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4th INTERNATIONAL CONFERENCE ON EDUCATIONAL TECHNOLOGY AND ONLINE LEARNING

4. ULUSLARARASI EĞİTİM TEKNOLOJİLERİ VE ÇEVRİMİÇİ ÖĞRENME KONFERANSI

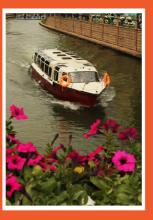# [ABSTRACT PROCEEDINGS]

[BİLDİRİ ÖZETLERİ KİTABI]

15-17 MAY 2024

Anadolu University, Eskişehir, TÜRKİYE

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4th INTERNATIONAL CONFERENCE ON EDUCATIONAL TECHNOLOGY AND ONLINE LEARNING

ABSTRACT PROCEEDINGS

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BİLDİRİ ÖZETLERİ KİTABI

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Conference Venue: Student Center
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Table of Contents

(3) Çevrimiçi Süreçsel Drama Çalışmalarında Web 2.0. Araçlarının Kullanımı

Gökhan Karaosmanoğlu
Ankara University

COVID-19 ve devam eden süreç sanat eğitimi alanında çevrimiçi araçların etkin kullanımı konusunda yeni bakış açılarının ortaya çıkmasına katkı sağlamıştır. Bu alanlardan biri de süreçsel drama eğitimidir. Katılımcıların drama eğitmeniyle bir konuya, probleme ya da bir duruma yönelik ortak bir dramatik kurgu geliştirdikleri, doğaçlamaya ve keşfe dayalı süreçsel drama çalışmaları son yıllarda çevrimiçi ortamlarda da yapılmaya başlanmıştır. Dijital bir platformda gerçekleştirilen bu çalışmalarda çeşitli dijital araçlar kullanılmaktadır. Bu araçların kullanımı sayesinde fiziksel ortamdaki drama etkinliklerinin dijital platforma taşınması yerine çeşitli dijital araçların kullanımıyla birlikte zenginleştirilmiş, farklı fırsatlar sunan içerikler tasarlanmaya başlanmıştır. Bu çalışmada Web 2.0. araçlarının çevrimiçi ortamda gerçekleştirilen süreçsel drama çalışmalarında nasıl kullanılabileceğine yönelik bir çerçeve sunulacaktır. Bu amaçla Padlet, Google Jamboard ve Google Documents araçlarının siber zorbalığa yönelik tasarlanan süreçsel drama atölyesinde kullanımı yorumlayıcı yaklaşım ve niteliksel veri analizi ile incelenmiştir. Katılımcıların Padlet kullanarak oluşturdukları dramatik kurguya yönelik tasarım, Google Documents ile karakterlerin, mekanın ve çatışmaların kullanıldığı doğaçlamalar ve Google Jamboard yardımıyla siber zorbalığa yönelik oluşturulan kavram haritaları çalışma kapsamında analiz edilmiştir. Araştırma sonuçları Web 2.0 araçlarının süreçsel drama çalışmalarında dramatik kurgunun oluşturulmasında (ön metin oluşturma, doğaçlamaları tasarlama, karakterlerin özelliklerini, diğerleriyle ilişkilerini ve bağlantılarını belirleme ve karşılarına çıkan sorunları tanımlama, dramatik kurguya yönelik çeşitli haritalar sunma), değerlendirme yapılmasında, gruplara eş zamanlı çalışma olanağı sağlamada, katılımcıların ya da grupların birbirini gözlemlemesinde ve yazılanlar üzerine tartışmasında etkin biçimde kullanıldığını göstermiştir. Araştırma sonuçlarına göre tüm bu etkilerin ortaya çıkmasında katılımcıların Web 2.0. araçlarını kullanma konusunda bilgi sahibi olması önemlidir. Katılımcılara süreçsel drama çalışması öncesinde yapılacak bilgilendirme Web 2.0. araçlarının daha etkili kullanılmasını sağlayacaktır.

Anahtar Sözcükler: Çevrimiçi süreçsel drama, Süreçsel dramada Web 2.0. araçları, Web 2.0. araçlarıyla dramatik kurguyu oluşturma

(4) Çevrimiçi Drama Dersinde Eleştirel Düşünme Becerilerilerine Öğrenci Gözüyle Bir Bakış

Gökhan Karaosmanoğlu

Ankara University

COVID-19 eğitimin tüm alanlarında olduğu gibi drama eğitimi konusunda da çevrimiçi içeriklerin geliştirilmesine neden olmuştur. Bu durumun bir fırsata dönüştürülmesi hem drama hem de sanat eğitimi alanında farklı perspektiflerin ortaya çıkmasını sağlamıştır. Çevrimiçi ortam bir yandan katılımcılara mesafeyi, ekonomik şartları, zamanı gözeterek kapsayıcı bir zemin sunarken diğer yandan araştırmacıları ve eğitimcileri sahip olduğu kısıtlılıklar üzerine düşünmeye, söz konusu kısıtların üstesinden gelme konusunda çözüm önerileri bulmaya davet etmektedir. Bu araştırmanın amacı çevrimiçi drama dersi alan öğrencilerin, dersin eleştirel düşünme becerilerinin gelişimine ve okudukları bölüme etkisine yönelik görüşlerinin belirlenmesidir. Bu araştırmanın katılımcıları 2022-2023 Eğitim-Öğretim yılında Ankara Üniversitesinde çevrimiçi ortamda yürütülen drama dersine katılım sağlayan ve farklı bölümlerde okuyan 72 öğrencidir. Araştırma kapsamında öğrencilerin drama dersine yönelik deneyimlerini, düşüncelerini ve duygularını anlamlandırmayı hedefleyen yorumlayıcı nitel araştırma deseni kullanılmıştır. Oluşturulan "Çevrimiçi Drama Dersini Değerlendirme Formu" öğrencilerle çevrimiçi ortamda paylaşılmış, soruların yanıtlanması beklenmiş ve elde edilen öğrenci yanıtları betimsel analiz ile çözümlenmiştir. Öğrencilerin drama dersine yönelik görüşleri, eleştirel düşünme becerilerine ve mesleki yaşamlarına katkısı kapsamında incelenmiş, bu süreçte dijital platformun, çevrimiçi araçların ve dramanın olanaklarının gelişimlerinde nasıl bir etkisi olduğu katılımcı geri bildirimleri temel alınarak tartışılmıştır. Araştırma bulguları çevrimiçi drama dersinin katılımcıların eleştirel düşünme becerilerine (sorgulama, yorumlama, analiz etme, değerlendirme) yaratıcılıklarına, analitik düşünme, algoritmik düşünme, problem çözme, alternatif yollar oluşturma, farklı bakış açıları geliştirme becerilerine katkı sağladığını ortaya koymaktadır. Katılımcılar çevrimiçi drama dersinde gerçekleştirilen doğaçlamalara benzer durumların gerçek yaşamda ve mesleki alanda karşılarına çıkabileceğini, bu konuda drama dersinin mesleki ve kişisel anlamda kendilerine katkı sağladığını ifade etmişlerdir. Bu nedenle, çevrimiçi drama dersinin mesleki ve kişisel anlamda katılımcılara katkı sağladığı düşünülebilir.

Anahtar Sözcükler: Çevrimiçi drama dersi, Drama ile eleştirel düşünme becerileri, Drama eğitimi ve COVID-19

(5) Initial Teacher Training e-Mentoring Model: ITTeM

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This study introduces the Pre-Service Teacher Training e-Mentoring Model (ITTeM). The model developed as the outcome of a three-year research process in a mixed pattern. The research process can be divided into three stages. During the 'Planning' phase, the conceptual framework of a formal e-mentoring relationship was developed, and the digital platforms used in mentoring were examined. In addition, a survey was conducted to determine the issues that initial teachers need support for and their expectations regarding the e-mentoring relationship. A formal e-mentoring program was designed at the end of the planning phase, where experienced teachers would e-mentor initial teachers. The program was implemented for six months during the 'Implementation' phase, and data for process and result evaluation were collected and analyzed. Studies in this phase were supported within the scope of the Scientific and Technological Research Council of Türkiye (TÜBİTAK) special call titled 'COVID-19 and Society: Social, Human and Economic Effects of the Pandemic, Problems and Solutions' under the '1001-Scientific and Technological Research Support Program'. In the 'Evaluation' stage, the results obtained during the research were interpreted holistically, and an e-mentoring model that could be used in initial teacher training was developed. In this paper, the model is explained in full detail, and its components and the relationships between these components are discussed.

Anahtar Sözcükler: Initial teacher training, e-mentoring, model development.

(6) Minecraft Eğitim Oyunun Bilsem Destek 1 Düzey Öğrencilerinin Yabancı Dil Öğrenmelerindeki Rolünün İncelenmesi; "İngilizce Minecraft Dünyamız Çalışması"

Fatma Uludağ
Kdz. Ereğli Şahinde Hayrettin Yavuz Bilim ve Sanat Merkezi

Gökberk Keserci
Kdz. Ereğli Şahinde Hayrettin Yavuz Bilim ve Sanat Merkezi

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Arda Akbaş
Kdz. Ereğli Şahinde Hayrettin Yavuz Bilim ve Sanat Merkezi

Fatma Uludağ 1, Gökberk Keserci 2, Mira Yücel 3, Nehir Erdoğan 4, Arda Akbaş 5 Günümüzde yabancı dil öğreniminde eğitsel dijital oyunlar giderek yaygınlaşmakta ve etkisini arttırmaktadır. Eğitsel dijital oyunlardan biri olan Minecraft Eğitim Oyunun, Karsenti ve Bugmann (2017), öğrenciler üzerindeki eğitsel potansiyelinde olumlu öğrenme ortamları sağlandığı öğrencilerin yeterliliklerinin geliştirdiği görülmektedir. Bu bağlamda araştırma amacımız; Minecraft Eğitim Oyunun Destek 1 Düzeyindeki Öğrencilerin Yabancı dil öğrenemelerindeki rolünü incelemek olmuştur. Oluşturduğumuz, 'İngilizce Minecraft Dünyamız' adlı çalışmamız ile 2023-2024 Eğitim Öğretim Yılı İngilizce Dersi Müfredat Programı 3. Sınıf ünite kazanımlarını içine almaktadır. Araştırmanın öğrenci çalışma grubunu, 2023-2024 eğitim-öğretim Bilim ve Sanat Merkezinden Destek 1 düzeyindeki 20 öğrenci oluşturmaktadır. Çalışma, 10 hafta sürmüş olup, veri toplama aracı olarak araştırmacılar tarafından geliştirilen yarı yapılandırılmış görüşme formu kullanılmıştır. Araştırma verileri, yüz yüze odak görüşmeleriyle toplanmıştır. Verilerin analizinde, nitel araştırma yöntemlerinden içerik analizi tekniği kullanılmıştır. Araştırmanın bulguları sonucunda, Minecraft eğitim oynun İngilizce öğreniminde sınırsızca oyun oynama imkânı sağladığı, hem eğitici hem eğlenceli bir rolünün olduğu, İngilizce dil becerilerinden okuma, yazma becerilerinin ve kelime bilgisini geliştiren bir rolü olduğunu göstermektedir. Minecraft eğitim oyunundan sonra İngilizce öğrenme isteği oluştuğu bununda çalışma grubu öğrencilerinde İngilizce öğreniminde özgüven artırma ve kaygıyı azaltma rolllerininde olduğu sonucuna ulaşılmıştır. Anahtar Kelimeler: Eğitsel dijital oyun, Minecraft eğitim oyunu, yabancı dil öğrenimi.

Anahtar Sözcükler: Eğitsel dijital oyun, Minecraft eğitim oyunu, yabancı dil öğrenimi.

(7) Investigation of Pedagogical Formation Certificate Program Teacher Candidates' Perceptions towards Distance Education in Terms of Various Variables

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Rapid developments in science and technology are affecting and changing education systems and many other fields globally. Today, distance education, which is defined as conducting education and training activities without physical interaction through tools such as television, computers, tablets, and mobile phones, shows some differences from traditional education. Distance education differs from face-to-face education by appealing to different age and occupational groups, not being bound by time and space constraints, adapting to individual learning preferences, and allowing the use of different media tools. On the other hand, the COVID-19 pandemic, which emerged in 2019 and affected the whole world, has deeply affected education systems as well as all systems. In this distance education process where face-to-face education was disrupted, educational institutions from primary school to university started to employ various distance education platforms to continue education. At the point we have reached today after the pandemic, various courses and their contents are offered to students in many universities globally by utilizing distance education and technology infrastructure. In pedagogical formation certificate programs, some courses and documents related to the courses are also offered remotely by universities through Learning Management Systems (LMS). Therefore, teacher candidates attending pedagogical formation certificate programs have the opportunity to experience face-to-face and distance education at the same time. The aim of this study is to determine the perceptions of pre-service teachers from various branches in the pedagogical formation certificate program about the distance education process and to examine them in terms of some demographic data of the participants. In the study, sequential explanatory design, one of the mixed research models, was used. The study group consisted of 84 pre-service teachers from different branches studying in the pedagogical formation certificate program of a state university located in the northeast of Turkey. The quantitative data of the study were collected through Google Forms by using the Distance Education Perception Scale to determine pre-service teachers' perceptions towards distance education, as well as questionnaire items probing some demographic data about the participants (age, gender, graduation field, teaching field). The quantitative data obtained will be analyzed through descriptive analysis. The qualitative data of the study were obtained by conducting semi-structured interviews with 3 pre-service teachers who were selected from the participant pre-service teachers by considering their different ages and branches. The interview data will be transcribed and then subjected to content analysis. From the perspective of the participant pre-service teachers, some suggestions were developed to make the distance education process more efficient.

Anahtar Sözcükler: Pedagogical formation, pre-service teachers, Distance education

(8) What drives Higher Education Professionals' AI use in education: a perspective of AI anxiety

Ayşegül Liman Kaban
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As the landscape of education evolves with the integration of artificial intelligence (AI), educators are compelled to adapt and develop AI-related skills. This study delves into how the anxieties surrounding AI learning and job displacement influence higher education professionals' motivations to learn about AI, both intrinsically and extrinsically, thus impacting their intentions to engage in AI learning. Furthermore, it investigates the role of learning self-efficacy in moderating these relationships. Through an online survey conducted among educators in Turkey and employing partial least squares structural equation modeling (PLS-SEM), the study reveals that AI learning anxiety hampers learning motivations, while anxiety related to job displacement by AI fosters extrinsic motivation. Additionally, it finds that learning self-efficacy positively influences both intrinsic and extrinsic motivations, thereby affecting learning intentions. The research highlights the moderating effect of learning self-efficacy, showing its positive influence on the relationship between intrinsic motivation and educators' intentions to learn about AI and a negative influence on the relationship between extrinsic motivation and the same intentions. These findings emphasize the importance of addressing AI-related anxieties and provide valuable insights for the development of AI-focused educational programs.

Keywords: generative ai, beliefs about generative ai, ai readiness, ai anxiety

(9) Assessing the Effectiveness of ICT Infrastructure and Connectivity in Promoting Access to Quality Education in Mauritius

Gunnoo Chitisha

This research study aims to assess the effectiveness of ICT infrastructure and connectivity in promoting access to quality education in Mauritius, with a specific focus on open and distance learning (ODL). The study utilizes a case study approach to examine the current state of ICT infrastructure and connectivity in Mauritius and its impact on the accessibility and quality of education through ODL. The objectives of this research are twofold: first, to evaluate the existing ICT infrastructure and connectivity in Mauritius, including internet accessibility, bandwidth, and availability of technological resources for ODL. Second, to analyze the impact of ICT infrastructure and connectivity on promoting access to quality education in ODL programs, including factors such as student enrollment, engagement, and learning outcomes. The research methodology involves a combination of quantitative and qualitative approaches. Data will be collected through surveys administered to ODL students, educators, and administrators, as well as interviews and focus group discussions. The survey responses will be analyzed using statistical techniques to identify patterns and trends, while qualitative data will be thematically analyzed to gain deeper insights into the experiences and perspectives of stakeholders. The proposed outcomes of this research include recommendations for improving ICT infrastructure and connectivity in Mauritius to enhance access to quality education through ODL. These recommendations will be based on the findings regarding the current challenges and opportunities in ICT infrastructure, connectivity, and their impact on ODL. The research findings and recommendations are expected to contribute to the achievement of Sustainable Development Goal 4 (SDG 4) on quality education, specifically target 4.3 on equal access to affordable and quality technical, vocational, and tertiary education. By assessing the effectiveness of ICT infrastructure and connectivity in promoting access to quality education in Mauritius's ODL programs, this research study intends to provide valuable insights and recommendations for policymakers, educational institutions, and other stakeholders to enhance educational opportunities and bridge the digital divide.

Keywords: ICT infrastructure, Connectivity, Open and Distance Learning (ODL)

(10) The Struggles of New Learners: Characteristics of Dropout Indonesia's Online Students

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This research investigated some characteristics of dropped out online learning students within the first year. This study used interview data from 16 participants from three dissimilar locations: Jakarta (metropolitan), Palembang (urban), and Ambon (rural). Purposive sampling was used in this study. It was expected that they would be a reliable source of authentic information. To ensure research ethics, the names of the institution and interviewees were kept confidential and anonymous. Prior to data collection, the research questions were refined into some guiding questions. The interviewers used appropriate probing techniques to encourage participants to provide additional information. The interviews were taped and transcribed for analysis. The results showed that some characteristics indicates the causes of students dropping out of their online learning, including balancing multiple roles, living in remote or rural areas, financial difficulties, lack of motivation, having difficulties in self-learning, insufficient learning support, gender in balancing multiple roles, and having geographic barriers. The findings revealed various characteristics of dropout students as well as the reasons why they dropped out in online learning. As a result, the university must take comprehensive approaches to address the issues, allowing students to complete their studies on time.

Keywords: characteristics, dropout students, online learning, qualitative, thematic analysis

(11) Empowering cancer education: A comprehensive analysis of the e-oncología platform

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The escalating global cancer burden, characterized by a 2.3% increase in incidence and a 2.4% rise in mortality in 2022, underscores the critical need for robust cancer care strategies. These strategies should not only focus on prevention, diagnosis, treatment, or support but also on training. This study delves into the transformative role of education and training in the field of oncology, focusing on the e-learning platform "e-oncología" from the Institut Català d'Oncologia, a comprehensive cancer center located in Catlonia (Spain). Aligned with European Commission guidelines, the platform, with a rich two-decade history, spans 104 countries, serving more than 82,000 students through 110 courses and 2,350 educational hours. The research utilizes a comprehensive approach, incorporating retrospective analysis, to delve into the origins of "e-oncología" and identify the success factors guiding its evolution. It scrutinizes the pedagogical methodology within the e-learning context and closely examines key contributors, such as collaborations and partnerships, contributing to its global reach. Likewise, "e-oncología" actively contributes to cancer education research projects, receiving support from both industry and national/international public funding. The findings highlight the platform's efficacy in providing evidence-based and multidisciplinary training aimed to all healthcare professionals involved in the care of cancer patient. The study concludes by forecasting future trends in oncology distance education and advocates for innovative approaches to elevate the training of healthcare professionals. Recommendations include sustained collaboration across academia, industry, and public sectors to ensure the enduring impact and expansion of e-learning initiatives and the associated research.

Keywords: oncology, e-learning platform, distance education, healthcare professionals training, research projects.

(12) Digital Learning Objects: A Preliminary View

Oya Ozgun
Bahcesehir University

Learning objects (LOs) are tangible products known in both in-person and online learning environments and they are helpful in promoting learning. As Wiley (2000) emphasized that LOs are like LEGO blocks. Same LEGO blocks are used to link different connections just like LOs. LOs in both face to face and online learning environments are connected in different ways to structure multiple learning experiences. Their attributions are reusability, modularity, portability, durable, generative, and accessible. These objects are advantageous for both teachers and learners. Teachers are able to search for existing content because the content is already standardized for extensive use. Besides, these objects can serve as individualized learning. However, both teachers and learners need to be trained to use LOs effectively. LOs' design is also significant to multimedia learning principles. Some LOs' availability is limited. Teachers and learners can access to digital learning objects (DLOs) through repositories which are storage systems where files are available. There are many international and national repositories which address various learning levels and learning subjects. Some of the international digital learning object repositories (DLORs) are MERLOT, Wisc-online, VCAMPUS, POOL and more are explained in this study. The most recent national DLORs are Vitamin and EBA which were developed in 2019. These objects include various subjects in different forms of LOs such as descriptive texts, audio and visual materials, interactive textbooks and etc. All in all, this paper aims to provide a thorough overview of LOs, explores the conceptual framework of LOs, differentiates LOs with the other instructional materials, emphasizes advantages and disadvantages of LOs, elaborates both international and national DLORs, and finally analyzes previous experimental studies and recommends for further future studies regarding LOs.

Keywords: Learning Objects, Digital Learning Objects, Distance Education, Learning Object Repositories, National Learning Objects

(13) Performance Level on System Scalability for Online Learning Delivery in Open Distance Learning

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There is an urgent call for transitioning our educational system to online open distance learning without face-to-face mode of teaching and learning methods. This call has persisted in the pre and post covid 19 era, emphasizing the feasibility of implementing technology-enhanced learning. The purpose of this paper is to develop and analyse the performance level on system scalability for open distance learning platform that makes knowledge acquisition processes easier for learners. This paper makes use of mixed method as the adopted methodology. Therefore, the data collection is via teachers as the teaching content provider and learners as the learning content consumer. The system testing is on system scalability, with the following testing metrics: stability, time of request for learners, time localhost receives request, time to response, roundtrip, and network usage. The metrics testing is achieved using wireshark application for analyze the network, Apache benchmarking console and gnuplot application to generate the data captured and performance graph. The results findings on the system scalability shows stability based on graph from 50-80% at 2ms, 90-95% at 3ms, 95-98% at 4ms, and 99-100% at 5ms and it can be deduced that the scalability system can accommodates changes. The longest roundtrip is 8seconds because of network congestion with multiple packets request from various sources trying to access the localhost at the same time while the fastest is 1second. In conclusion, the result means that the performance level has a positive impact for leaners on time of response for content management processes. Hence, the recommendation is to adopt technology enhanced learning in respect of teaching and learning methodology approaches.

Keywords: Knowledge acquisition, Open distance learning , Educational system, Content managemnt processes

(14) Research on Enhancing Practical Learning Effectiveness by Incorporating Mixed Reality into Technical Training Courses

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Research on the use of Mixed Reality (MR) in education tends to focus predominantly on the fields of science, mathematics, language, arts, education, or environmental navigation. Most studies revolve around the theme of learning motivation. In theory, the characteristics of MR are conducive to learners' perception and interaction in practical operations. Virtual objects can make it easier for learners to perform hands-on activities in technical training. However, the practical application still requires further research. Given this, this study integrates MR into mechanical inspection and maintenance education, exploring the impact of MR on students' reflection on practical skills and learning effectiveness. The research adopts a qualitative and quantitative approach. Based on the results of technical proficiency tests and reflective situations, the study examines the influence of using MR in technical learning activities on learners' learning performance. By analyzing the alterations in learners' reflective processes throughout their learning journey, this study also examines the influence of MR on learners' reflection. The research results indicate that MR has a significant impact on promoting learners' reflective thinking. Moreover, applying MR in mechanical inspection and maintenance education can further enhance learners' technical abilities. It is inferred that integrating MR into practical operation learning in technical training is feasible. Therefore, future designs for technical training education may consider incorporating MR technology to construct an integrated environment combining physical and virtual elements.

Keywords: Mixed Reality; Technical Training; Learning Performance

(15) E-mentorluğun Yaşam Döngüsü

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Mentorluk felsefesinin geçmişi oldukça eski tarihlere dayanmaktadır. Amaç, süre, formal veya informal olma gibi farklı durumlar dikkate alınarak mentorluk ilişkileri çeşitli sınıflandırmalara tabi tutulmuş ve böylece alanyazına yeni kavramlar kazandırılmıştı. Bunlardan birisi olan e-mentorlukta etkileşimin odağında bilgi ve iletişim teknolojileri bulunmaktadır. Farklı sektörlerdeki kullanımı hızla yaygınlaşan e-mentorluk modeli, eğitim ortamlarında da kabul görmüştür. Amerika ve Avrupa ülkeleri ile kıyaslandığında Türkiyede'ki uygulamalar nispeten daha yeni olsa da e-mentorluğun geleceğine yönelik öngörüler ülkemizdeki uygulamaların da giderek yaygınlaşacağına işaret etmektedir. Bu bağlamda bilimsel bilgiler üzerine yapılandırılmış 'yol haritası' işlevini görmeye yönelik çalışmaların bilhassa formal e-mentorluk ilişkilerinin oluşturulmasında eğitimciler ve araştırmacılar için faydalı olacağı düşünülmektedir. Bu araştırma, 'e-mentorluğun yaşamsal döngüsü nedir ve bu döngü neyi gerektirir?' sorusundan yola çıkılarak gerçekleştirilmiş bir literatür taramasıdır. Mentorluk felsefesinin çatı kavram olarak ele alındığı çalışmada, e-mentorluğu özel kılan yönleri üzerinde durulmaktadır. Gerçek hayat metaforları ile sunulan mentorluk süreci, etkileşimde teknoloji kullanımı odağında e-mentorluk modeline taşınmaktadır.

Anahtar Sözcükler: Mentorluk, e-mentorluk, bilgi ve iletişim teknolojileri

(16) Navigating the Learning Landscape of Mini Research in Project-Based Tasks within an Oriented Curriculum Outcome-Based Education (OBE)

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Mini-research activities are tasks carried out by students as a form of project-based task. Learning measurement in the Outcome-Based Education (OBE) curriculum focuses on understanding the material and improving skills by implementing learning theories in the learning process. This research aims to analyze and explore the application of project-based task learning through implementing mini-research in the OBE-based curriculum. Through the implementation of mini research, this project-based task was carried out by students of the Universitas Terbuka Basic Education Masters Study Program in Semester 1. This mini-research assignment was carried out as one of the Integration of Learning Theory and Practice course assignments. Mini-research is carried out by students in the learning process in their classes. Implementation of mini-research includes planning, implementation, and report preparation stages. This research uses descriptive quantitative methods. The research instruments used questionnaires, interviews, and document analysis of student research mini-reports. The questionnaire is used to determine the implementation of mini-research, which includes understanding the material in the module, making plans, carrying out mini-research in learning, and compiling reports. 137 students filled in the questionnaire. Interviews were also conducted with 21 students representing seven classes taking this course. Data analysis uses descriptive techniques by calculating the percentage of student answers and document analysis results. The results of the analysis show that (1) 61% of students understand the material very well, (2) 64% of students understand simple research assignments, (3) 64% of students say they can carry out assignments very well, (4) 61% of students stated that they could prepare research reports very well; (5) the average similarity level of students' reports reaches 24%; (6) students think that project-based task can increase their insight in preparing scientific papers. Based on these results, it can be concluded that through project-based task, students can apply learning theory in the learning process. Apart from that, project-based task through mini-research provide experience for students in compiling scientific papers and can be followed up as preparation for the final assignment. Carrying out mini-research as one of the project-based tasks has been implemented in an outcome-based education curriculum.

Keywords: Mini Research, Outcome-Based Education, Learning Theory and Practice, Project-Based Tasks

(17) Pre-service Special Education Teacher Training in Virtual Classrooms

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It is known that special education teachers do not present evidence-based practices (EBPs) with fidelity for various reasons. One of these reasons is that they do not gain enough experience on how to transfer the theoretical knowledge they receive about the EBPs to the classroom environment. In order to eliminate this limitation, it is seen that virtual classrooms have been created to enable pre-service teachers to gain experience in these practices. In virtual classrooms that resemble the real classroom environment, pre-service special education teachers (PRSET) are provided with practical experience on the EBPs. The purpose of this study is to describe virtual classrooms applications, to explain why and how virtual classrooms are used in supporting the professional development of the PRSETs based on the literature, to introduce virtual classroom studies conducted with the PRSETs, and to provide suggestions on how virtual classrooms can be used more effectively in special education teacher training programs. In this study, which is planned as a review study, a descriptive literature analysis was conducted from a critical perspective. According to the literature analysis, it is seen that virtual laboratories (e.g. TeachLivE ™) or classroom simulations (e.g. Behavior Breakthrough ™, simSchool ™) are created in order to support the PRSETs to gain practical experience regarding the education they will provide for students with different types and levels of disabilities. It is seen that virtual classroom applications cause the PRSETs to feel more confident in presenting the EBPs, allows a more active learning process compared to traditional education methods, and allows deep and broad learning without any negativity on a real student. Also, teacher educators noted that the use of an avatar enabled them to target specific skills that needed repeated practice without "tiring, confusing, or frustrating an actual student". In conclusion, virtual classrooms offer promise to pre-service teachers in developing confidence and competency prior to in-service teaching experiences. It is seen that very few virtual classroom studies have focused on classroom management and intervention in student behaviors. Virtual classrooms can be created to develop and support the different roles of special education teachers, and there is a need for studies on whether the PRSETs transfer the skills they acquire in virtual classrooms to the real classroom environment.

Anahtar Sözcükler: virtual classrooms, , pre-service special education teachers, , teacher education, , educational technology

(19) E-Öğrenme Materyallerinin Evrensel Tasarım Yaklaşımı Bağlamında İncelenmesi

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Bilgisayar ve internet kullanımının yaygınlaşması, çoklu ortam tasarımlarının geliştirilmesini ve daha yaygın kullanılmasını sağlamaktadır. Bununla birlikte çoklu ortam tasarım sürecinde birbirinden farklı fiziksel, duyusal veya bilişsel özellikteki bireyler için kapsayıcı bir tasarım yaklaşımının önemi artış göstermektedir. Çoklu ortam tasarımları birbirinden farklı kanallarla öğrenme sağlanan etkileşimli materyaller olarak tasarlanabilmektedir. Örneğin, bir bilgi metni görme duyusuna hitap edecek biçimde kullanıcıya sunulabildiği gibi aynı zamanda işitme duyusu ile de algılanabilecek şekilde erişilebilir hale getirilebilmektedir. Gelişen teknolojiler sayesinde bu materyaller, farklı fiziksel ve bilişsel özelliklere sahip olan kullanıcılar için kapsayıcı bir yaklaşım ile tasarlanabilir. Böylelikle büyük kullanıcı kitlelerine sunulan materyaller için erişilebilirlik sağlanmış olur. Bu çalışmanın amacı evrensel tasarım ilkeleri bağlamında çoklu ortam materyallerinin sahip olması gereken özellikleri araştırmak ve geniş öğrenme kitlesine sahip Açıköğretim Sistemi içerisinde bulunan etkileşimli öğrenme materyallerinin kapsayıcı hale getirilebilmesi için önerileri sunmaktır. Araştırmada döküman analizi yöntemi kullanılarak Articulate Storyline etkileşimli materyal hazırlama programının 2022 yılında yayımlanmış olan Erişilebilirlik Raporu ve Anadolu Üniversitesi Açıköğretim Sisteminde kullanılan öğrenme yönetim sistemi Anadolum eKampüs'teki etkileşimli öğrenme materyalleri incelenmiştir. Araştırmanın sonucunda raporda yer alan kriterler bağlamında Anadolum eKampüs'te bulunan etkileşimli materyallerin kapsayıcı hale getirilebilmesi için öneriler sunulmuştur.

Anahtar Sözcükler: E-öğrenme, Evrensel tasarım, Web erişilebilirliği, Çoklu ortam materyalleri

Not: Bu çalışma Dr.Öğr.Üyesi Emel GÜLER danışmanlığında 12 Haziran 2023 tarihinde tamamladığımız 'E-Öğrenme Materyallerinin Evrensel Tasarım Yaklaşımı Bağlamında İncelenmesi' başlıklı tezsiz yüksek lisans dönem projesi esas alınarak hazırlanmıştır.

(21) Revolutionizing Educ-AI-tion: Shaping the Classrooms of the Future

Ezgi Ögretici

Morpa Kampus

A new era is taking shape in education with the rapid growth of artificial intelligence (AI). Studies about artificial intelligence (AI) in education are growing, and many people think that teachers and school leaders will have different jobs in the future. Therefore, the goal of this study is to look at how AI has changed over time in education and talk about the positive and negative effects of using AI in education. The results show the benefits of AI in education, such as making education more accessible, saving time and money, giving everyone access to high-quality education, and getting students more interested and motivated. Conversely, the challenges are bias reinforcement, data privacy and security, misinformation, loss of human connection, overreliance, plagiarism, ethical concerns, and threats to lose jobs. A significant aspect of this study is to analyse the status of Turkey in the usage of artificial intelligence in education. Following the literature reviews, it is clear that using AI in education has a lot of potential for growth. The article aims to help learners to inverstigate the usage of AI in education and make them realise the regulations that are needed to be done ethically in the future.

Keywords: Artificial Intelligence, Education, AI, AIEd, Ethics, Policy, Privacy, Artificial intelligence in education, Educational Chatbots.

(22) Sustainability in STEM Higher Education Programmes: Empowering Learners for Present and Future Roles in Work and Society

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The idea of sustainability, including sustainable development and the associated goals, has garnered significant attention from scientists, environmentalists, global leaders, and various stakeholders. At the same time, the progress in Science, Technology, Engineering, and Mathematics (STEM) and the related industries is crucial for achieving a significant portion of the sustainable development goals. Providing university students with knowledge, comprehension, and skills, while nurturing the next generation of innovators and leaders, has the potential to instigate the necessary change and make a tangible impact on the path to a sustainable future. In this presentation, I will investigate the strategies employed to incorporate sustainability into STEM programs, encompassing approaches to learning, teaching, and assessments. I will also explore the initiatives undertaken by universities to infuse sustainability into STEM education. It is important to note, that there is a need for top-notch STEM education that exposes students to innovative teaching strategies, interactive learner-centered approaches, and conducive learning environments to fulfill the demands of Education for Sustainable Development. Conventional teacher-centered methods constrain opportunities for experiential learning, critical thinking, reflective reasoning, and engagement in solving intricate problems, hindering the development of responsible citizenship.

Keywords: higher education, sustainability, STEM programmes, sustainable development goals, education for sustainable development

(23) Monitoring student actions during online testing using machine learning

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As a result of the widespread spread of education and assessment in the internet system, ensuring the integrity of online testing has become a major problem for educational institutions. Traditional proctoring methods may not be possible or scalable in an online environment, requiring the use of automated approaches. Machine learning offers promising opportunities to track students ' actions during online testing, allowing them to identify suspicious behavior that indicates academic dishonesty. This article provides a comprehensive overview of the process of monitoring the actions of students during online testing using mashchina teaching methods. The process includes several basic steps: data collection, feature acquisition, data preprocessing, sample selection, training, evaluation, deployment, and feedback loop. Data collection involves various aspects of student interaction during online tests, including timestamps, mouse movement, keystrokes, and browser interaction. The research work was considered by students of the educational programs "6B01511-Informatics", "7m01511-Informatics", "7M01525-STEM education", "8D01511-Informatics" of the Eurasian National University named after L. N. Gumilyov. As a result, using machine learning to monitor students ' actions during online testing is a promising way to improve the integrity and security of online assessment while reducing the burden on teachers and administrators.

Keywords: proctoring, educational portal, machine learning, face recognition, artificial intelligence, higher education.

(24) Öğrencilerin Bakış Açısıyla Mahmut Arslan Anadolu Lisesi Özelinde Tarih Derslerinin Uzaktan Eğitiminde Yaşanılan Sorunlar

Oğuzhan Sakarya

Mahmut Arslan Anadolu Lisesi

Bu araştırmanın amacı, Mahmut Anadolu Lisesi'nde uzaktan eğitim döneminde tarih dersine katılan öğrencilerin, online derslerde alınan verim ve karşılaştıkları sorunlar açısından görüşlerini belirlemek ve uzaktan eğitimde kullanılan materyallerin ve öğretim tekniklerinin öğrenme sürecine etkisini incelemektir. Bu araştırma deneysel olmayan nicel araştırma yaklaşımına göre tasarlanmış olup, araştırmada tarama modeli kullanılmıştır. Tarama modelinde geçmişte veya halen var olan bir durum var olduğu şekliyle betimlenmeye çalışılır. Çok sayıda elemandan oluşan bir evrende, evren hakkına genel bir yargıya varmak amacıyla evrenin tümü ya da ondan alınan bir örneklem üzerinden araştırma yapılması durumunda bu genel tarama modeli kullanılmaktadır. Örneklemden veri toplama için ise anket tekniği kullanılmıştır. Anket, birincil kaynaklardan bilgi toplamak için hazırlanan sistematik bir soru formudur. Bu tekniği kullanmadaki amaç araştırmanın problemini çözecek ve ele alınan hipotezleri test edecek bilgileri sistematik bir biçimde toplamak ve saklamaktır. Araştırmanın evrenini Mahmut Arslan Anadolu Lisesi'nde pandemi döneminde uzaktan eğitim alan öğrenciler oluşturmuştur. Örneklem seçimi, gönüllülük esasına göre yapılmıştır. Bu kriterlere göre, pandemi döneminde online eğitim gören çalışmaya katılmıştır. Veri toplama aracı olarak tarafımdan geliştirilen anket kullanılmıştır. Anketin geliştirilmesi sürecinde literatür taraması yapılmış, konuyla ilgili yapılan araştırma sonuçları dikkate alınmıştır. Araştırma verileri çevrimiçi anketin yanıtlanması yoluyla toplanmıştır. Verilerin betimsel analizi için (SPSS21) bilgisayar programı kullanılmıştır. Elde edilen bulgular ışığında öğrencilerin teknolojik kaynak ve internet erişiminde sıkıntı yaşadıkları görülmektedir. Uzaktan eğitime hızlı geçişle birlikte öğretmenlerin hazırlıksız oldukları, uzaktan eğitimin etkililiği açısından dijital araçları etkin kullanamaması, öğrencilerle etkili iletişim kuramaması karşılaştıkları en önemli sorunlardır. Tarih dersi özelinde ise öğrenmeyi destekleyeci materyal hazırlanmaması, ölçme ve değerlendirme, sınıf ve zaman yönetimi, dijital öğrenme kaynakları geliştirme gibi bilgi ve becerilere sahip olmamaları en önemli sorunlar olarak karşımıza çıkmaktadır. Araştırma sonuçları genel anlamda değerlendirildiğinde öğretmenlerin uzaktan eğitim konusunda pedogojik anlamda eksiklikleri olduğu, içerik oluşturma, sınıf yönetimi, ölçme ve değerlendirme, sunum yapma vb. gibi yeterliklerini artırmaya yönelik hizmet içi eğitimler yoluyla eğitimler verilmesi gerektiği ortaya çıkmaktadır.

Anahtar Sözcükler: Uzaktan Eğitim, Tarih Dersi, Materyal

(25) Classroom Management in Synchronous Online Classes: A Systematic Literature Review

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Distance education has become a must rather than a choice, as almost all students around the world started to study in virtual classrooms simultaneously, asynchronously, or both. Many teachers had to immerse into a visual classroom environment, where they had almost no experience of teaching in general and classroom management in particular, which has a great impact on the excellence of instruction. This study aims to examine the research on online live classes in the literature in terms of classroom management, or glassroom management referring to the computer screen through which the teaching takes place. Accordingly, 79 studies focusing on online live lessons were examined and data on the classroom management dimensions of "planning of instruction", "organizing the environment", "communication management" and "behavior management" in live lessons were analyzed. It is thought that the study will guide teachers who teach in virtual classrooms, researchers and school administrators especially during the epidemic period.

Keywords: Key Words: Online live lesson, virtual classroom, classroom management, virtual classroom management, synchronous lessons

(26) A Qualitative Exploration of Teacher Perspectives on Gamified Student Response Systems

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This qualitative research examines teachers' perspectives on the use of gamified student response systems (SRS) in educational settings. The study employs semi-structured interviews to explore teachers' views on the effectiveness of popular gamified SRS platforms, such as Kahoot, Quizizz, Socrative, and Mentimeter, in enhancing student engagement and improving learning outcomes. This paper aims to investigate the impact of game elements on student engagement within different systems. The research will examine teachers' experiences and perceptions to provide insights into the effectiveness of gamified student response systems in diverse educational settings. The study's findings are expected to inform the improvement of educational technology, contributing to the creation of more engaging and effective learning environments.

Keywords: gamification, student engagement, gamified srs, student response systems, kahoot, socrative, quizizz

(27) Ortaokul Öğrencilerinin Bilgisayarca Düşünme Becerileri, Problem Çözmeye Yönelik Yansıtıcı Düşünme Becerileri ve Araştırma Sorgulamaya Dönük Öz Yeterlilik Algılarının İncelenmesi

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Bu araştırmada ortaokul öğrencilerinin bilgisayarca düşünme beceri düzeyleri, problem çözmeye yönelik yansıtıcı düşünme becerileri ve araştırma sorgulamaya dönük öz yeterlilik algılarının incelenmesi amaçlanmıştır. Çalışmada nicel araştırma yöntemlerinden korelasyonel tarama modeli kullanılmıştır. Araştırmanın çalışma grubunu Amasya ilinde bulunan 5, 6, 7 ve 8. sınıf öğrencileri oluşturmaktadır. Araştırma 239'u kız ve 200'ü erkek olmak üzere toplamda 439 öğrenci katılmıştır. Bu öğrencilerden 79'u 5. sınıf, 120'si 6. sınıf, 121'i 7. sınıf ve 119'u 8. sınıf öğrencileridir. Araştırmada veri toplama aracı olarak bilgisayarca düşünme beceri düzeyleri ölçeği, araştırma sorgulamaya dönük öz yeterlilik algı ölçeği ve problem çözmeye yönelik yansıtıcı düşünme becerisi ölçeği kullanılmıştır. Ölçekler Google Form aracılığıyla öğrencilere ulaştırılmış ve veri toplama süreci tamamlanmıştır. Araştırmada elde edilen veriler betimsel istatistik, t testi, anova, korelasyon ve regrasyon analizleri kullanılarak analiz edilmiştir. Analiz sonucunda elde edilen bulgular doğrultusunda ortaokul öğrencilerinin genel olarak bilgisayarca düşünme beceri düzeyleri, araştırma sorgulamaya dönük öz yeterlilik algıları ve problem çözmeye yönelik yansıtıcı düşünme becerilerilerinin yüksek olduğu sonucuna ulaşılmıştır. Cinsiyet faktörü açısından öğrencilerinin problem çözmeye yönelik yansıtıcı düşünme becerileri ve araştırma sorgulamaya dönük öz yeterlilik algıları için kız öğrencilerin lehine fark varken bilgisayarca düşünme becerileri için anlamlı bir faklılaşma yoktur. Sınıf düzeylerine göre incelendiğinde öğrencilerin bilgisayarca düşünme becerileri ve araştırma sorgulamaya dönük öz yeterlilik algılarında anlamlı bir farklılık varken, problem çözmeye yönelik yansıtıcı düşünme becerilerinde fark görülmemektedir. Ayrıca, öğrencilerin bilgisayarca düşünme becerileri, problem çözmeye yönelik yansıtıcı düşünme becerileri ve araştırma sorgulamaya dönük öz yeterlilik algıları arasında pozitif yönde anlamlı bir ilişki olduğu sonucuna ulaşılmıştır. Son olarak, öğrencilerinin bilgisayarca düşünme becerileri, problem çözmeye yönelik yansıtıcı düşünme becerileri ve araştırma sorgulamaya dönük öz yeterlilik algıları birlikte birbirini yordadığı sonucuna ulaşılmıştır.

Anahtar Sözcükler: bilgisayarca düşünme, yansıtıcı düşünme, araştırma sorgulama becerisi

(28) AI Competence through AI Literacy: A Guiding Framework for Higher Education

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One of the fundamental missions of higher education should be to teach students how to work with artificial intelligence (AI) in their future professional roles. An important concept in guiding the efforts to prepare higher education students for an AI-driven world is AI literacy. However, the definition of AI literacy is not fixed and continues to evolve, with little empirical research on the topic. Therefore, it is important to offer a working definition of AI literacy that can be integrated widely into various areas of higher education curricula. Towards this goal, in this paper, AI literacy is defined as an advanced level of competence including the ability to understand AI, use it effectively for given tasks, evaluate and create AI, and exhibit ethical behavior in the use of AI. Based on the literature, the elements of a guiding framework for AI literacy are explained, encompassing four dimensions. It is argued that these four areas can be integrated into higher education courses from various fields. The adaptation of such a framework will further support the establishment of standards for the use of AI in higher education.

Keywords: Artificial intelligence (AI) in education; AI literacy; Higher education

(29) Micro-Credentials and Recognition of Prior Learning: Offering Flexible and Relevant Learning Opportunities for ODL Learners

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Open and Distance Learning (ODL) is an approach that offers accessibility and flexibility to learners in various contexts. Recently, there has been a focus on incorporating micro credentials and recognition of prior learning (RPL) to enhance the adaptability and practicality of learning experiences in ODL systems. This systematic review explores the relationship between micro credentials and RPL in ODL settings, emphasizing how they provide flexible and relevant learning opportunities for ODL learners. The study aims to investigate various aspects, including examining possible issues related to integration of micro credentials into ODL programs and alongside RPL, identifying the benefits and challenges for ODL learners, analyzing strategies for recognition and accreditation of micro credentials. A comprehensive investigation was conducted in scholarly databases, including Scopus and Google Scholar, from 2014 to 2024, analyzing peer-reviewed publications on micro credentials and RPL in ODL. This study specifically examines the incorporation of micro credentials and RPL in ODL programs, providing insights into effective integration strategies employed by universities. Overall, this systematic research explores the scope and potential of micro credentials and RPL in distance learning settings. In conclusion, micro-credentials and RPL are vital in online and distance learning. They enable learners to showcase acquired skills from various experiences. Implementing quality assurance, innovative teaching methods, and technology-enhanced environments enhances education, fostering lifelong learning and improving outcomes. By embracing these processes and technological advancements, we can create a more inclusive, adaptable, and efficient online and distance learning ecosystem.

Keywords: Micro-credentials, Recognition of Prior Learning, Flexible Learning, Skill development, Open and Distance Learning, Systematic Review

(31) Yapay Zeka ile Üretilen Soruların ve Madde Parametrelerinin MST Test Koşullarında Karşılaştırılması

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Akıllı teknolojilerin hızla yaygınlaşmasının eğitim dünyasındaki önemli yansımalarından biride ölçme ve değerlendirme alanında gerçekleşmektedir. Doğası gereği ölçmenin gerçeğe yakın doğrulukta sonuçlar verebilmesi için öncelikle güvenli bir ortamda gerçekleştirilmesi temel koşul olarak belirtilmektedir. Günümüzde yeni teknolojilerin gerek hayatın bir parçası haline gelmesi gerekse eğitim sisteminin birçok aşamasına entegre edilmiş olması sebebiyle ölçme ve değerlendirme işlemlerinin de aynı gelişmişlik düzeyinde gerçekleştirilmesi gerekmektedir. Akıllı teknolojilerin paradigma değişimi olarak nitelendirilecek düzeyde eğitim öğretim süreçlerine dahil edildiği bir sistemde ölçme işleminin geleneksel yöntemlerle yapılması sağlıklı sonuçlar elde edilmesinin önünde engel durumundadır. Mevcut sistemde yaygın biçimde uygulanan ölçme ve değerlendirme yöntemi ise geleneksel yöntemdir. Dolayısıyla ölçme ve değerlendirme işleminin hassas ölçümlere olanak tanıyan yöntem ve teknolojilerle yapılması önemli bir adımdır. Bu sebeple araştırmanın çıkış noktasını tam da bu durum oluşturmaktadır. Diğer bir ifadeyle araştırma yeni akıllı teknolojilerle desteklenen ve hassas ölçümlere olanak tanıyan modern test sunum yöntemlerinin bir araya getirilme sürecini kapsamaktadır. Bu süreçte ilk olarak çok aşamalı testler (Multistage Testing) ve ChatGPT teorik olarak ele alınacak olup bir sonraki aşamada araştırma sınırlılıklarında ChatGPT ile soru üretimi yapılarak üretilen soruların a, b ve c parametreleri ChatGPT'ye tahmin ettirilecektir. Araştırmanın bir diğer aşamasında ise aynı soruların multistage yöntem ile test montajı sağlanarak a, b ve c parametreleri hesaplanacaktır. ChatGPT ve MST ile elde edilen a, b ve c parametreleri sonuçları karşılaştırılacaktır. Bu araştırmanın amacı ölçme ve değerlendirme süreçlerinde akıllı teknolojilerin kullanımını somut bir biçimde ortaya koyabilmektir.

Anahtar Sözcükler: Ölçme, Yapay Zeka, Çok Aşmalı Testler, ChatGPT

(32) Optimization of University Academic Performance Through Asynchronous Wooclap. Case Study

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In the Degree in Fundamentals of Architecture at the Universitat Politècnica de València (UPV) in Spain, there has been a recurring issue of a high percentage of failures in the theoretical part of the Structural Calculation subject taught in the third year. This problem has persisted over the years despite different promotions of students. To address this issue, an active methodology will be applied to two of the six groups of students in the subject during the current 2023/2024 academic year. The goal is to improve student results. Subsequently, the results obtained in the evaluations of these experimental groups will be compared to those of the remaining students who have followed the traditional methodology. This article presents the results obtained after incorporating an interactive response tool into the chosen group's teaching and learning system. The study used the Wooclap platform in an asynchronous distance learning context, at the students' pace. This tool allows questions to be asked to the students, who can respond whenever and wherever they want. This promotes their autonomy and deepening of the topics. The possibilities of deferred feedback and flexibility in participation are also addressed, which can enrich the educational experience. The research results indicate that using this tool has a positive impact on students' academic performance. Therefore, it is recommended to implement it not only for other students in the same subject, but also for students in other subjects of the degree program.

Keywords: Wooclap, self-learning, test, skills, feedback

(33) Okul Öncesi Eğitimde Uzaktan Eğitime İlişkin Okul Öncesi Öğretmen Adaylarının Görüşlerinin İncelenmesi

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Uzaktan eğitim, pandemi, doğal afet, savaş gibi olağanüstü durumlarda veya eğitimde teknolojinin artan önemi nedeniyle genel politikaların değişmesi durumunda örgün eğitimin yerini alabilecek bir eğitim yöntemidir. Bu çalışmanın amacı, okul öncesi öğretmen adaylarının uzaktan eğitime ilişkin algılarını belirlemek ve uzaktan eğitime hazırlık düzeylerini incelemektir. Böylece, uzaktan eğitimin okul öncesi eğitimdeki yeri, önemi, avantajları ve dezavantajları hakkında öğretmen adaylarının görüşleri ortaya konulacak ve uzaktan eğitim için akıllı teknolojilerdeki kritik paradigma değişimlerini keşfetmek için çıkarımlarda bulunulacaktır. Yapılan alanyazın taramasında okul öncesi öğretmenliği öğretmen adayları ile yapılan bir çalışmaya rastlanılmamıştır. Bu çalışmanın bulguları, uzaktan eğitim sürecinde öğretmen adaylarının ihtiyaçlarını, beklentilerini, zorluklarını ve çözüm önerilerini belirlemek için bir temel oluşturabileceği düşünülmektedir. Çalışmamızda, nitel araştırma desenlerinden durum çalışması benimsenmiştir. Araştırmanın evrenini, Marmara Üniversitesi Okul Öncesi Öğretmenliği Bölümünde öğrenim gören 3. ve 4. sınıf öğrencileri oluşturmaktadır. Örneklem seçimi, gönüllülük esasına göre yapılmıştır. Bu kriterlere göre, 21 öğretmen adayı çalışmaya katılmıştır. Veri toplama aracı olarak görüşme kullanılmıştır. Görüşme formu araştırmacılar tarafından oluşturulmuş, okul öncesi eğitimi alanında uzman 3 öğretim üyesine görüşleri için iletilmiştir. Uzman görüşlerinin dönütleri doğrultusunda sorular yeniden düzenlenmiş ve son olarak 7 soru olarak belirlenmiştir. Soruların anlaşılırlık düzeyini kontrol etmek için bir öğretmen adayı ile pilot görüşme gerçekleştirilmiş ve anlamı daha net ortaya koyacak kelime düzenlemeleri ile son hali elde edilmiştir. Görüşmeler araştırmacılar tarafından transkript edildikten sonra açık kodlama ile kodlanmıştır. Çalışmanın sonucunda, okul öncesi öğretmen adaylarının uzaktan eğitime ilişkin algılarının farklılık gösterdiği, ancak genel olarak uzaktan eğitimin okul öncesi eğitimde yeterli olmadığı yönünde bir görüşe sahip oldukları ortaya çıkmıştır. Bu sonuç, uzaktan eğitimin okul öncesi eğitimdeki yeri, önemi, avantajları ve dezavantajları hakkında daha fazla araştırma yapılması gerektiğini göstermektedir. Ayrıca, uzaktan eğitim için akıllı teknolojilerdeki kritik paradigma değişimlerini keşfetmek için eğitim programlarının geliştirilmesi ve güçlendirilmesi gerektiği sonucuna ulaşılmıştır. Bu çalışmanın sınırlılıkları, örneklem grubunun bir üniversiteden seçilmesi, veri analiz yönteminin içerik analizi ile sınırlı kalması olarak sayılabilir.

Anahtar Sözcükler: Okul Öncesi Eğitim, Aday Öğretmen, Uzaktan Eğitim

(34) Developing Knowledge of Computational Thinking Concepts in Students with Learning Disabilities: A Case Study

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This instrumental case study aimed to examine the effectiveness of a specialized computational thinking curriculum for students with diverse learning needs. The curriculum was created using a metacognitive strategy called TIPP&SEE. This strategy has been successfully implemented for teaching computer science to elementary school students using Scratch, a free online block-based programming tool. During a six-week curriculum implementation, we closely examined the development of the knowledge of computational concepts, including events, sequences, parallelism, and loops, in two middle school students diagnosed with specific learning disabilities. We collected data through semi-structured interviews, tests of knowledge of computational concepts, session journals, and TIPP&SEE worksheets prepared for the study. The findings showed that participants developed their knowledge of computational thinking concepts at different rates. This difference in pace could be attributed to varying levels of engagement and disabilities among the participants. The analysis also revealed that participants struggled with answering checkbox table questions when there were more than two sprites and options. Qualitative data suggested that using the OpenDyslexic font helped participants read more fluently. We provided recommendations for designing computational thinking curricula for students with diverse needs, which is essential to promote equity in education.

Keywords: computational thinking, learning disabled, middle school, case study, equity in education

(35) Enhancing Science Education: A Fusion of Historical, Contemporary Case Studies, and Scientific Inquiry through a Three-Concept NOS Model

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This study introduces a novel instructional strategy aimed at enhancing students' comprehension of the Nature of Science (NOS) and bolstering their acquisition of content knowledge. By weaving historical and contemporary case studies into the fabric of a methodological framework known as the Three-Concept NOS Model, this approach highlights the significance of empirical observations, inferential explanations, and the subjective nature of scientific inquiry. The central research question investigates the effects of this model on students' content learning and their perceptions of NOS. Additionally, students will engage with current artificial intelligence (AI) applications, such as ChatGPT, to assist in creating, editing, and modifying historical narratives and reflection questions during the instructional activities. This model aims to address the shortcomings of previous methods by providing a deep understanding of the Nature of Science (NOS), highlighting its importance in scientific exploration and knowledge. Its implementation faces hurdles such as the necessity for teacher training and adjustments in the curriculum. Nonetheless, through the use of specific examples from both historical and modern science, alongside a focus on reflective practice, this strategy seeks to make NOS concepts both accessible and relevant to students. The Three-Concept NOS Model integrates NOS with scientific inquiry and content explicitly and cohesively, presenting a promising path to enhance science education. This model not only strives to enrich students' comprehension of the essence and functioning of science but also aims to foster a more sophisticated appreciation for the scientific process. By incorporating AI in content creation and other areas, students will further explore the benefits of utilizing AI in both teaching and learning.

Keywords: Nature of Science , Historical Case Studies, Contemporary Case Studies

(36) Çevrimiçi Ortamda İşbirliği Göstergelerinin Belirlenmesi: Programlama Örneği

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Çevrimiçi öğrenme sahip olduğu eş zamanlı ve eş zamansız ortamlar sayesinde, öğrenenlerin etkileşimini zaman ve mekân kısıtlaması olmadan genişletmektedir. Araştırmacılar, çevrimiçi öğrenme ortamlarında geribildirim, etkili işbirliği ve tartışma gibi imkânlar sunan öğretimsel stratejiler kullanılarak derse bağlılığın artırılabileceğini ifade etmektedirler. Bu öğretimsel stratejilerin geliştirilebilmesi için işbirliği göstergeleri belirleme noktasında dersin doğası kritik öneme sahiptir. Programlamanın doğası gereği soyut kavramlarla çalışılması gerektiğinden öğrenenler birtakım zorluklar yaşamaktadırlar. Yaşanan bu zorluklar araştırmacıları, programlama öğretim yöntem ve ortamlarında çeşitli alternatifler aramaya yönlendirmiştir. Bu kapsamda programlama mantığının anlaşılması için programlama etkinliklerine işbirliğini dahil etmenin önemi vurgulanmaktadır. Yapılan çalışmalar, etkili işbirliğinin basitçe doğal olarak ortaya çıkamayacağını, aslında modelleme ve geri bildirim yoluyla öğretilmesi ve desteklenmesi gerektiğini ortaya koymuştur. Bu çalışmada çevrimiçi ortamda programlama eğitimi için işbirliği göstergelerinin belirlenmesi amaçlanmaktadır. Bu amaç doğrultusunda çalışmada nitel araştırma yöntemlerinden sistematik literatür taraması yöntemi kullanılacaktır. Etkili işbirliği sağlayabilmek için çevrimiçi öğretim ortamlarından yararlanılabilir fakat programlamanın doğasından kaynaklanan zorluk ile çevrimiçi sunulmasının zorluklarını aşabilme amacıyla çevrimiçi programlama öğretimi sürecinin daha hassas biçimde planlanması gerekmektedir. Bu noktada, çevrimiçi ortam tasarımı için öğrenme analitiklerinden faydalanılabilir. Çevrimiçi ortamlardan elde edilen verilerdeki örüntülerin tespit edilerek analizi yoluyla çevrimiçi öğrenme süreçlerini kolaylaştırıcı bir unsur olarak öğrenme analitikleri kullanılmaktadır. Göstergeler, çevrimiçi ortamda bu örüntülerin görselleştirilmesini sağlayarak, öğrencilerin çevrimiçi öğrenme ortamındaki etkileşim verilerini izleyerek ve bu veriler üzerinde veri madenciliği analizleri yaparak tespit edilen problemlerin çözümü için anlaşılır sonuçlar sunmaktadır. Programlama öğretiminde bu işbirliğinin ne şekilde yapılması gerektiği, nasıl daha verimli hale getirileceği, bu amaçla öğrenme analitiklerinden nasıl yararlanılabileceğine yönelik literatürde yeterli çalışma bulunmamaktadır. Bu kapsamda programlama eğitiminde çevrimiçi işbirliği göstergelerinin belirleneceği çalışmanın çevrimiçi ders tasarımı konusunda alana önemli katkılar sağlayacağı öngörülmektedir. Bu çalışmada uzman görüşleri ve literatür çerçevesinde çevrimiçi programlamada işbirliği için, kod ekleme, kod silme, kod değiştirme, kod kopyalama, hata ayıklama, hatalı kod için yardım arama göstergeleri belirlenmiş ve bu göstergelerin analitik olarak elde edilmesi için yöntemler önerilmiştir. Ayrıca öğrenme analitiklerinin çevrimiçi işbirliğinin belirlenmesi noktasındaki kullanımı, bu alan çalışmaları için önemli bir farklılık olarak düşünülebilir.

Anahtar Sözcükler: Programlama Eğitimi, Çevrimiçi Öğrenme, İşbirlikli Öğrenme, Öğrenme Analitikleri, Öğrenme Analitiği Göstergeleri

(37) Economic Analysis of Inequality in Access to Educational Technologies on a Global Dimension

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The COVID-19 pandemic is the most significant health crisis that the world has faced in the past 100 years. The crisis also has affected the education systems. While schools closed, countries moved quickly to offer remote learning to continue children's education through various delivery modalities including online platforms, broadcast media (TV/radio) and paper-based take-home packages. In the process of implementation, various problems were identified. The most important of these was inequality in access to educational technologies. This paper will examine the digital divide in access to educational technologies on a global scale in the remote learning education process. Following the theoretical explanation, two separate comparisons are made regarding access to educational technologies. Comparisons are made by grouping countries according to their regions and development levels. The comparison is made with World Bank resources. The results of the comparison will be evaluated in terms of economics and recommendations will be made.

Anahtar Sözcükler: Digital divide, inequality, education technologies, economy

(38) Meslek Yüksekokulu Öğrencilerinin Görüşleri Doğrultusunda Öğretim Elemanlarının Çevrimiçi Eğitime Yönelik Mevcut Durumlarının İncelenmesi

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Olağanüstü durumlarda çevrimiçi eğitim, yüksek eğitim sisteminin işleyişinin devamlılığı için önemli bir yoldur. Çevrimiçi eğitim, uygulama açısından pek çok açıdan avantaj sağlamakla birlikte zaman zaman eksiklikler ve sorunlar da yaşanabilmektedir. Çevrimiçi eğitimin sunduğu fırsatlardan en üst düzeyde yararlanabilmek ve sorunlara etkin çözümler bulabilmek için uygulamaya yönelik mevcut durumun değerlendirmesinin yapılması önemli görülmektedir. Çevrimiçi eğitimin niteliğini etkileyen birçok faktör vardır ve bu faktörlerin en önemlilerinden biri de sürecin uygulamasında aktif rol üstlenen öğretim elemanlarının çevrimiçi eğitime yönelik bilgi, beceri ve tutumlarıdır. Çevrimiçi eğitimin etkililiğinin değerlendirilmesinde, öğretim elemanlarının çevrimiçi eğitime yönelik nitelik ve yeterliklerine ilişkin mevcut durumlarının incelenmesi de önemli bir boyuttur. Bu kapsamda, öğretim elemanlarının çevrimiçi eğitime yönelik nitelik ve yeterliklerinin incelenmesi, mevcut durumu ortaya çıkararak uygulamanın etkililiğini iyileştirmede önemli katkılar sağlayabilecektir. Bu düşünceden hareketle araştırmada, meslek yüksekokulu öğrencilerinin görüşleri doğrultusunda öğretim elemanlarının çevrimiçi eğitime yönelik mevcut durumlarının incelenmesi amaçlanmıştır. Araştırmada nitel araştırma yöntemlerinden durum çalışması deseni kullanılmıştır. Araştırmanın gerçekleştirildiği meslek yüksekokulunda gerçekleştirilen çevrimiçi dersleri yürüten öğretim elemanlarının uygulamalarının araştırmanın durumu olarak belirlenmiştir. Araştırmanın katılımcılarının belirlenmesinde, amaçlı örnekleme yöntemlerinden ölçüt örnekleme tekniği kullanılmıştır. Katılımcıların belirlenmesinde kullanılan ölçütler ise, "iki dönem çevrimiçi eğitim deneyimi yaşamış olmak, meslek yüksekokulu öğrencisi olmak ve araştırmaya gönüllü olarak katılmak" olarak belirlenmiştir. Araştırmanın katılımcılarını, Türkiye'nin güneyinde bulunan bir devlet üniversitesindeki meslek yüksekokuluna devam eden 12 öğrenci oluşturmuştur. Araştırmanın verileri, 2023-2024 eğitim-öğretim yılı bahar yarıyılında toplanmıştır. Araştırma verileri, yarı-yapılandırılmış görüşmelerle toplanmıştır. Verilerin toplanmasında araştırmacılar tarafından oluşturulan ve uzman görüşü alınan, 12 sorudan oluşan bir görüşme formu kullanılmıştır. Görüşmeler, yüz yüze olarak gerçekleştirilmiştir. Verilerin analizinde, tümevarımsal içerik analizi kullanılmıştır. Bu doğrultuda, görüşmelerin yazılı dökümlerinden kodlar çıkarılmış, ilişkili kodlar bütünleştirilerek alt tema ve temalar oluşturulmuştur. Verilerin analizinin inandırıcılığı doğrultusunda, uzman incelemesi tekniğine başvurulmuştur. Araştırmanın sonucunda, öğretim etkinlikleri, sanal sınıf yönetimi, sosyal bağlam, değerlendirme etkinlikleri, dijital yetkinlik, ders materyalleri ve duyuşsal bağlam olmak üzere yedi tema oluşturulmuştur.

Anahtar Sözcükler: Meslek yüksekokulu, çevrimiçi eğitim, öğrenci görüşleri, öğretim elemanı yeterlikleri

(39) SQLatch: Enhancing SQL Learning through Interactive Block-Based Programming

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Databases have been proven to be a tool of significant importance in the world of Computer Science, with their usage spreading from simple data storage in an application, to maintaining and supporting critical infrastructures and services. Learning this subject, however, is challenging due to the abstract nature of database concepts and Structured Query Language (SQL) logic, which significantly diverges from conventional programming paradigms, creating obstacles for learners. Traditional text-based learning approaches often fail to engage students effectively, leading to a steep learning curve and diminished interest. Research indicates that visual learning environments can significantly lower these barriers, making abstract concepts more tangible and interactive. In this context, a block-based tool, similar to Scratch, emerges as a promising solution for SQL learning. This paper introduces SQLatch, a web-based application combining a block-based interface where students can build their own SQL queries and interactive SQL learning activities and content. Drawing on the familiarity of students with visual coding platforms like Scratch, SQLatch offers a similar user experience tailored for introductory SQL learning, offering a novel approach to bridging the educational gap in database instruction. This study provides a theoretical background on the domain, presents related work in the field, and elaborates on the architecture and functionalities of the proposed tool. Further, it explores the application of SQLatch in educational contexts and presents preliminary findings from piloting the tool among students, concluding with reflections on its effectiveness and potential improvements.

Keywords: programming learning, SQL, databases, block-based programming, educational technology

(40) Harmanlanmış Öğrenme Bağlamında Sanal ve Artırılmış Gerçekliğin Avantaj ve Dezavantajları

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Son yıllarda eğitim dünyası, teknolojideki hızlı gelişmeler ve öğrencilerin sürekli gelişen ihtiyaçları nedeniyle önemli bir dönüşüm geçirmiştir. Eğitimcilerin ve araştırmacıların hayal gücünü yakalayan bu tür gelişmelerden biri, öğretme ve öğrenmeye yeni bir yaklaşım sunan harmanlanmış öğrenme ve artırılmış gerçekliğin entegrasyonudur. Bu sistematik derlemenin temel amacı, harmanlanmış öğrenme bağlamında sanal ve artırılmış gerçeklik teknolojilerinin faydalarını ve dezavantajlarını incelemektir. Bu amaca ulaşmak için Web of Science, ScienceDirect, ERIC, EBSCO, Ulakbim-Dergipark ve SCOPUS gibi çeşitli veri tabanları ve arama motorları kullanılarak sistematik bir literatür taraması yapılmıştır. Araştırma kriterlerini karşılayan makaleler arasından toplam 19 çalışma seçilerek incelemenin örneklemini oluşturmuştur. Elde edilen bulgular, sanal ve artırılmış gerçeklik teknolojilerinin harmanlanmış bir öğrenme ortamında eğitim etkinliğini artırmak için önemli bir potansiyele sahip olduğunu göstermektedir. Ayrıca, kimya eğitimi, İngilizce öğretimi ve kültürel miras gibi çeşitli konu alanlarında sanal ve artırılmış gerçekliğin etkinliği de göze çarpmaktadır. Bu çalışmanın sonuçları, öğretim ve öğrenimde sanal gerçeklik kullanımının öğrencilerin öğrenme motivasyonunu ve akran öğrenme etkileşimini artırabileceğini, dijital okuryazarlık becerilerini geliştirebileceğini, etkileşimli ve ilgi çekici bir öğrenme deneyimi sağlayabileceğini, esneklik ve kullanım kolaylığı sunabileceğini, aktif katılımı ve işbirliğini teşvik edebileceğini, zihinsel kavram ağlarını güçlendirebileceğini, öğrenci merkezli bir öğrenme ortamı sağlayabileceğini, öğretmenlerin öğretimini geliştirebileceğini, yabancı dilde okuma becerilerini geliştirebileceğini, değerlendirme ve problem çözme becerilerinde çevrimiçi ve çevrimdışı deneyim sunabileceğini göstermektedir. Bu bulgular, sanal ve artırılmış gerçeklik teknolojilerinin eğitim uygulamalarına entegrasyonunun öğrencilerin katılımını, motivasyonunu ve dijital içeriği anlamasını artırabileceğini ve nihayetinde onları 21. yüzyılın dijital zorluklarına hazırlayabileceğini göstermektedir.

Anahtar Sözcükler: Artırılmış gerçeklik, sanal gerçeklik, harmanlanmış öğrenme, hibrit öğrenme

(41) Wikipedia in University Program: meta-analysing the typology of courses in the Lusophone page

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Due to the potential to foster the so-called digital capital, when pedagogically integrated in the curriculum, the Wikimedia Ecosystem allows to promote a broad set of skills, which we assume, in the scope of the WEIWER® International Academic Network, under the umbrella concept of Wikiliteracy. The Wikipedia in University Program is a part of that ecosystem to which we have been dedicating research, namely the projects that have been developed within that program. Hence, we considered to be important to meta-analyse the Portuguese page of the Wikipedia Program at the University specifically between the years 2011 to 2018. The study thus designed was inspired by the following central question: What do the courses of the Wikipedia University Program that are registered on the Wikipedia Lusophone platform tell us? In this text, we take a part of that research, aiming particularly to answer to the specific question: What formats/typologies are used to provide courses in those contexts? Methodologically, in the exploratory study, of a descriptive, meta-analytical and mixed nature, the MAECC®, Meta-model for Analysis and Exploration of Scientific Knowledge®, was adopted. Considering only the data from the Methodologies (macro) and Format/Typology (meso) categories, we can conclude that, of the 92 meta-analysed courses/projects, only 61 had the active link at the date of the data collection. Of these, only 58 included information applicable to our research purpose. Therefore, 4 formats/typologies were identified: "Edit-a-Thon (5); "Dashboard" (1); Project page (19); Project page segmented into pages – "Main", "Discussion", "Resources", "Help" (33). The typology of courses that emerges from the meta-analysis that we undertook in the online encyclopedia's Lusophone page allows us to further illustrate, in a direct reference to the Wikimedia Foundation motto, that "Wikipedia belongs to education".

Keywords: Wikipedia at University Program, Lusophone Community, Open Higher Education, Knowledge Mapping and Systematization, MAECC®

(42) Artificial Intelligence (AI) in Open and Distance Learning (ODL): Synthesis of Assistive AI Tools Used to Support Learning Experience

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The application of Artificial Intelligence (AI) in higher education, especially in Open and Distance Learning (ODL) is viewed to continue to disrupt the way teaching-learning processes are delivered. Over the past years, the application of AI tools to support learners or enhance learning has grown dramatically specially during and after the COVID-19 pandemic period. The need for customized learning is on the rise, student outcomes have improved, and educational institutions all over the world are using AI-based educational solutions, which are the main drivers of the expansion in the provision of student support services. AI technology has the ability to change how students learn as it develops and becomes more sophisticated. This paper is being written to assess the application of Artificial Intelligence in ODL to support the learning experience of selected Filipino ODL students. The objective is to explore the use of assistive AI Tools in ODL as used by students to support their learning experience. Using descriptive qualitative research approach, the researcher made use of open-ended questionnaire and considered a total of thirty Five (35) participants. Findings revealed that that the participants have already identified the of the following assistive AI tools, specifically the use of Canva, Quillbot, ChatGPT, Duolingo, Adobe Firefly & Grammarly, and Babel, SlidesGPT and Google Bard as beneficial in supporting their learning experience. Supporting their learning experience, the themes that emerged as part of their responses are: 1. AI tools are accessible and convenient, 2. AI assistive technologies provides immediate assistance and support to most of the participants and 3. there is automation and efficiency when using AI tools and, 4. Using AI is more cost effective than personally consulting a teacher physically. Given the novelty of AI application in the teaching-learning processes, the study is expected to add to existing literature that can possibly help shape the future of AI assisted learner support services in an ODL environment. To improve the learner support services that other universities can learn from in the context of ODL institutions, it is recommended that the ethical implications of these AI tools in education shall be explored in future research even when the participants seem to benefit from the aid, assistance and advantages of using AI tools to support their learning.

Keywords: Artifical Intelligence, Assistive AI Tools, ODL, Student Support, Philippines

(43) 0-6 Yaş Çocukların Teknoloji Kullanım Alışkanlıklarının İncelenmesi

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Bu çalışmanın amacı 0-6 yaş dönemindeki çocukların teknoloji kullanım alışkanlıklarını incelemektir. Bu bağlamda çocukların dijital cihaz tercihi ve kullanım sıklığı, sosyal medya kullanım tercihi ve mobil oyun oynama süresini ortaya çıkarmak; çocukların dijital cihaz kullanımının sosyal, psikolojik ve fiziksel etkilerini anlamak amaçlanmıştır. Ayrıca dijital cihaz kullanımının çocukların sorumluluklarını nasıl etkilediği ve süre sınırlamasına uyma durumları da irdelenmiştir. Nicel betimsel yaklaşımla gerçekleştirilen bu çalışmada araştırmacılar tarafından geliştirilen anket kullanılarak 0-6 yaş aralığında çocuğu olan 120 ebeveynden veri toplanmıştır. Elde edilen veriler betimsel olarak analiz edilmiş ve frekans/yüzde analizleri yapılarak tablolarla sunulmuştur. Elde edilen bulgulara göre 0-6 yaş çocuklar, dijital cihaz olarak en çok akıllı telefon ve televizyonu kullanmaktadır. Çocukların yaklaşık %60'ı her gün dijital cihaz kullanmaktadır. Çocukların yaklaşık yarısı günde yarım saatten fazla dijital cihazları kullanmakta, mobil oyun oynamakta ve yaklaşık %60'ı televizyon izlemektedir. Çocukların %40'tan fazlası günde yarım saatten fazla akıllı telefon kullanmaktadır. Çocukların %87'si YouTube ve %11'i TikTok kullanmaktadır. Çocukların yaklaşık %50'si hiç fiziksel aktivite yapmamakta veya nadiren yapmaktadır. Önemli bir kısmı akranlarıyla iletişime geçmede sorun yaşadığı, problemleri nadiren çözebildiği, dikkat dağınıklığı ve uyku problemi yaşadığı, cihaz kullanımına bağlı olarak sinirlenebildiği görülmüştür. Çocukların yaklaşık %70'i ebeveynlerin koyduğu süre sınırını genellikle aşmaktadır.

Anahtar Sözcükler: Çocuklar, ebeveynler, okul öncesi, teknoloji

(44) İngilizce Öğretiminde Teknoloji Destekli Biçimlendirici Değerlendirme: Araştırmaların Yöntemsel Eğilimi ve Sonuçları

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Özet Bu çalışmanın amacı İngilizce öğretiminde teknoloji destekli biçimlendirici değerlendirmeye odaklanan araştırmaların incelenmesidir. Bu bağlamda Web of Science, Scopus ve ERIC veri tabanları taranmış ve 119 araştırma makalesi bu çalışma kapsamında incelenmiştir. İlgili araştırmalar, yöntemsel eğilim (araştırma deseni, örneklem grubu, örneklem sayısı, örnekleme yöntemi, veri toplama araçları, veri analiz teknikleri), araştırılan dijital araçlar/ortamlar, incelenen değişkenler ve elde edilen sonuçlar betimsel yaklaşımla incelenmiştir. Elde edilen sonuçlara göre İngilizce öğretiminde teknoloji destekli biçimlendirici değerlendirmeye odaklanan araştırmaların son yıllarda artış gösterdiği görülmüştür. En sık tercih edilen araştırma deseninin nitel araştırmalarda durum çalışması, nicel araştırmalarda ise deneysel desen olduğu görülmüştür. Araştırmalarda en sık tercih edilen örneklem grubu üniversite öğrencileri, örneklem sayısı 31-100 katılımcı, örnekleme yöntemi amaca uygun örnekleme olmuştur. Veri toplama araçları olarak en çok anket, görüşme ve doküman tercih edilmiştir. Veri analiz tekniği olarak frekans, yüzde, ortalama, standart sapma, t-testi, içerik analizi, Anova ve korelasyon en sık tercih edilen analizler olmuştur. İlgili araştırmalarda üniversite öğrencilerinin akademik başarısı, yazma becerileri, motivasyon, performans ve dijital araçlara ilişkin tutum/algıları; öğretmenlerin ve akademisyenlerin araçlara ilişkin deneyimleri ve biçimlendirici değerlendirme stratejileri, yöntem ve teknikleri en sık odaklanılan değişkenler olmuştur. İlgili araştırmalardan elde edilen sonuçlar, İngilizce öğretiminde teknolojinin biçimlendirici değerlendirme amaçlı kullanılmasının önemli katkılar sağladığını göstermektedir.

Anahtar Sözcükler: Anahtar kelimeler: Biçimlendirici değerlendirme, teknoloji destekli biçimlendirici değerlendirme, İngilizce öğretimi,

(45) Öğretmenlerin Türkçe Dersinde Elektronik Kitap Kullanımına İlişkin Algısı

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Bu çalışmanın amacı Türkçe dersinde sınıf öğretmenleri ile Türkçe öğretmenlerinin elektronik ders kitaplarının kullanımına ilişkin algılarını tespit etmektir. Ayrıca öğretmenlerinin algısının çeşitli değişkenler açısından nasıl farklılaştığını ortaya koymaktır. Nicel araştırma yöntemlerinden tarama modeli ile yürütülen bu çalışmanın örneklemini Mardin ili Kızıltepe ilçesinde görev yapan 77 öğretmen oluşturmaktadır. Farklılaşmaya ilişkin analizlerde t-testi ve ANOVA kullanılmıştır. Elde edilen sonuçlara göre öğretmenlerin önemli bir kısmının Türkçe derslerinde okuma amaçlı elektronik kitapları tercih ettikleri görülmüştür. Öğretmenlerin bu tercihlerinin cinsiyete göre ve öğretmenlik deneyimine göre farklılaşmadığı görülmüştür. Ayrıca hem eğitim fakültesi hem de diğer fakülte mezunu öğretmenlerin elektronik kitap tercihlerinin benzer olduğu tespit edilmiştir. Kırsal veya merkezi okulda görev yapan öğretmenlerin elektronik kitap tercihleri de farklılaşmamaktadır. Ayrıca sınıflardaki öğrenci sayısının farklılaşması da öğretmenlerin bu tercihlerini değiştirmediği görülmüştür. Sonuç olarak öğretmenlerin yaklaşık %70'i derste okuma amaçlı elektronik kitapları tercih etmekte ve yaklaşık %90'ı günlük hayatta elektronik kitapları tercih etmektedir. Elektronik kitap tercihinin cinsiyet, mezun olunan fakülte, öğretmenlik deneyimi, okulun merkezi veya kırsal olması ve sınıflardaki öğrenci sayısına göre farklılaşmadığı sonucuna varılmıştır. T

Anahtar Sözcükler: Türkçe dersi, elektronik kitap, e-kitap, öğretmen algısı, ,

(46) Promoting Student Participation in University Teaching of Strength of Materials

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In this study, a proposal is presented to encourage the active participation of university students at the Universitat Politècnica de València, specifically in the teaching of Strength of Materials. Traditionally this subject has been taught following the modality of master classes, given the high number of students enrolled in each group. Due to the high percentage of success that has been demonstrated with the incorporation of active learning methodologies, the viability of the implementation of peer learning strategies is analyzed, specifically from the cooperative learning approach applying the Aronson puzzle technique. For this purpose, the didactic unit of dimensioning against normal stress is designed following this philosophy. These sessions could be taught both in person and online with the help of Teams and the creation of different rooms on this platform for work groups. Next, the sessions prepared are presented to the students and the work methodology is explained to them. Finally, an anonymous questionnaire is carried out to the students so that they give their opinion on the advantages and disadvantages of the technique, thus evaluating their degree of satisfaction in order to encourage their participation in class, each assuming the role of expert. The results of the survey obtained show how the students would increase their motivation and involvement in the subject with the aim of achieving deep learning in it. In conclusion, this methodology manages to promote not only participation and interest in the subject but also the relationship between the teacher and the student and that of the student with the rest of their classmates, thus developing social integration skills that can influence improving academic performance.

Keywords: Cooperative learning, Aronson puzzle, peer learning, teaching innovation, Strength of Materials

(47) Fizik Öğretiminde Aktif Öğrenme Yaklaşımının Akademik Başarıya Etkisi: Bir Meta-Analiz Çalışması

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Bu çalışmanın amacı aktif öğrenme yaklaşımının kullanıldığı çalışmaların fizik başarısına etkisini meta analiz yöntemi ile incelemektir. Araştırmanın amacı doğrultusunda 6 alt probleme cevap aranmıştır. Araştırmaya dahil edilecek çalışmalar, 2004-2023(Nisan) yılları arasında ulusal ve uluslararası veri tabanlarında ''aktif öğrenme'' ile ilgili bilimsel dergilerde yayınlanmış makaleler ile Türkiye'de yapılmış olan yüksek lisans ve doktora tezlerinden oluşmaktadır. Literatür taramasında ERIC, DergiPark, Science Direct, YÖK Ulusal Tez Merkezi, Google Akademik ve ULAKBİM veri tabanları kullanılmıştır. 12 tane yüksek lisans tezi, 2 doktora tezi ve 26 makale olmak üzere toplam 40 araştırmanın verileri bu çalışmaya dahil edilmiştir. Comprehensive Meta-Analysis (CMA) programının kullanıldığı bu çalışmada meta analiz yapılmadan önce çalışmaların yayın yanlılığı olup olmadığı kontrol edilmiştir. Elde edilen bulgular doğrultusunda en yüksek genel etki büyüklüğü Türkiye'de yapılan yüksek lisans ve doktora tezlerinde görülmüştür. 1.094 olarak bulunan bu etki büyüklüğü geniş düzeyde etki olarak tanımlanmaktadır. Bütün çalışmaların dahil edildiği ve fizik eğitiminde aktif öğrenme yaklaşımının öğrencilerin akademik başarıları üzerindeki etkisinin araştırıldığı son araştırma probleminde genel etki 0.478 olarak hesaplanmıştır. Elde edilen bu etki büyüklüğü orta düzey etki olarak tanımlanmaktadır. Araştırma sonucunda fizik eğitiminde aktif öğrenme yaklaşımının öğrencilerin akademik başarılarını pozitif yönde değiştirdiği tespit edilmiştir. Yapılan bu çalışmada fizik eğitimi ile ilgili meta analiz çalışmalarının oldukça az olduğu görülmüştür. Bu sebeple daha sonra bu alanda çalışacak olan araştırmacıların 5E modeli, bilgisayar destekli öğretim gibi ya da tutum, motivasyon gibi çeşitli değişkenlerin fizik başarısına genel etkisi üzerine çalışabilecekleri düşünülmektedir.

Anahtar Sözcükler: Aktif öğrenme, fizik eğitimi, meta analiz, fizik başarısı

(48) The Fundamental Approaches and Applications of Regression Analyses in Educational Research

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The significance of this study lies in its potential to provide researchers with an overview of the fundamental approaches and current issues in regression analysis through a literature review, thereby presenting the stages of regression analysis found in this literature. The general aim of the research is to identify the basic concepts in the literature related to regression analysis and to provide researchers with a comprehensive guide on this subject. It was a prerequisite that the articles selected through systematic literature review had been indexed in journals. In the methodology of the research, articles in the literature related to regression analysis were searched, and the fundamental approaches, methods, and findings of regression analysis were thoroughly examined. The findings present the fundamental approaches and current issues in regression analysis, thus bringing together the existing knowledge in the literature for researchers. Limitations include the focus of this study on a limited time frame and its reliance solely on specific datasets. Recommendations for future research include emphasizing the importance of more comprehensive studies on regression analysis and using up-to-date datasets.

Keywords: analysis, educational research, regression, reliability

(49) Pre-service Special Education Teachers' Views on E-coaching

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Supporting the professional development of teachers working with children with special needs is an important issue in the field of teacher education. Especially with the COVID-19 pandemic, emergency remote teaching was introduced and teachers experienced various difficulties in the education they offered remotely. E-coaching is suggested as a solution to prevent students with special needs from being deprived of education and to support the professional development of teachers in natural disasters such as earthquakes, floods, fires and pandemics that have affected and are expected to affect our country in recent years. Therefore, determining the views of pre-service special education teachers about the e-coaching and the web page where the e-coaching is presented will make important contributions to the improvement and development of the existing system. From this point of view, this study aims to determine the opinions, suggestions and experiences of pre-service special education teachers about the e-coaching and the website where the e-coaching is presented. A qualitative case study was conducted and data were collected through semi-structured interviews and researcher's diary. Ten pre-service special education teachers voluntarily participated in the study. The pre-service teachers were given a username and password to log in to the website and were asked to log in and utilize the system. When the pre-service teachers were ready, the interviews were conducted individually with each participant. Based on the literature review and the opinions of experts, 8 open-ended questions were asked to the pre-service teachers. The data were analyzed descriptively. The pre-service teachers stated that they did not have problems with access to the e-coaching, evaluated it positively in terms of technical aspects, found the content of it sufficient, and were willing to participate in the e-coaching to support their professional development. In line with the findings obtained, it is recommended to design and implement e-coaching according to user experiences and suggestions to support the professional development of the future special education teachers.

Anahtar Sözcükler: e-coaching, professional development, pre-service special education teachers

(50) MS Teams for Virtual Collaboration - An Overview

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A lot of organizations have placed a high value on their workers sharing at work. However, there are flaws in team collaboration that should be addressed to improve teamwork. This paper investigates the potential of Microsoft Teams as a comprehensive virtual collaboration platform in the contemporary digital landscape. Through an examination of its features, benefits, implementation strategies, and real-world applications, the research explores how Microsoft Teams empowers organizations to navigate the evolving landscape of hybrid and remote work. By analysing case studies and best practices, the paper offers valuable insights into maximizing the platform's potential for fostering effective communication, collaboration, and improved productivity within diverse organizational settings. The research methods used in this study are literature review of the current studies and review of the MS teams as an information system. Presenting the features of this tool in terms of virtual collaboration is also area of study for this paper. Microsoft Teams is a chat-based collaboration platform complete with document sharing, online meetings, and many useful features for professional communications. Having a team space is key to being able to make inventive decisions and communicate with one another. Shared workspace software makes this much easier to accomplish, especially if a particular team is based in a very large company, has many remote employees, or is made up of a significant amount of team members. Teams continue to grow, so the efforts of making Teams a go-to platform for hybrid work and beyond is discussed in the conclusion of this study.

(51) Evaluation of grading in Online and Distance Learning: Policies and Practices

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The purpose of this research is to examine the ongoing discourse on effective grading scheme and grading practices in online and distance learning. In this research mixed method was used to evaluate the grading policies and practices. All the teachers of education department and head teachers from virtual university of Pakistan were selected through census sampling. A questionnaire was based on open and close ended questions related to the fairness, accuracy, and learning outcomes of the grading scheme developed by the researchers and validated by four experts before administration. Pilot testing was conducted on the 50 teachers in virtual university, not where the actual study was conducted. The reliability of the instrument was 0.89. Document of policy was reviewed and thematic analysis was done. The data was analyzed using descriptive statistics. The findings revealed that the majority of virtual university teachers were satisfied with the grading schemes, perceiving them as fair, accurate, and measuring the learning outcomes. Furthermore, the grading scheme is aligned with the grading practices. But there is contradiction of Grading on Curve between policy and practice in grading. The results inform virtual universities, educators, and administrators about the strengths and limitations of current grading practices and guide them in optimizing the assessment process to better support for students' learning and success and provide recommendations for fostering a fair, transparent, and engaging assessment system in online and distance learning.

Keywords: grading, policy, practice, online distance learning, students, evaluation

(52) Artificial Intelligence: Re-thinking the role of education in society

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In order to support the use of technology in education to improve teaching and learning, support innovation, and enhance educational interventions, Artificial Intelligence (AI) appears as a crucial need to transform education, boost the teachers' performance, and prepare learners for life. Education is overwhelmed by the potential that this device can lead us to re-think the role of education in society and produce practical solutions. This paper examines the role of AI in teaching and learning English. It is based on a survey conducted in 2023 to anticipate the impact of AI on language learning among non-English department students at the Faculty of Legal Economic and Social Sciences, Cadi Ayyad University, Marrakech, Morocco. We analyzed the responses of 523 students. The questions revolve around their general understanding and acquaintance with AI as a language-learning device. Their responses show that 79% of them have already used technology to learn English. The study also reveals that 89% of them prefer a human assistance while using AI to avoid the risk of losing academic or personal information. The paper discusses also the use of the Rosetta Stone platform for learning languages and highlights the degree of importance of AI in language learning by stating to what extent the human wisdom assistance is required to achieve adequate performance. It closes with an open invitation to create new discussions about the possibilities and challenges of AI in education for a sustainable development.

Keywords: Artificial Intelligence, non-English department, linguistic needs, digital age.

(53) Internet Skills: A Scale Adaptation Study

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The Internet is increasingly becoming a key element of digital participation, and this trend is increasing day by day. In order to make effective use of the Internet, individuals are expected to have a set of skills called "Internet Skills", which include basic Internet use. The aim of this study is to adapt the Internet Skills Scale developed by Van Deursen et al. in 2016 to Turkish culture and to test the psychometric properties of the scale. This adaptation study was carried out because the Internet Skills Scale has a theoretically strong structure, wide content validity, and the ability to measure many sub-skills along with basic skills. It is thought that this study will meet the need in the national literature and will provide a basis for many future studies. The scale considered in this study has 35 items and a 5-factor structure. In order to examine the factor structure of the scale in the Turkish sample, exploratory factor analysis was conducted with 307 Internet users. As a result of the analysis, it was seen that the structure consisting of 5 factors in the original scale was gathered under 4 factors. It was determined that all factors explained 68.4% of the variance. A confirmatory factor analysis was conducted with 300 participants to test the suitability of the resulting 4-factor structure for Turkish culture. As a result of the analysis, it was observed that the 4-factor structure was preserved. It was determined that the fit indices obtained as a result of confirmatory factor analysis were in the good and excellent fit range. In order to determine the construct validity, the results of the convergent validity and discriminant validity analyses were found to be within the appropriate ranges. As a result of the findings, the form consisting of 20 items was proven to be suitable for Turkish culture and the validity and reliability of the Turkish form of the scale was ensured. It was suggested that new items such as artificial intelligence, internet of things and learning analytics could be added to the adapted scale form and that this study could be expanded with different participant groups.

Anahtar Sözcükler: Keywords: Internet skills, Scale adaptation, Turkish culture

(55) Developing Student's Creative Thinking Skills Through Teaching Materials: A systemayic Literature Review

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Creative thinking skills are one of the 21st-century skills that are essential aspects in the process of shaping student intelligence. This research uses the Systematic Literature Review method by conducting a literature study on the relationship between using teaching materials and students' creative thinking skills. The data collection technique was carried out by collecting and reviewing articles on the topic studied and related to the research keywords. 555 articles were collected from national and international journals from online databases such as Scopus, ERIC, and Google Scholar. Furthermore, the articles were selected according to several predetermined research criteria until 26 articles were obtained, which would be used as secondary data and then analyzed. The results of this study indicate that using teaching materials can build students' creative thinking skills. Furthermore, the results of this study can be used as interesting further research by examining the process of developing teaching materials to build students' creative thinking skills.

Keywords: Creative Thinking Skills, Teaching Materials, Systematic Literature Review

(56) The Challenges Faced by Teachers in Professional Development in the Context of Open Distance Learning(ODL): With Special Reference to The Open University of Sri Lanka

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The Open University of Sri Lanka (OUSL) is one of the country's pioneering and leading state universities in Sri Lanka, practicing Open and Distance Learning (ODL) method. The Open University of Sri Lanka is unique in Sri Lanka because of the adaptation of ODL techniques in offering the programmes in various faculties and departments. The department of Secondary and Tertiary Education of the faculty of Education of the Open University of Sri Lanka is offering different levels of programmes for teachers in line with their professional development. It is a fact that almost all teacher professional development programmes are conducted entirely in an open distance learning mode. When teachers involve in professional development studies in ODL, they face number of challenges in various situations in the studies. However, it is clearly depicted that the readiness of teachers to follow programmes in ODL mode is low. The participants in this study were teachers in Post Graduate Diploma in Education Programme(PGDE). The sampling method was random sampling method. Using questionnaires, the data were gathered from 100 teachers of the Post Graduate Diploma in Education Programme. A question that was asked among selected sample teachers to know about their readiness to follow the programmes in an ODL mode at the department. Among participants, 80% replied No to the question. One of the main reasons for the challenge of teachers is online access to the programmes in ODL mode. The challenges were clearly indicated by them in continuing study programmes in ODL mode with online access amid Covid - 19 pandemic. Especially, the challenges were identified under two variables, such as life factors and individual attributes. The life factors related challenges are about their own life issues, rather individual attributes related challenges clearly indicate their personal issues in line with following programmes in open distance learning mode. In this study, it was found that teachers face many challenges to follow programmes in ODL mode in connection of internet access. Particularly, in Sri Lanka amid COVID-19 pandemic and economic crisis, teachers faced many challenges in continuing the professional development studies and still they have the same problems in ODL mode.

Keywords: Open distance learning; Professional development; Online education, Individual attributes, Life factors,

(57) A Lack of Psychological and Disability Perspectives in the Framework for the Rational Analysis of Mobile Education: A Literature Review Analysis

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This chapter reports on a literature-based study. The purpose of the study was to investigate how psychological and disability perspectives, in a South African context, can be accommodated in the Framework for the Rational Analysis of Mobile Education (FRAME) model to promote inclusive approaches in mobile learning. The FRAME model aims to guide how learning materials are designed to facilitate mobile learning effectively. This is important because mobile learning can enhance interaction in teaching and learning. The literature suggests that since psychological and disability perspectives are not adequately addressed in the FRAME model, two components should be added to the model so that inclusivity, particularly in relation to students with different abilities, can be accommodated. Further research regarding disabilities and the use of mobile learning will help educators and higher education institutions to expand their capacity towards adopting these technologies.

Keywords: disability; mobile learning; inclusive learning

(59) Examining of Adult Learners' Training Participation According to the Demographic Characteristics

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Digital learning environments (DLEs) have become a popular method of delivering continuing training to individuals looking to improve their skills and knowledge in recent years. DLE has become an accessible and flexible option for those seeking to further their training with rapid advancement of technology. DLEs are used in higher education institutions, adult education, and civil servants training and development activities. Adults prefer online courses due to flexibility, financial contribution, and convenience of the online DLEs. Governments use DLEs to decrease the learning gap of the civil servants. The Distance Learning Gate (DLG) platform has been established by Presidency of the Republic of Türkiye Human Resources Office so that Türkiye's public servants could benefit from the advantages of DLEs and improve their skills and knowledge. Both ensuring that civil servants receive more contributions from DLG platforms and identifying the tendencies of civil servants are important for both developing training programs and identifying the needs of civil servants. In this research, the level of participation of adults in the trainings offered on the DLG platform was analysed based on their characteristics. Current research was conducted as a survey research. The participants consist of 64547 public servants (55196 Male – 86% and 9351 Female – 14%). In this context, it is hypothesized that adults' number of enrolled training levels in digital learning environments differs based on gender (Hypothesis 1), work experience (Hypothesis 2), and their method of being informed about the training (Hypothesis 3). According to the results, adults' number of enrolled trainings was differ according to their gender, work experience, and informed method. When we deep dive the results it's seen that females have enrolled more trainings than males. Adults with fewer years of work experience participated in more training. Another finding was that adults who self-discovered trainings also participated in more trainings.

Keywords: Distance learning environments, adult learners, trainings, demographic characteristics, Distance Learning Gate

(60) Health Related Quality of Life for employees with disabilities: A Disability centric approach in an Open Distance Learning institution

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The purpose of this study is to present findings on the experiences of staff with disabilities at an Open Distance Learning (ODL) institution in South Africa. The focus is on understanding how the support or the lack thereof from line managers could affect the quality of health of a staff with disability hence affecting their work performance. The theory of change was employed to frame the research regarding this topical phenomenon. The study comprised of 13 staff members from different colleges, departments, and functions whose interview narratives met the inclusion criteria for analysis using ATLAS.ti software. Data were collected using semi structured online interviews, as this was conducted during the Coronavirus disease 2019 (COVID-19) pandemic. It transpired that staff with disabilities who experienced positive support from line managers performed efficiently as opposed to those who did not. Limited support from line managers impacted negatively on the quality of life viz, perception of their position in life in the context of the culture and value systems in which they live, goals, expectations, standards, and concerns, and their work performance. Different extracts from the data are used to illustrate the views of participants. It can be concluded that a disability-centric approach, collaborative care among all stakeholders, involvement of policy makers is key for improving disability outcomes, health related quality of life in the institution. The results suggest and highlight specific challenges and potential solutions for the management of disabilities. The paper concludes by giving recommendation on the operationalization and implementation of disability-friendly policies that are contextualized, adequate to lead to efficient, productive, and healthy staff with disabilities.

Keywords: COVID-19, Disability, Health, Logic Model, Management, Open Distance Education Institution, Quality of life, Theory of Change

(62) Ensuring Intensive Computerization of Higher Education Students in the Context of Blended Learning Technologies Development

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This article delves into the use of intensive information technologies within higher pedagogical education. It explores the latest trends in modern technologies and their impact on the training of future teachers, particularly in the context of blended learning. The author highlights strategies for intensive informatization that aim to enhance the quality of the educational process and develop students' key competencies. The article delves into the practical methods and tools of digital support that optimize blended learning. It examines the implementation of virtual tools, electronic resources, and innovative pedagogical methods in the context of intensive informatization. Moreover, the article analyzes potential challenges that may arise during the informatization of higher pedagogical education and provides solutions to overcome them. The conclusions of the article help to systematize the accomplishments in the field of intensive informatization and outline the prospects for further technological development in higher pedagogical education.

Keywords: digital education, interactive platforms, traditional learning and modem technologies, intensive computerization, higher education, blended learning technologies.

(63) From Open Education to Wikiliteracy: reframing key concepts in the light of the digital capital

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It is undeniable the role that the digital dimension plays today in society. Thus, in this text, it is our purpose to revisit key concepts that set that digital dimension, namely in education. To this end, we call upon the theoretical foundations of the work we have been developing within the WEIWER® International Academic Network, dedicated to study e.g. the Wikimedia ecosystem. Moreover, we call upon our design, implementation, and evaluation of the curricular and pedagogical integration of Wikipedia, which has driven us towards new understandings of our different frameworks, including those on the digital dimension. We specifically focus on Open Education, Open Pedagogy, Open Teaching and Open Learning, bringing to light an updated comprehension of the Wikipedagogy. Then, we also focus on the digital capital, in contrast to the digital divide, bringing to light an updated comprehension of the Wikiliteracy. In the end, by reframing those key concepts in the light of the digital capital, particularly inspired by our work, it has led us to contribute to open educational practices. In a word, our path from open education to wikiliteracy has shown us possible ways to contribute to the learners' developing of a broad set of literacies, including digital literacy, which ultimately promotes meaningful learning impacting on learners.

Keywords: Open Pedagogy, Open Teaching , Open Learning, WEIWER®, Wikipedagogia

(65) Öğrencilerin E-kitap Okuma Davranışlarının Sistematik İncelenmesi

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Eğitim alanında, çeşitli e-öğrenme sistemlerinin ortaya çıkması ve pratikte uygulanmasıyla birlikte, öğrencilerin ne tür öğrenme etkinliklerini tamamladıklarını gösteren "öğrenme günlükleri" otomatik olarak kaydedilmekte ve kullanımı kolay hale gelmektedir. Öğrenme günlüklerinin uygulama alanları, öğretim içeriklerinin önerilmesi, notların tahmin edilmesi ve düşük not alan öğrencilerin erken tespiti gibi geniş bir yelpazeye yayılmaktadır. Öğrenme analitikleri ve e-kitap sistemleri, öğrenci öğrenmesini desteklemek için giderek daha fazla birlikte kullanılmaktadır. E-kitaplar, geleneksel ders kitapları ile mümkün olmayan öğrencilerin okuma süreçleri ve davranışlarına ilişkin günlük verilerinin toplanmasına ve analizler yapılmasına imkân tanımaktadır. Bu bağlamda bu çalışmada öğrencilerin e-kitap okuma davranışlarının sistematik olarak incelenmesi amaçlanmaktadır. Çalışmanın araştırma boyutu uygulamaya dönük bulguların ve tartışmaların incelendiği sistematik bir literatür taraması olarak desenlenmiştir. Scopus, Web of Science ve ERIC veri tabanlarında "learning analytics veya log" ve "e-book" ve "student" ve "behaviour" anahtar kelimeleri ile yapılan taramada toplamda 56 makale/bildiriye ulaşılmıştır. PRISMA modeli ile filtreleme kriterlerine uygun olacak şekilde 30 çalışma araştırmaya dahil edilmiştir. Sonuç olarak bu çalışmalarda öğrenme davranışlarından geri izleme/atlama, öğrenci katılımı, memnuniyet düzeyi ve algıları, öğrenme performansı, okuma katılımı ve anlama düzeyi, öğrenme stili, kelime bilgisi kazanımı gibi değişkenlerin incelendiği görülmüştür. Ayrıca yapılan literatür taraması çerçevesinde tercih edilen araştırma yöntemi, örneklem grubu, veri toplama araçları, veri analiz yöntemleri, tercih edilen sistem, uygulamanın yapıldığı disiplin ve çalışmaların ülke ve yıla göre dağılımları incelenmiştir. Literatür taraması sürecinde elde edilen bulgular, bu alanda yapılabilecek sonraki araştırmalara yol göstermek ve öğrenme analitiği ve e-kitapların birlikte ve etkili kullanımına yönelik rehberlik sağlamak amacıyla sunulmaktadır. Literatür taraması sonuçları değerlendirildiğinde e-kitapların; öğrencilerin okuma süreçlerini izlenmesine ve okuma sonuçlarını tahmin etmelerine olanak tanıyabilecek gizli bir değerlendirme ortamı oluşturacağı, öğrencilerin gömülü soruları okumaya ne kadar çok zaman harcarlarsa soruları doğru cevaplama olasılıklarının ve kelime bilgisi kazanımlarının o kadar yüksek olacağı, öğrencilerin okuma davranışlarının farklı profillerde belirlenebileceği, risk altındaki öğrencilerin tanımlanabileceği ve öğrencilerin kişiselleştirilmiş öğrenme deneyimlerine katkı sağlayabileceği görülmüştür.

Anahtar Sözcükler: öğrenme analitiği, log, öğrenme günlüğü, öğrenci, e-kitap, okuma davranışı

(66) Unveiling COVID- 19 : Dualistic Exploration of Challenges and Opportunities Teachers Faced

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The Covid 19 epidemic, which started to spread in late 2019, caused schools to be closed, education and training activities in the world to be carried out remotely, and therefore the transition to digital education. During this process, students, teachers and parents were in an unfamiliar educational situation. The purpose of this research is to understand teachers' experiences during the Covid 19 process from their perspective. In the research, which included findings regarding a part of a comprehensive grounded theory study, qualitative research method was used and in-depth interviews were conducted with 23 teachers. Teachers stated that they had many difficulties in this process and that this situation increased the digital inequalities they experienced. These difficulties are presented in three main themes: student, system and teacher-related difficulties. Students' inability to access technological tools, their reluctance to participate in classes, lack of communication with students, failure to protect the privacy of the student's home life, parents' failure to follow their children's education process adequately, and concerns about health problems are classified as student-related difficulties. Teachers' lack of knowledge about the distance education process, their unfamiliarity with the digital platforms used for distance education, their inability to find suitable materials for their lessons, their inability to adjust the lesson duration and plan, their insufficient digital skills, their lack of sufficient technological equipment, and the difficulties of working at home have emerged as teacher-related difficulties. Internet infrastructure and connection problems, problems with assessment and evaluation and class participation, problems with assigning too many lessons to teachers or not being able to assign them at all, and security problems on the platforms used for distance education have been identified as systemic problems. Teachers also stated that distance education during the pandemic has many benefits. These contributions are themed as contributions from teachers', systemic and student's perspectives. In conclusion, while the COVID-19 pandemic has caused many challenges for teachers, it has also presented many opportunities by accelerating the adoption of online education.

Keywords: covid 19, distance education, remote learning, emergency remote education, challenges, opportunities

(67) The role of personnel management at agricultural business

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Abstract. The relevance of improving the efficiency of agriculture in Albania and, accordingly, the role of personnel management in the implementation of this task has grown especially in recent years when the number of pastures and arable land has substantially decreased due to an increase in the area of mineral extraction. The purpose of the study is to determine the most effective motivation and planning system for them, considering the national characteristics and mentality of agricultural workers, and to form recommendations on the most acceptable management style for this group. The Holfstede typology of cultural dimensions was used as a key method to identify the cultural and behavioural characteristics of the target audience. According to the obtained data on the typology of cultural dimensions, it was determined that values in the examined social group are largely determined by traditions and customs, which means that a managerial model is in demand that will not impose existing Western management principles but uses its own tools based on relatively democratic principles. Based on the obtained characteristics, recommendations were formed on such key management tools as the principles of subordination, the system of setting tasks and monitoring their implementation, and on the effective motivation of personnel. The practical importance of the study lies in the development of recommendations for improving personnel management and, as a result, increasing efficiency at agricultural business in Albania.

Keywords: Management, cattle breeding, agrocomplex, agriculture, Hofstede method.

(69) The Opinions of the Instructors on the Effectiveness of Distance Education in Teaching English at Higher

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Considering the rapidly increasing necessity and importance of distance education in today's education world and the importance of learning English as a foreign language, the quality of foreign language teaching through distance education in universities that provide a highly qualified workforce and where science is developed has become a matter of curiosity. This research aims to determine the opinions of faculty members and students regarding the effectiveness of distance education in teaching English at the higher education level, both in synchronous and asynchronous dimensions. This research was carried out in a case study design, one of the qualitative research methods. Research data was obtained using interview forms created by the researchers. The study group, which was determined by using criterion sampling and easily accessible sampling methods, which are among the purposeful sampling methods, consisted of 10 faculty members who provide English education asynchronously and synchronously within Balıkesir University School of Foreign Languages. Content analysis and descriptive analysis methods were used to analyze the data. According to the results of the research, it was determined that the instructors and students had sufficient personal opportunities in distance education and had positive and negative opinions about both synchronous and asynchronous education. It has been determined that faculty members mostly prefer hybrid education. It was concluded that the participants' suggestions and expectations were mostly centered on the view that qualified tools and the internet should be used and material diversity should be provided.

Anahtar Sözcükler: Distance Education, Higher Education, EFL Teaching

(70) The impact of generative artificial intelligence in the legal education

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This communication is linked to an ongoing educational innovation project. It proposes an operation in two phases. Firstly, the evaluation of the impact of artificial intelligence on legal practices that students carry out at home in online and distance universities. With this initial evaluation of current practices, it is possible to quantify the accuracy level of AI in specific scenarios. The second phase aims to adapt these practices to ensure that artificial intelligence either becomes ineffective in its responses or that its use becomes acceptable. Regarding this second phase, it is possible to determine a series of strategies to neutralize the risk of fraudulent use of these technologies. Thus, the prior work of the teacher should start with determining the potential impact of each subject. It is an initial phase that must be considered prior to integrating artificial intelligence into the process. Preliminary results allow for the provision of not only a set of adaptation strategies to this new reality but also an identification of deficiencies in current artificial intelligence programs leading to a relative position. Results can vary greatly depending on the subject matter and specific scope. The more specialized the subject and academic level, the lower the level of utility demonstrated by artificial intelligence. Although artificial intelligence is still under development and its advancements are constant and rapid, this set of strategies also allows for integrating artificial intelligence into the teaching-learning process, familiarizing teachers with its use, and conveying to students the advantages and risks, as well as the significant limitations, posed by this technology. A study that begins with combating fraud using artificial intelligence and culminates in proposing the acquisition of digital competencies in AI by students.

Keywords: Artificial Intelligence; Fraud; Adapting activities

(71) Investigating EFL instructors' TPACK and Intelligent-TPACK: Technological Pedagogical Content Knowledge in the Age of Artificial Intelligence

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The emergence of Artificial Intelligence (AI)-based tools, particularly the launch of ChatGPT, has resulted in a significant increase in research on its adaptation in the educational context. However, the implementation of AI in the educational context presents various challenges, and many argue that teachers will have a crucial role in incorporating AI into education (Seufert et al., 2021; Çelik, 2023). To examine the current situation, this study employed a quantitative research approach and a correlational design to investigate participants' current levels of competency in two concepts: TPACK and Intelligent-TPACK. Data collection involved 53 EFL instructors who completed TPACK-EFL and Intelligent-TPACK surveys (Baser et al., 2016; Çelik, 2023). Statistical analysis was conducted to examine the four constructs of each survey: Technological Knowledge (TK), Technological Content Knowledge (TCK), Technological Pedagogical Knowledge (TPK), and Technological Pedagogical Content Knowledge (TPACK). Additionally, the relationship between the scores and two categorical variables, namely (a) perception of AI and (b) years of experience, was investigated. The analyses revealed significant differences between instructors' TPACK and Intelligent-TPACK scores, indicating that proficiency in technology in general does not necessarily translate into proficiency in emerging technological domains. Furthermore, while there were significant differences between instructors' TPACK and Intelligent-TPACK scores in terms of their perception of AI-based tools, there was no significant difference found between the groups with different lengths of teaching experience.

Keywords: Artificial Intelligence, Intelligent-TPACK, Teacher Competency, Teacher Education, Technological pedagogical content knowledge (TPACK).

(72) Adaptation and Implementation of Artificial Intelligence Literacy Test into Turkish

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The rapid development of artificial intelligence has transformed the way we live, learn and work. Artificial intelligence is a technology that mimics human intelligence and is capable of learning and solving problems. AI literacy refers to the ability of individuals to understand, use, monitor and think critically about AI applications, even without the expertise to build AI models. The AI era requires the development of a variety of functional, social and technical competencies of learners. To cope with the challenges and take advantage of the opportunities associated with AI, university students need to have a basic understanding of AI (AI literacy). This does not only apply to students in computer science-related disciplines who may be involved in the development of AI. It applies to students in all disciplines, as they will likely use AI tools in their professional lives, regardless of the sector they will work in. In this regard, assessment tools are needed to determine students' AI literacy levels. When the related literature was examined, no measurement tool was found to assess the AI literacy levels of university students. Based on this need, the study aimed to adapt the Artificial Intelligence Literacy Test developed by Hornberger, Bewersdorff, Nerdel (2023) into Turkish and apply it. The study group of the research consists of undergraduate students attending higher education institutions. The AI Literacy Test, originally developed by Hornberger, Bewersdorff, Nerdel (2023), was used as the data collection tool. The data obtained were discussed in the light of the necessary statistical analyzes and recommendations were presented according to the results of the study.

Anahtar Sözcükler: Artificial intelligence, Artificial intelligence literacy, Artificial intelligence education

(73) ChatGPT: An Alternative Tool for Assessing Students' Texts in Turkish?

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Since its release, ChatGPT has rapidly emerged as a revolutionary tool, altering the landscape of language-related tasks and interventions. As a text-based artificial intelligence tool, ChatGPT has necessitated a reevaluation of conventional approaches, particularly in the pedagogy of writing. The time-consuming nature of evaluating student writing is a well-known challenge for teachers. This research aims to determine the reliability of ChatGPT as an assistant to Turkish teachers in evaluating student writings. To this end, nine texts across three proficiency levels, weak (f=3), moderate (f=3), and advanced (f=3), were selected. The texts' levels were assessed using Kaldırım's rubric (2014), which includes three sub-dimensions: Planning, Spelling-Punctuation, and Language-Expression. These texts were then scored using the rubric by four distinct groups: 14 Turkish teachers, 10 pre-service Turkish teachers, ChatGPT (10 instances), and a trained version of ChatGPT (1 instance). Consequently, the nine texts received a total of 315 scores. Logistic regression analysis was utilized to examine whether the scores from the four groups significantly predicted the texts' proficiency levels. The results indicated that Turkish teachers outperformed pre-service teachers and ChatGPT in accurately classifying text levels. Overall, human raters (teachers and pre-service teachers) scored the texts more precisely than the AI (ChatGPT and trained ChatGPT).

Anahtar Sözcükler: Assessing Writing, Student Texts, ChatGPT

(74) What's Going On on Their Heads: A Case Study of Students' Minds On during STEM Exhibition

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This article explores the cognitive engagement of students during a STEM exhibition project. This study is focusing on their thought processes throughout the endeavor to identify elements that either promote or hinder "minds on" experiences. The research adopts a narrative qualitative approach to get a comprehensive picture of students thought processes. In this study, ten second-grade students engaged in a catapult-making project are observed. It is supplemented by interviews and analysis of worksheets and teacher interviews for data triangulation. Transcribing and thematically analyzing the data, key patterns and insights were identified through coding. The findings reveal that the project lacks essential characteristics of a STEM project, such as student-centeredness, an engineering design process, and collaborative elements. It is also identified that students are given a very little space to think and try out ideas so they didn't own the experiment. The study also identifies factors that contribute to fostering "minds on" engagement, such as students' curiosity and thought-provoking questions. Conversely, obstacles to cognitive engagement include inattention, conformity to social norms, segmented learning experiences, and excessive teacher intervention. These results underscore the necessity for a comprehensive approach to enhance "minds on" engagement in science education and emphasize the importance of giving students the opportunity to think, test, and evaluate. The article also discusses strategies to promote such experiences.

Keywords: minds on, hands on, meaningful learning, STEM learning

(75) From Surviving to Thriving: Strategies for Enhancing Teacher Resilience in Online Education

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It is well-known that teaching can be stressful as it is one of the most challenging and complicated professions in the world owing to its intellectual, emotional, and service-providing nature (Mercer, 2020; Sikma, 2021). With the rapid expansion of online teaching, the amount of stress, burnout, and the number of challenges has doubled, leading to increased attrition. As a result of these demanding circumstances, cultivating teacher resilience seems critically important. Teacher resilience defined as the ability to stand against natural stressors and setbacks in teaching capacity holds significant importance due to its potential to yield numerous positive outcomes (Wang, 2021). Resilience is vital in reducing teachers' stress while enhancing motivation, well-being, work enjoyment, professional identity, and self-efficacy (Brunetti, 2006; Doney, 2013; Richards et al., 2016). Similarly, teacher resilience impacts students' motivation and academic achievement (Li et al., 2019). Given the impacts on teachers and learners, it becomes essential to develop and enhance the resilience of teachers not only in face-to-face teaching environments but in online teaching platforms, as well. The reasons why teachers' resilience is particularly vital in online teaching contexts are multifaceted including adjustments to new instructional methods, unpredictable disruptions, and a lack of student motivation. This study aims to provide practical recommendations for language teachers to support the cultivation of teacher resilience in online teaching platforms. Drawing on a thorough review of related literature, the study presents strategies and practices to be utilized by teachers in fostering resilience. Moreover, the study has some implications for language teachers, underscoring the need for language educators to prioritize the cultivation of resilience in teacher training programs.

Keywords: teacher resilience, online teaching, teacher psychology

(76) The Place Of Open And Distance Education In Teaching English As a Foreign Language in Türkiye

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The world is changing and developing faster than ever before, and technological advancements are beyond our comprehension, and the world, which is rapidly advancing in the field of technology, is preparing to present a new digital age to new generations by developing the innovations brought by the pandemic process, which accelerated the developments in technology through education. Keeping up with the new world flow that combines education with technology has become the responsibility of every branch and field. Language learning and language teaching are the ones of these fields that are exposed to these innovations and develop new techniques and methods in response to new technological developments. When the link between the language learning process and online education is considered within the scope of Turkey, the question that is the main theme of this study arises: Is English, which is taught as a foreign language in Turkey, suitable to be taught and learned through open and online education? This study is carried out in a context based on the place of online education in the learning and teaching of English as a foreign language in Turkey. This study is carried out by conducting a survey in which the opinions of students and experts are received about the place of online education in teaching and learning English within the scope of the determined main problem. The results obtained from the survey studies are completed by making the necessary analysis. and the study is concluded based on the recommendations determined according to the results.

Dünya her zamankinden daha hızlı değişiyor ve gelişiyor, teknolojik gelişmeler idrakimizin ötesinde ve teknoloji alanında hızla ilerleyen dünya, teknolojideki gelişmeleri eğitim yoluyla hızlandıran pandemi süreciyle beraber bu yenilikleri de geliştirerek yeni nesillere yeni bir dijital çağ sunmaya hazırlanıyor. Eğitimi teknolojiyle birleştiren yeni dünya akışına ayak uydurmak, her branşın ve alanın sorumluluğu haline gelmiştir. Dil öğrenimi ve dil öğretimi de bu yeniliklere maruz kalan ve yeni teknolojik gelişmelere karşılık yeni teknik ve yöntemler geliştiren alanlardan biridir. Türkiye özelinde dil öğrenme süreci ile çevrimiçi eğitim arasındaki bağlantı ele alındığında bu çalışmanın ana temasını oluşturan soru ortaya çıkmaktadır: Türkiye'de yabancı dil olarak öğretilen İngilizce açık ve çevrimiçi eğitim yoluyla öğretilmeye ve öğrenilmeye uygun mudur? Bu çalışma, Türkiye'de İngilizcenin yabancı dil olarak öğrenilmesi ve öğretilmesinde çevrimiçi eğitimin yeri temel alınarak gerçekleştirilmiştir. Çalışma, belirlenen temel problem kapsamında çevrimiçi eğitimin İngilizce öğretimi ve öğrenimindeki yeri konusunda öğrenci ve uzman görüşlerinin alındığı bir anket yapılarak gerçekleştirilmiştir. Anket çalışmalarından elde edilen sonuçlar gerekli analizler yapılarak tamamlanmıştır. Ve sonuçlara göre belirlenen önerilere dayalı olarak çalışma sonlandırılmıştır.

Keywords: Language, Education, Technology

(78) Lecturers' Perspectives of Augmented Reality in Teaching ODL Courses

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The integration of augmented reality (AR) in education holds promise for transforming traditional and Open and Distance Learning (ODL). While many studies exist that explore the educational advantages of AR, not many studies have investigated lecturers' views on the integration of AR in educational practice. The objectives of the study are to identify advantages and disadvantages of using AR in teaching ODL courses and their plans in integrating AR in teaching and learning, and to explore the lecturers' perceived support from the university's top administrators and suggestions regarding the use of AR in teaching and learning.A qualitative method with a phenomenology design was adopted for the study. Six male and seven female full-time lecturers across disciplines who are currently attached to the Universiti Sains Malaysia were selected as participants. The data collected are analysed using the deductive coding approach to identify key themes and patterns.Findings showed that AR are perceived as advantageous particularly for language and technical courses, while enhancing engagement, motivation, and information retention among students. Challenges are attributed to domain-specific issues, information overload, costs, technical complexity, resistance and concerns over health effects. Lecturers believed that with proper support, AR could boost student interest, interaction, and immersive learning experiences with 3D virtual objects.Lecturers' perspectives towards the adoption of AR show a promising future for its implementation in teaching and learning. Yet, several challenges persist. Success hinges on educator and student willingness, alongside robust university support in training, infrastructure, and AR integration. Successful implementation of AR requires more training, funding, and technical expertise support. Further studies are to refine its implementation and gauge the impact on learning from learners' viewpoints.

Keywords: Augmented reality, distance education, educational technology, metaverse, open and distance learning.

(79) Bibliometric Analysis of Studies on Gifted Education and Mathematics Education

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This study aims to present a comprehensive bibliometric analysis of academic publications in the field of gifted education and mathematics education. Using a descriptive research design, 407 studies published between 1989 and 2024 were analysed. The analysis reveals research trends, key authors, institutions, countries and themes in the field of giftedness and mathematics education. The number of publications showed a general upward trend over time, with a particularly rapid increase towards the end of the 2000s. The number of citations has also increased, but not always in direct proportion to the number of publications. Among the most prolific authors are Tiri, Kirsi and Scott J. Peters. Citation analyses show that researchers such as Renzulli J.S., Sternberg R.J., Vantassel-Baska J. and Ford D.Y. have had a significant impact on the field. Institutions such as Purdue University, Northwestern University and the University of Virginia play a central role in research in this field. The USA is a leader in co-operation with many countries. The most frequently used keywords in research are "gifted education", "mathematics" and "gifted". These terms have strong relationships with each other. Most of the studies are in article format and are included in ESCI and SSCI indexes. In conclusion, this bibliometric analysis provides a holistic view of the state of research in the field of giftedness and mathematics education. Trends in the literature, significant contributing authors, institutions and themes are identified. The study is a valuable resource for educators, policy makers and researchers.

Anahtar Sözcükler: Giftedness, Gifted Education, Mathematics Education, Bibliometric Analysis

(80) Adapting Higher Education Policies in Africa to the Digital Age: Lessons from the COVID-19 Pandemic

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The COVID-19 pandemic has significantly impacted global higher education systems, necessitating urgent adaptations and innovative policy responses. In Africa, and specifically within the Central African Economic and Monetary Community, these challenges are intensified by existing infrastructural, economic, and socio-political constraints, hindering the effective adoption of digital learning. This paper examines the rapid shifts in higher education policies prompted by the pandemic, emphasising the need for a paradigm shift towards more inclusive, flexible, and technology-driven educational models to ensure future resilience. Utilising qualitative analysis and case studies from the Central African region, this study assesses the effectiveness of policy adaptations in the face of pandemic-induced educational disruptions. It identifies critical success factors and obstacles, providing insights into infrastructure development, teacher training, curriculum adaptation, and student support systems. The findings offer a foundation for strategic recommendations aimed at enhancing policy frameworks to facilitate a more robust integration of digital learning across African higher education. The paper aims to contribute to the discourse on educational policy in the digital age, offering guidelines for policymakers, educators, and stakeholders across Africa. By leveraging lessons learned during the COVID-19 pandemic, it advocates for sustainable digital transformation in higher education, enhancing access, quality, and equity in the learning experience.

Keywords: Higher Education Policies, Digital Learning, COVID-19 Pandemic, Central African Economic and Monetary Community, Technology-Driven Education, Policy Adaptation, Online Learning, African Higher Education, Educational Resilience, Inclusive Education.

(81) The Use of Chatbots in Open and Distance Learning Support Services

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In open and distance learning, the learners being distant from the learning environment and instructors prioritize the importance and necessity of support services. With learner needs and current technological developments, learner support services in open and distance learning need continuous development and improvement studies to be fast, effective and efficient. In addition, the increasing number of learners in the open and distance learning system and the desire of learners to receive instant feedback on their problems make it necessary to use current technologies in support services. With current technological trends and developments in the field of artificial intelligence, the use of chatbots is increasing day by day. Chatbots are software that can operate 24/7 and provide rule- or context-based answers to questions asked by learners. There are few studies on the use of chatbots in open and distance learning. In this regard, the aim of this study is to examine the usage potential and status of chatbots in the context of open and distance learning support services and types. A comprehensive perspective on support services was provided by conducting a literature review in the study. In this study, the use of chatbots was examined in the context of academic, administrative, social, and technical support types. Results show that, the use of chatbots, which are supported by artificial intelligence and are one of the current technologies, in the field of support services, can enable learners to reach their needs more quickly in open and distance learning systems. In this context, the usage areas and general classification of chatbots are given, and sample applications for which types of chatbots can be used in the context of support type are discussed. Finally, the study discussed which types of chatbots developed could be more useful in different types of support services. Additionally, research suggestions for future studies are presented in the context of chatbots in each type of support.

Keywords: Open and distance learning, distance education, support services, chatbots, support types, artificial intelligence,

(82) The importance of Care coordination and Digital Health Literacy on Self-Care in Older Adults with Multimorbidity Chronic Conditions – emerging healthcare concepts in Low Resource Settings

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Patients with multimorbidity, defined as two or more chronic conditions, require constant treatment and care. It is associated with social isolation, poor quality of life and greater healthcare use, worse self-reported health status, depression, and reduced functional capacity worldwide. Almost all European countries, both EU and non-EU, as population is aging and healthcare technology improves are dealing with a rising prevalence of multimorbidity. Chronic care is mostly offered in primary care, but in general, care for older adults with multimorbidity chronic conditions in low-resource settings is home-based and provided by a family member or a friend. The objective of the study was to evaluate the effectiveness of digital health support for targeted older adults with multimorbidity and chronic conditions on the communication of health information and support and their impact on self-care capacity building. A focus group discussion among health managers in Albania was conducted concerning the care delivery strategies used during the pandemic and how they can be adopted to ensure care coordination. Overall, the group agreed that providing support to patients' self-care through collaborative efforts between health managers, healthcare professionals, and the community of older adults with multiple morbidities is a key task to ensure patient engagement. The involvement of older adults can be assured through phone contact, text messages, voice reminders, smart phone applications, or wearable devices, which require the improvement of their digital health skills. The discussion concluded that self-care support and digital health literacy skills among older adults with multimorbidity and chronic conditions should be a patient-centered collaborative approach. It is not the sole responsibility of a patient but should be shared with care professionals at the multidisciplinary level as an integrated part of the healthcare system with an impact on the reduction of healthcare costs and the improvement of quality of life. Innovative approaches to improve self-care for older people with multimorbidity in low-resource settings are recommended.

Keywords: Self-Care, older adults, multimorbidity, digital health, literacy, low resource settings.

(83) Implementing ODL in multicultural society: The role of Universitas Terbuka

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This article studies the case of Indonesia, a unique country because it consists of various ethnicities, religions, customs and cultures to analyze the Open and Distance Learning implementation system by Universitas Terbuka (UT) and draw implications from its experience. The method used is a comprehensive qualitative and systematic review of data obtained on the implementation of the learning process carried out by UT. The findings are that UT needs to consider a curriculum that is able to adopt the uniqueness of multicultural Indonesian society. The importance of collaboration between UT and related partners, both at the central and regional levels, is mutually beneficial so that services to the community can be optimal. Online learning platforms should be designed with universal accessibility in mind. By ensuring affordable education costs and inclusive policy support, implementing ODL can be a means of strengthening harmony and integration in a multicultural society. This article provides lessons on how UT effectively organizes the learning process for multicultural Indonesian society through the ODL system. The author suggests UT hold seminars, workshops or virtual events that promote intercultural dialogue so that by adopting a multicultural approach, UT can ensure that distance education in Indonesia creates an inclusive environment and respects differences.

Keywords: multicultural society, ODL, Universitas Terbuka

(84) Values, Perceptions, and Personalities of Students Regarding Online Learning at Universitas Terbuka and Its Influence on Decisions to Become Students in Master of Management Study Program Moderated by Social Media

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The Global Talent Competitiveness Index (GTCI) report from INSEAD demonstrates that Indonesia's human resource competitiveness still requires improvement. In this report, Indonesia holds the sixth position with a score of 3.86. In addition, the education index data presented in the 2017 Human Development Report informs us that Indonesia is in the seventh position in ASEAN with a score of 0.622. This study aimed to analyze the values, perceptions, personalities, social media, and the decision to become an MM Study Program student at the Universitas Terbuka, to analyze the influence of values, perceptions, and personalities on the decision to become an MM Study Program student at the Universitas Terbuka, either partially or simultaneously, to analyze the effect of values on the decision to become an MM Study Program student at the Universitas Terbuka moderated by social media, analyze the influence of perceptions on the decision to become an MM Study Program student at the Universitas Terbuka moderated by social media and to analyze the influence of personalities on the decision to become an MM Study Program student at The Universitas Terbuka moderated by social media. The approach used is a quantitative approach with descriptive analysis. The samples in this study were first-year MM students (semesters 1 and 2). The data analysis technique used was SEM with the PLS approach. The results show that values are in the high category, perception is in the high category, personalities are in the high category, social media is in the high category, and the decision to become a student is in the sufficient category. Values, perceptions, and personalities positively and significantly affect the decision to become a student in the MM Study Program at the Universitas Terbuka, both partially and simultaneously. The more optimal the MM Study Program is in utilizing values, perceptions, and personalities with support from social media, the stronger it will solidify the decision to become a student at the Universitas Terbuka MM Study Program. The values moderated by social media positively and significantly affect the decision to become a student in the MM Study Program at Universitas Terbuka. Social media moderates perception, positively impacting individuals' choices to enroll in the MM Study Program at Universitas Terbuka. Additionally, social media moderates personalities, resulting in a positive and significant influence on the decision to become a student in the same program.significant effect on the decision to become a student at the MM Study Program at Universitas Terbuka.

Keywords: values, perceptions, personalities, social media, and decisions to become students

(85) Understanding Tutor Perspectives: Evaluating Learning Management Systems at UT Surabaya Using the Technology Acceptance Model

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The use of an LMS is a key factor in the learning process. This paper focuses on understanding tutors' perspectives when using an LMS, specifically how they utilize its features in their online classes. We collected data using a questionnaire based on the Technology Acceptance Model (TAM), given to 120 tutors working at Universitas Terbuka, specifically in the Surabaya Region Unit. We examined three external components of TAM: system quality, perceived self-efficacy, and facilitating conditions. The collected data were then analyzed using structural modeling, resulting in three main findings. Firstly, the functionality of the LMS affects how confident tutors feel about using it. This includes aspects such as its smoothness, speed, features, content, and user-friendliness. Secondly, a tutor's proficiency in using the LMS does not affect their ease of access to additional resources for the LMS, such as technical support, internet connectivity, hardware, software, training, or user guides. Most importantly, tutors find it easy to create learning materials in the LMS based on students' needs and to integrate technology into the learning process.

Keywords: Learning management system, tutor's perception, technology acceptance model, distance learning, education

(86) Reading in the Digital Realm: EFL Learners' Approach to Reading in L2

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21st-century skills, including critical thinking, creativity and digital literacy skills, are vital for developing effective second/foreign language (L2) reading skills to empower learners in today's globalized and technological world. As technology has become a ubiquitous part of life in the digital age, print reading has gradually transformed into digital reading. Thus, it is pertinent to redesign the aspects of reading to cultivate 21st-century skills and examine learners' approach to digital L2 reading. For this purpose, a systematic blended extensive reading (ER) program was designed for a tertiary-level English as a foreign language (EFL) context, incorporating the elements of digital reading and face-to-face meetings. In this program, EFL learners engaged with diverse types of digital texts (e.g., short stories, news, recipes, social media posts, etc.) within their interests and proficiency, kept a virtual reading log, participated in face-to-face meetings, and received teacher guidance. This qualitative study illustrated EFL learners' L2 reading practices and perceptions of L2 reading in the digital realm when enrolled in a blended ER program. The findings revealed that learners read various digital texts extensively. After the program, most participants favored digital L2 reading when offered a digital library with diverse reading materials. They were able to navigate and access online resources to improve their L2 reading skills under teacher guidance. This study sheds light on fostering L2 reading in the digital realm regarding EFL learners' changing reading practices. It offers valuable insight to language teachers and practitioners to cultivate effective L2 reading experiences in their teaching contexts.

Keywords: reading in L2, digital L2 reading practices, extensive reading, blended extensive L2 reading program

(87) Empowering Young Entrepreneurs through Microlearning Using a Free Online Environment in Romania

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Aiming for the nurturing of entrepreneurial skills among young individuals, this paper presents a pioneering program design centered on microlearning principles. Anchored in a comprehensive literature review of entrepreneurship concepts, our initiative leverages accessible platforms such as YouTube channels and podcasts to deliver dynamic and engaging content tailored to the needs of aspiring entrepreneurs. Our program explores a new paradigm in educational delivery, emphasizing bite-sized learning modules that facilitate flexible and personalized learning experiences together with constant feedback from the viewers. By breaking down complex entrepreneurial concepts into digestible segments, we empower participants to acquire essential skills and competences at their own pace and convenience. Central to our approach is the integration of insights gleaned from scholarly literature on entrepreneurship. Through rigorous review and synthesis, we have curated a curriculum that encapsulates the foundational principles, best practices, and emerging trends in entrepreneurship. From ideation and market analysis to financial management and strategic planning, our program encompasses a diverse array of topics essential for entrepreneurial success. Furthermore, our program fosters an interactive learning environment that encourages active engagement and knowledge application. Utilizing features such as live Q&A sessions, case studies, and peer discussions, we promote collaborative learning and critical thinking skills. Moreover, supplementary resources such as curated readings and online forums provide avenues for deeper exploration and reflection. In conclusion, this paper underscores the transformative potential of microlearning in democratizing entrepreneurial education. By synthesizing insights from the literature and leveraging innovative technologies, our program embodies a holistic approach to skill development and knowledge dissemination. As we navigate the evolving landscape of education and technology, initiatives such as ours serve as catalysts for empowering the next generation of entrepreneurial leaders and innovators.

Keywords: Microlearning, Entrepreneurship, Free online environment, YouTube Channels, Podcasts

(89) How and in what ways is international university students' learning mediated by technology on a pre-degree programme academic skills course?

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Technology-mediated learning research in higher education tends to give attention to the technology tool rather than the detail of mediation. However, the interaction between a user and technology is complex and cannot be simplified to notions of tool use. Understanding mediation is of importance as it lies at the heart of the interaction between a user and educational technology. Consequently, the research investigated the mediation process of students' interaction with educational technology and the learning management system and third-party resources being used at the University of Birmingham. The research employed a case study approach which applied qualitative methods that focused on the context, thoughts and actions of the user. Verbal protocols, group interviews and student diaries were used to obtain data from a sample of 11 international student participants that were taking a 4-week university preparation course at Birmingham University. Activity theory framework and additional concepts of multivoicedness, privileged voice and engagement theory were applied to analyse the qualitative data collected. Analysis of the data highlighted several determinates of student interaction with education technology that indicate educational technology is a means to access content and learn rather than a technology that motivates the learner and drives learning itself. The analysis of data also informed and shaped four notions that help to describe the mediation process and what takes place when students use educational technology: poly-motives, super-objective, privileged voice and stimulus means. The four notions provide a language that helps to explain the process of user mediation with technology that identify moments of struggle and tensions that students' experience when using technology. There is an urgency to extend research on mediation when students use technology and a better understanding of what is actually taking place for learning to occur is needed. This research is a starting point that questions the assumptions being made with educational technology and the systems used to engage the user.

Keywords: Technology, mediation, engagement, activity theory

(90) Technology and its role in medical care and education, advantages and challenges in practical implementation

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The advancement of technology at these fast rates has an impact on medicine in many directions, starting from patient care through technology to the role of technology in the growth of medical knowledge and health education. The implementation of technology in health education has many advantages. One of the greatest advantages of technology in healthcare education is the ability to provide hands-on, interactive experiences that simulate real-life scenarios. Online courses, e-books, and other digital resources allow healthcare workers or even medical students to access information and resources from anywhere, anytime. The influence of technology in health care is evident in several directions such as greater care for the patient, easy access to patient medical records, improved patient education, reduction in cost. General challenges include reduced face-to-face communications, education, cost challenges, users' attitudes, and specific challenges such as designing, safety considerations. This study is a rapid review which is related to scientific articles on the role of technology in education and medical care. In addition to the uses of technology, the challenges and difficulties of the practical use of technology by medical students and their professors, as well as medical staff and patients are also included. Medical education is definitely under the influence of technological changes and in adaptation to the advances that occur in order to produce a new generation of health care professionals who are capable and competent in the application of technology in clinical practice. The task of medical educators is to use these new technologies effectively to transform learning into a more collaborative, personalized, and empowering experience.

Keywords: medical care, medical education, technology, challenges, advantages

(91) Fostering Emotional Intelligence: The Role of AI in Transforming Teaching Practices

Anissa Cheriguene

Ens

Artificial Intelligence (AI) technologies are rapidly transforming the landscape of education, offering innovative opportunities to enhance teaching practices. This cross-sectional study, conducted in Teacher's Training College of Laghouat, Algeria, explores the intricate relationship between AI technology usage, teaching competencies, and emotional intelligence among faculty members. A sample of 60 faculty members participated in the study, with data collected through standardized questionnaires that assessed teaching competencies, emotional intelligence, and AI technology integration. Correlation analyses were conducted to investigate the interrelationships among these variables. The results of the study reveal significant positive correlations between self-assessed teaching competencies, indicating educators' comprehensive approach to their professional roles. Additionally, moderate positive correlations were found between the frequency of AI usage and teaching competencies, highlighting the potential of AI to enhance pedagogical skills. Emotional intelligence dimensions, such as empathy and social skills, also exhibited positive correlations with teaching competencies and AI usage frequency. These findings underscore the complex relationships among AI technologies, teaching competencies, and emotional intelligence in the realm of education. The study emphasizes the importance of tailored professional development programs, effective AI integration strategies, and the promotion of emotionally intelligent teaching practices to nurture academic success in the digital age.

Keywords: Emotional intelligence, artificial intelligence, academic success

(92) Unveiling Insights: An Analysis of Student Reflections on Technology's Role in Lifelong Learning

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Technology have transformed education into a lifelong journey, showcasing learners' knowledge and adaptability. Embracing technology enables learners to navigate a world of information, fostering continuous exploration and growth. This qualitative study utilizes analysis of reflective papers to explore the experiences of 15 university students with technology in the context of lifelong learning. Additionally, seven students were interviewed to gather more in-depth insights. The thematic analysis of the data revealed several key findings: the influence of technology on learning preferences, habits, and access to resources; the positive impact of technology on lifelong learning; strategies used to adapt to new technologies; and specific skills or knowledge gained through technology that have improved career prospects. Overall, this study contributes to a deeper understanding of how technology shapes lifelong learning and its implications for professional development.

Keywords: Technology; lifelong learning; university students; Kosovo

(93) Understanding University Students' Digital Literacy in Distance and Face-to-Face Learning

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For all generations, not just Generation Z, who are often labelled as digital natives, having the skill to use technology appropriately and effectively is essential as it is a vital part of our life. Since we cannot be certain that we have the abilities required to evaluate digital information, understanding digital literacy is even more important in the context of higher education because it helps us to measure and define our skill in using digital information. Therefore, this correlational study has two objectives: 1) to measure the Digital Literacy (DL) of Face-to-Face (FTF) campus students (group 1) and Distance Learning (DLe) campus students (group 2), and 2) to compare and test the correlation between the two groups of students. The Digital Literacy Scale (DLS) was distributed to 500 students at various levels (freshman undergraduates to postgraduates) spread across several campuses in Indonesia which apply Distance Learning or Face-to-Face Learning. The result of the analysis provides an up-to-date overview of the DL abilities of students in relation to their learning and socialization skills during their time as students. Furthermore, we also discuss the implications that indicate how they will continue to adapt to the drastic changes in the era of Industry 4.0.

Keywords: digital literacy; higher education; distance learning; face to face learning

(95) Best Practices for Bichronous Online Teaching and Learning

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Bichronous online learning is the intentional blending of asynchronous and synchronous online learning experiences. While research on bichronous online learning is new, one of the intuitive challenges that course designers and instructors face is determining the percentage of course content and the specific course content that should be included in synchronous sessions or asynchronous work (Author, 2022; Yamagata-Lynch, 2014). Methods This study used a qualitative research approach by interviewing 12 award-winning online instructors. Interview and Participants Twelve award-winning online instructors in US and Canada agreed to participate in the hour-long interviews resulting in a purposeful sample. Three instructors were male while the remaining nine were female. The award-winning online instructors had varied online teaching experience which ranged from 5 to 20 years and were from varied disciplines. Data Collection and Analysis Twelve award-winning online instructors were interviewed via the Zoom web conferencing application. Each interview ranged from 45 minutes to about an hour. At least two members of the research team participated in each interview. Each interview was coded using an open coding process. Two cycles of coding were used where two researchers read each interview after compiling the interview responses by questions. Similar codes were further categorized using constant comparative data analysis techniques. Results The themes that emerged for the best practices are included below. The award-winning online instructors discussed asynchronous online learning best practices for course design and structure, course resources, discussion forums, instructor presence and assessment. They discussed synchronous online learning best practices for the formats/activities/content of synchronous sessions, community-building in real-time, requiring/recording synchronous sessions and being flexible. Some of the themes had several subthemes which will be discussed during the presentation. Conclusion and Implications The best practices discussed in this paper have implications for instructors who currently teach in a bichronous online format or may be considering it in the future. It also has implications for instructional designers and administrators who work with faculty on offering courses in this modality. Based on the data the intentional blending of synchronous and asynchronous components has a lot of potential to enhance students' online learning experiences. References Yamagata-Lynch, L. C. (2014). Blending online asynchronous and synchronous learning. The International Review of Research in Open and Distributed Learning, 15(2). https://doi.org/10.19173/irrodl.v15i2.1778

Keywords: Online Teaching, Bichronous Online Learning, Best Practices

(96) IDEAS Framework for Teaching Online

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The IDEAS Framework stems from our extensive experience in online teaching and research within the field of online teaching and learning. After conducting a comprehensive review of existing literature, prior research, and teaching methodologies, we initially compiled a list of twenty-nine IDEAS components for online teaching and learning. Subsequently, we interviewed seven experts virtually in online teaching and research through thirty-minute sessions to solicit their insights and feedback on these elements. The culmination of these discussions resulted in the refinement and expansion of the IDEAS framework, yielding a final compilation of forty-four elements, organized into six distinct dimensions. The six dimensions of the IDEAS Framework are interrelated, and instructional decisions in one dimension will potentially influence others. For example, the dimensions of both Assessment and Evaluation are interrelated in that assessment data can also be used for formative or summative evaluation purposes; hence, instructors' decisions to employ various practices can influence subsequent instructional decisions. Further, the elements are noted practices in online teaching and learning research literature; however, not all of the practices are necessarily deployed or needed in the same online course. In all cases, instructional goals and student learning outcomes for an online course should influence how instructors choose to deploy their online teaching. Inclusion refers to providing opportunities to ensure that all learners feel they are welcomed and belong in the course. Design focuses on incorporating instructional materials, activities, resources, and assessments that are aligned to learning outcomes. Engagement focuses on the instructor promoting learner interactions and facilitating meaningful community building. Evaluation emphasizes the importance of assessing the online course using a variety of strategies and identifying areas for improvement. Assessment focuses on gauging the learners' progress in the course by measuring the achievement of the learning outcomes. Support is essential for both instructors and learners throughout the teaching and learning process. The IDEAS framework aims to support online instructors throughout the entire lifecycle of an online course, encompassing the phases before, during, and after the course. Although the six dimensions of Inclusion, Design, Engagement, Evaluation, Assessment, and Support may not encompass every intricate aspect of online teaching and learning, the IDEAS Framework offers a robust foundation that goes beyond the typical online course design elements found in other frameworks. This presentation will introduce the IDEAS framework and discuss the various elements that participants use in online teaching and learning. Link to Figure with the IDEAS Framework-
https://docs.google.com/document/d/1ihBUY4Ds1QkNpPm8KlQbT3NphkoTZBnt/edit?pli=1

Keywords: Teaching Online, IDEAS Framework, Best Practice

(97) AI ChatGPT Integration in Higher Education: Impacts on Teaching and Professional Development of University Professors in Kosovo

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This qualitative study explores the integration of AI ChatGPT in lectures or lecture preparation by university professors in Kosovo, focusing on its role in their professional development. Ten professors, representing both public and private universities, were interviewed to gather insights into their utilization of AI technology in teaching practices. Thematic analysis of the data revealed the various ways in which professors integrate AI ChatGPT into their lectures, highlighting its role in enhancing teaching effectiveness and efficiency. The findings contribute to the understanding of AI's impact on higher education in Kosovo and provide valuable insights for educators looking to incorporate AI technologies into their teaching practices. The study also investigates the familiarity of university professors with the capabilities of ChatGPT, explores the potential benefits and challenges associated with its use in teaching and learning, and assesses professors' inclination to implement ChatGPT in teaching and their expectations from its use.

Keywords: ChatGPT, university professors, higher education ,Kosovo.

(98) Assessing Interactions in Online Classroom Environments

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During the Covid-19 pandemic, there happened a rapid transition in education from face-to-face instruction to online platforms. As a result of this rapid conversion, educators started to deliver their courses online, which changed the traditional nature of classes by altering the classroom interaction between students and teacher. In language education, interaction plays a vital role in fostering communicative competence and language proficiency. This study aims to reveal how online English as a foreign language classes impact on the interaction in the classroom at the tertiary level. The study is based on an exploratory research design. Based on the analysis of online EFL courses, the data were collected and analyzed via the Communicative Oriented Language Teaching (COLT) observation sheets. The study indicated that online classes involved more teacher-student interaction with a reverse effect on student-student interaction. Group activities were infrequent, and online classes prioritize instruction, characterized by prolonged teacher-led discourse. Also, discipline-related issues were found to be uncommon in the online setting. Based on the findings, the study gives an understanding of interaction in online EFL classrooms. By considering the results regarding less student-student interaction, the study shows necessity to reevaluate strategies to enhance student-student interaction in online education, given the observed decrease. The study also suggests arranging online classes to increase students' class engagement more dynamically. Thus, the study contributes to the field by bringing some insights related to classroom interaction in online education to teachers, curriculum developers and administrators.

Keywords: Online education, classroom interaction, COLT observation schemes, English as a foreign language

(99) Effectiveness of Formative Assessment as a Pedagogical Tool in Management Education - A Case Study with an Indian B-School

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Effectiveness of pedagogical tools has always remained an important topic of research.in the education industry. The development of information and communication technology and subsequent changes in the behaviour and expectations in the learners community has forced the policy makers and educationists to come up with more innovative ways of course delivery to make the classroom experience more enriching both at school level and at higher education. Formative assessment is a way of ongoing evaluation and feedback process which entails more interaction between the instructors and the learners resulting in an enhanced learning outcome. This case study was conducted to evaluate the effectiveness of formative assessment for the postgraduate management students in an Indian business school. The result of our study showed that the score in formative assessment remains the most important predictor for the overall performance of the students and the general learning outcome for the subject treated with formative assessment methods was also enhanced. Qualitative analysis of the students feedback on their overall experience with formative assessment also revealed their high level of satisfaction and sense of fulfilment.

Keywords: Formative Assessment, Learning Outcome, Students' Performance

(100) Virtual Reality Studio for Collegiate Industrial Design Education

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The Printing Press. Electricity. The Telephone. Television. The Internet. Although seemingly unrelated, these aforementioned items are all technologies. Technologies that have changed us in unimaginable ways, not just individually but on a global scale. Now so engrained in everyday life that one can only try to imagine what life was like before their invention and widespread adoption. Utilizing the power of a technology that is now readily available, the collegial education system will be pushed to the brink of a technology-based transformation. That technology is Virtual Reality. The covid-19 pandemic greatly increased the rate of acceptance and usage of online services in lieu of traditional in-person attendance models. The world may have physically distanced but with existing technologies such as the internet, Microsoft Teams, and Zoom; education was able to continue. The shift towards completing tasks online resulted in an increased reliance on products and systems that catered to these alternative arrangements exposing flaws and displaying a need for the creation of a new system entirely. Many of the currently available products inadvertently aid students and professors in completing less work while appearing to be active, contradictory of a physical workplace where students and professors actions, attentiveness, and output are visible. In this paper I will discuss and propose a new type of Immersive Virtual Reality (I-VR) platform that can be a suitable environment for the industrial design studio to educate, retain productivity, communication, and build relationships between students and faculty while enabling a collaborative and accountable remote environment. This thesis shares a brief history and benefits of virtual reality from its emergence in the field of education, its use in design education, and its recent appearance in industrial design education through 2023. This thesis also shares an analysis of existing VR technology, its application, and the need for advancements to replicate the industrial design studio for a more fluid delivery of content learning. The thesis concludes with a matrix for a VR pilot program specifically prepared for the Industrial Design Department at the University of Cincinnati, for administration's consideration to adopt at the current time or near future. An initial start-up guide complements the pilot program's matrix by providing action steps and recommendations to begin a transaction to a fully remote immersive virtual reality industrial design studio.

Keywords: Virtual Reality, Immersive, metahuman

(101) Computer-Assisted Platform for the Intuitive Learning of Electromagnetic Modes Propagation in Broadband Domestic Optical Fiber Networks

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The great information transport capacity of optical fiber, currently unsurpassed by any transmission medium, makes it key in the study of current broadband telecommunications infrastructures, where telecommunications engineers have high employability rates. One of the challenges that students of this technology face is the understanding of very abstract electromagnetic signal propagation concepts, in general, and in particular, the propagation of electromagnetic signals in the last leg of FTTH access networks, called client or home networks. However, it is important that students of fiber optic technologies clearly know the way in which the signal propagates, know its limitations, and how to overcome or avoid them to take advantage of its advantages and be competent in the deployment and use of FTTH infrastructures that are of great extension and professional and social relevance today. Thus, the problem that arises in this paper is to have a teaching tool to help students understand critical effects in FTTH fiber propagation in client networks and, in this way, to make them capable of detecting, predicting, avoiding and intuitively learn the mechanisms to counteract them at the transmission medium level, and consider them in different areas and design levels. In particular, this project aims to provide students with a teaching tool for analyzing multimode optical fibers for FTTH optical networks in their domestic sections that allows, based on physical parameters of the fiber and working frequency, to automatically provide the user with the exact, linear and degenerate modes that propagate in the fiber. The methodology can be divided into five parts. First, using numerical methods with MATLAB, for a given step index fiber - given by the radius and refractive indices of core and cladding - and the working wavelength, obtaining the propagating modes and the values of its propagation constants. Secondly, to obtain the propagation constants of exact modes, a graphical method will be used to find the cut-off points of two eigenvalue functions, and the value of said propagation constants will be given in consideration of the transmission characteristics of optical fibers. Next, the automatization will be considered to obtain the nomenclature of the modes and value of the constants with MATLAB, so that these values, in addition to being displayed graphically, are offered numerically without needing to refer to the graphs obtained previously. In addition, the automation of the obtention of the linearly polarized modes will be carried out using numerical methods with MATLAB, that is, from the previous values of exact modes (propagation constants and identifiers) it will be indicated which are the linearly polarized modes automatically. Finally, the coding of the GUI graphical interface for a Windows/MacOS computer will be carried out to allow intuitive and interactive use of the software.

Keywords: Optical Fiber, Electromagnetism, Engineering

(102) Optical Field, Intensity and Power Analyzer in FTTH Client Networks for the Comprehensive Analysis of Macrobending using Smart Devices

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The global fiber optic components market is projected to reach $25.3 billion by the end of 2024. Notably, the emerging growth factors driving the deployment of these fiber optic-based FTTH networks are Cloud Computing and IoT, where Telecommunications engineering and connected industry students find many professional opportunities. Understanding the characteristics of the optical signal in FTTH home networks is especially relevant given the limited dimensions of the common telecommunications infrastructure conduits in them, which lead to the appearance of macrobending that drastically limit the fiber's ability to transport information due to the increase in losses in the associated signal. The background found in the literature for the interactive analysis of field, intensity and optical power is very limited: the only didactic application of fiber optic modal analysis in home networks found in the current literature is the one defined in the work of Aicklen et al., 1993 [5]. Furthermore, the features of this tool are very restricted. On the one hand, for example, it does not allow representations of power and/or confinement relationship, indication of modal field diameter or calculation of V-b curves, which are key to the study of fiber strength in the face of macrobending. On the other hand, the characteristics of the application are obsolete, corresponding to software from 1993 with great visual and interaction limitations, and which, in addition, cannot be deployed on the smart devices that students have in the laboratories or use both in class and in their homes to study such as iPad digital tablets. In this work, an interactive and didactic tool will be presented capable of offering the spatial distribution in field and power of these modes, and their behavior in confinement in the core and cladding regions, analyzing the result to provide information on their resistance to attenuations due to macrobending and other customizable features that define the information transmission capacity of the fiber, all of this unified in an intuitive graphical user interface, adapted to current equipment, and focused on professional skills. Specifically, the following methodology is proposed. Firstly, the simulation and graphical representation of the transverse electric field and intensity of the modes is proposed using MATLAB. Next, the analysis and programming of the power and/or confinement representation analysis tool will be carried out (part by core and part by cladding). Thirdly, the modal field diameter will be obtained to determine the resistance to macrobending of the fiber in the home network and its transmission capacity in home networks to offer Cloud Computing and IoT services, for example. Fourthly, the calculation and recreation of V-b curves will be considered. Finally, the coding of the GUI graphical interface will be carried out, observing the results on an iPad, for a more intuitive and attractive use for students.

Keywords: Optical Fiber, Macrobending, Telecommunication Engineering

(103) Contextual Factors for Entrepreneurship E-Learning in Primary Education in Ibagué, Colombia

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The aim of the research is to show the causal relationship between the use of ICT as educational mediators and the promotion of entrepreneurial skills in primary education in conjunction with contextual conditions. The study is conducted in the primary school institutions of Ibagué through the techniques of documentary review and survey of parents, teachers and administrators. The problem emphasizes that the lack of training in the dynamics of entrepreneurship, as part of an education policy, from an early age, to guide society towards a culture of entrepreneurship, means that efforts and resources are wasted in the implementation of programs and strategies related to entrepreneurship in populations with more advanced ages and levels of education, since personal factors such as lack of leadership, enthusiasm, creativity, ICT management, poor use of ODL, among others, do not allow the achievement of the proposed objectives. Given that entrepreneurship education is part of the formation of human capital (Kantis, Federico and Ibarra, 2018, Toca, 2010, Reinoso and Serna, 2016), in which multiple socio-cultural factors intervene, such as the use of Information and Communication Technologies ICT to promote ODL, problems of poverty, lack of family support and, assuming that educational institutions are presented as decisive actors in the promotion of an entrepreneurial culture from early ages, as expressed in the context of entrepreneurship considered in Law 1014 of 2006 (Congress of Colombia) of "Promotion of the culture of entrepreneurship", Law 2069 of 2020 (Congress of Colombia) "Whereby entrepreneurship is promoted in Colombia" and the document of the National Council of Economic and Social Policy CONPES 4011 of 2020 "National Entrepreneurship Policy", education is considered from the early stages of training, as conducive to fostering an entrepreneurial culture composed of values, habits and attitudes in students, so that when they reach their university and professional stage, they are willing to take this type of risks, detect opportunities and propose innovative, sustainable and dynamic enterprises to contribute significantly to the development of society. The main contrinution of the research is to how contextual factors related to learning are decisive in improving the relationship between entrepreneurship education, ODL and ICT management.

Keywords: primary education, entrepreneurship, e-learning

(104) The Use of ODL in the Classroom to Foster Entrepreneurial Skills in Context

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In education, the concurrence of new ICTs as mediators of teaching and learning through ODL, brings new opportunities to achieve learning objectives. that in face-to-face education show difficulties for their achievement. Consequently, it contains new pedagogical elements that facilitate closer, real and motivating environments for participants. Given these conditions, it is feasible to think of learning methodologies based on ODL, which are adapted to a new context, are inclusive for the entire population and are integrated with institutional objectives. The research shows how various actors can be systemically integrated into the entrepreneurial training process through learning strategies based on ODL. As a new curricular component, entrepreneurship is a line of learning that links knowledge, experiences, methodologies and educational strategies to develop entrepreneurial skills in face-to-face spaces, but often face-to-face learning has limitations of communication, time, space that hinder the achievement of training objectives, so other educational strategies are required to complement this type of learning. Here, the application of information and communication technologies ICT in the development of ODL, through a virtual learning environment A.V.A., which is a virtual space created with pedagogical and training orientation, to facilitate communication and interaction between students, teachers and content, adapted to the rhythms and learning abilities of the students. Using ODL, we seek to provide spaces for the formation of subjects in different stages of their lives and their training that supported by ICT, implements a new way of establishing the communicative encounter between the different actors of the process such as: entrepreneurs, family, government, institutions, which make up the entrepreneurial ecosystem. Thus, the ODL facilitates transcending from the classroom to the context for the effective application of competencies as a contribution to local development. Finally, conclusions and recommendations are presented regarding its application, its adaptations, its projection as part of an entrepreneurial ecosystem, its evaluation and improvement.

Keywords: ODL, entrepreneurial skills, classroom

(105) Case Study on AI virtual instruction models in University of Fujairah

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This study investigates the effects of learning through AI-generated virtual instructors while incorporating a unique element - the ability for students to choose their admired role model or celebrity as a personalized learning guide in terms of face and voice. We aim to assess the potential enhancements in learning outcomes and performance when employing various test scenarios: face and audio instruction of the admired role model, audio of the admired role model but different face; face of the admired model but audio different; normal (physical) instructor instruction. Our research maintains a crucial focus on preserving the student-teacher relationship by exploring ways in which AI can complement traditional instructional methods. The study also investigates the advancement of AI technology in assisting instructors and engaging students effectively. For a test sample of 105 students for a 5 minutes' class, students felt it as an interesting concept, but with a small sample and time of class, it will not be correct to say this method alone will bring drastic learning improvement. In the first instance, students were curious and highly attentive, which is evident on the result that 76% of students answered the questions correctly compared to other groups. This system can be further improved by providing body/hand gestures with AI instructors, or allowing students to customize their own AI instructor.

Keywords: Artificial Intelligence, Teaching and Learning Methodologies, Personalized learning

(106) On The İmpact of Distance Learning on Digital Citizenship Skills: Opinions of Social Studies Teachers

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In today's world, it has become an important issue for individuals to develop their digital citizenship skills and knowledge in order to fully participate and positively contribute to the digital society. In this context, digital citizenship education, which has started at the basic education level, helps individuals to understand their rights and responsibilities in the online space and develops digital literacy and critical thinking skills. In fact, digital citizenship education also encourages individuals to engage in inclusive and respectful digital interaction by increasing their sense of community in the online world. The aim of this study, which examines digital citizenship education through the lens of distance learning, is to explore the views of social studies teachers, who are digital citizenship educators, on the impact of distance learning on digital citizenship skills. In the study, based on the opinions of social studies teachers, the phenomenology model, one of the qualitative research techniques, was applied and the data was analysed using the descriptive analysis technique, as it aimed to understand their views on the impact of distance education on digital citizenship skills. A total of 8 social studies teachers working in different schools participated in the research on a voluntary basis. The interview form used in the research consists of different questions under the titles of personal information, digital citizenship education in social studies, digital citizenship skills and relationship with distance education. According to the teachers' opinions, it was found that digital citizenship skills in social studies education offered in secondary schools have developed due to the increased use of technology and that digital citizenship education can be successfully and effectively delivered through distance learning. Different opinions and suggestions were presented within the framework of the findings of the research.

Keywords: Digital citizenship, distance learning, social studies teachers.

(107) A Novel Approach To Design And Implementation Of Secure Online Election System

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As we are all aware, online election is expanding rapidly, it has boost productivity, cut down errors and increases the production of National election within a country. Voters have discovered numerous of election fraud that have occurred during manual election voting process, an excellent way to replace the manual voting is to have a secure online election system that incorporates a strong security for data protection, encryption of data using the Advanced Encryption Standard (AES) algorithm. In developing this secure online election system, it will be used for citizen of Liberia who are 18 and above including all genders, the system purpose in this paper is to develop secure system and database for data storage, the election commission officers and administrator who will oversee the voting process using the online system. With this level of security, voter data will be more secure with the use of AES encryption algorithm, a face recognition, security questions and a unique identification number generated by the system and it will give administrators the privileges to verified voter credentials and grant them access to vote, this will give access to more voters in Liberia and with the measure of security, election fraud will be reduce, and a free and fair election can be held.

Keywords: Election system, Encryption, Authentication

(108) Advancing Cognitive Justice through Technology: Exploring School-Based Support Teams' Experiences in Implementing Inclusive Early Childhood Education.

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This paper explores the intersection of technology and cognitive justice in the context of inclusive early childhood education. While existing research acknowledges the pivotal role of inclusive education in primary and secondary systems globally, early childhood education has yet to fully embrace its principles, despite available policy frameworks, learning support materials, and professional development initiatives. This study employed Social Cognitive Theory focusing on the Screening Identification Assessment and Support (SIAS) policy, to present the insights and encounters of School-Based Support Team (SBST) members in the Early Childhood Education (ECE) setting. The research, conducted in five primary schools within Tshwane South District, Gauteng, South Africa, employed a multifaceted approach, including focus group interviews with five groups of ten participants each (total 50), observations of five classes (one from each school), and document analysis. Findings revealed a notable deficiency in the early identification of learners facing learning barriers in ECE classes, leading to a corresponding lack or limited provision of support. Despite these challenges, an encouraging discovery was the positive attitude exhibited by SBST members toward implementing the SIAS policy. Within the context of "Advancing Cognitive Justice through Technology," this paper probes into the perspectives and experiences of SBST members and Learning Support Educators (LSEs) as they navigate the implementation of inclusive education in ECE classes.

Keywords: Inclusive Early Childhood Education, Inclusive Education, School-Based Support Team, Screening Identification Assessment and Support, Technology-enhanced Cognitive Justice.

(109) Efficiency of Tutorial Modes on Primary Teacher Education Students at Universitas Terbuka

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In distance learning, Universitas Terbuka (UT) offers different tutorial modes to aid students. These modes include Online Tutorial (Tuton), Webinar Tutorial (Tuweb), and Face-to-Face Tutorial (TTM), and students are required to choose one. The choice of tutorial mode can significantly impact the efficiency, effectiveness, and motivation of student learning. This study used a case study method and distributed open questionnaires via Google Forms to 200 students of the Primary Teacher Education Study Program who had participated in the three tutorial modes. The collected data were then processed using Google Forms and analyzed through comparative tables. The study found significant differences among the three tutorial modes in influencing student learning behavior. Although there were no differences in academic performance, there were differences in preferences and perceptions of students towards the three types of tutorials. Students who participated in online tutorials tended to perceive high flexibility and accessibility because they could freely arrange their study schedules and locations. Meanwhile, students who participated in webinar tutorials, although they had predetermined schedules, could still be accessed from anywhere. On the other hand, students who participated in face-to-face tutorials tended to perceive social interaction and direct guidance as more beneficial, despite the limited flexibility and accessibility. Selecting the appropriate tutorial mode is crucial in enhancing the learning experience of Elementary School Teacher Education students at Universitas Terbuka. These findings can be used to develop effective and responsive distance learning programs that meet the needs of students.

Keywords: distance learning, elearning, motivation

(110) Shifting Paradigms: Ethical Approaches and Integrity Guidelines for AI-Assisted Assessments in Learning

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As artificial intelligence (AI) becomes increasingly integrated into educational environments, it is essential to ensure that its applications adhere to ethical guidelines and maintain integrity in assessments. This study offers a comprehensive examination of how AI can revolutionize conventional assessment techniques, while maintaining fairness, transparency, and educational integrity. By thoroughly exploring responsible AI implementation, I develop fundamental principles and guidelines for incorporating AI into educational assessments that uphold and advance pedagogical objectives and ensure fairness for all learners. My investigation explores the intricacies of ethical AI, comparing responsible usage that supports educational standards with practices that could potentially undermine student equity. Emphasizing the importance of transparency, I support AI systems that clarify decision-making processes, ensuring they are understandable for both educators and learners. I advocate for the development of inclusive AI tools that can be accessed by everyone, regardless of their background. These tools should aim to support learners from diverse backgrounds and not contribute to existing inequalities. At the heart of the discussion is the integration of AI with educational goals, highlighting AI as a tool to enhance, rather than substitute, human teaching and mentorship. I present a comprehensive framework for the ethical use of AI in educational assessments, outlining strategies to promote academic integrity and innovative methods to address academic dishonesty. This framework promotes a methodical approach to assessment, incorporating AI in a way that upholds the principles of the discipline and prioritizes the learning process rather than just the end results. Illustrative application scenarios across K-12 and higher education contexts offer practical insights into implementing ethical AI in education. By utilizing various educational techniques and technologies, I showcase the ethical use of AI to improve educational practices. In addition, the significance of transparency, critical thinking, and collaborative learning in the digital age is highlighted by process tracking and peer review with GAI integration scenarios. In conclusion, I emphasize the importance of a shared dedication to ethical guidelines in AI-assisted assessments, highlighting the necessity for ongoing adaptation and learning among educators and students. This study highlights the promising potential of AI to enhance educational outcomes in an ethical manner. It also sets the stage for future investigations into how AI can impact learning in the long run and how ethical standards can evolve alongside technological advancements.

Keywords: Ethical AI Integration, Educational Assessment Innovation, Generative AI in Learning, Academic Integrity Strategies, Pedagogical AI Alignment, Educational Equity and AI

(111) Sentiment Analysis for ESP: Mining Students' Feedbacks for a Successful Teaching Process

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Sentiment analysis (SA), also known as opinion mining, is the field of study that involves employing methods from natural language processing, textual analysis, and statistical analysis to examine subjective data, including opinions, attitudes, impressions, and emotions (Esparza et al., 2017). SA has been adopted across a range of fields for years, including business and finance (Saura et al., 2019; Sun et al., 2018), politics (Groshek & Al-Rawi, 2013), health and medicine (Denecke & Deng, 2015) and entertainment (Thetet al., 2010) because of its considerable benefits in pinpointing target opinions. In educational settings, however, SA has recently started to be recognized and studied. SA has the invaluable potential to enhance the quality of the teaching practices due to its critical and practical ability to reflect students' feedback about instructors' teaching performance. SA deserves further exploration and recognition within the academic realm, especially in English for specific purposes (ESP) education. In the process of addressing the needs of ESP students, which is one of the fundamental concerns of ESP teaching (Mustafayeva, 2019; Chalikandy, 2013; Dudley-Evans & St John, 1998), SA is an effective application for providing or reshaping the appropriate methodology for ESP, which remains as a long-lasting challenge in the literature. Therefore, the purpose of this paper is to provide thorough insights into SA for ESP education, aiming to enhance the teaching practices of ESP practitioners.

Keywords: Sentiment analysis, English for specific purposes, natural language processing

(112) Risks of Open Distance Learning (ODL)

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ODL has its advantages, although there are certain risks that need to be considered. Learners may face the challenge of lack of motivation and self-discipline without constant supervision from instructors. Additionally, learners may experience socio-phobia and social isolation. The absence of physical contact with instructors and classmates can lead to feelings of loneliness, which can affect motivation and the learning process. The risks may also be of technical nature, i.e., internet disruptions, computer hardware issues, or software problems can hinder the learning process. The cornerstone of ODL is the issue of teaching quality. Some students may sense that the quality of instruction in distance learning is lower than in traditional classes, especially if instructors lack sufficient experience or training to conduct online courses. Cybersecurity and data safety are also of a significant concern. Transmitting personal data and information through online platforms can be vulnerable to cybercrime if appropriate security measures are not in place. Interactivity is a requirement for modern education in any form. In ODL, some courses may be less interactive compared to traditional educational forms, which can lead to less student engagement and may affect mastery of the subject matter. Moreover, students may have limited access to necessary resources such as books, journals, or laboratory equipment, which may only be available in physical libraries or laboratories. Also, problems with development of soft skills can be noted. Students who study remotely may feel a lack of physical interaction with instructors and classmates. They may feel disconnected from the learning environment and experience a lack of support that personal contact would otherwise be able to provide. DL offers limited opportunities for discussing material and collaborating with peers. Online forums and chats may not replace face-to-face communication, leading. One of the crucial aspects of university experience is the ability to build social connections and networks. In DL, students may miss out on this opportunity, which can negatively impact their personal and professional development. In traditional educational environments, students participate in various extracurricular activities, such as sports and cultural events, student clubs etc. In DL, this opportunity may be limited. For many students, the university is not only a place to pursue their major, but also a place of social interaction and growth. To overcome these problems, it is important to implement strategies to promote social interaction, such as organizing virtual meetings and group projects, creating online communities, and supporting interaction between students and instructors. With these risks in mind, it is important to consider strategies for their management and minimization, such as student support, teaching quality, ensuring data security, and training instructors in online course delivery.

Keywords: Open Distance Learning, socio-phobia, teaching quality, cybersecurity, soft skills, learning environment, social connections, extracurricular activities

(114) ODL Application in Entrepreneurship Training

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Learning in entrepreneurship is part of what Kantis and other authors (2022) call "Entrepreneurial human capital". This is a fundamental factor for developing a culture of entrepreneurship aimed at the development of a country. The application of ICT to learning processes, due to its familiarity with the target population, makes it possible to reach more places and populations and facilitates open and distance learning ODL. However, it is necessary to design a methodology that adapts the process of entrepreneurship and connects with Virtual Learning Environments (VLE). In this line of reasoning, the research group in Entrepreneurship and Organizational Culture ECO of the University of Tolima, proposes a 3E model consisting of 3 phases and elements that are: ENTREPRENEUR, ECOSYSTEM and ENTREPRENEURSHIP, in which ICT can be applied through a VPA containing: learning objectives, thematic content, activities, educational resources, evaluation system. The 3E Model contemplates internal aspects of Being and Doing, as well as external aspects of the context, whose interaction is facilitated with the use of the ODL, by allowing universal access to OVAs, links to sites of interest, entrepreneurship models. El ODL resulta de mayor beneficio cuando se retroalimenta de sus actores para poder actualizar y mejorar sus contenidos y recursos de aprendizaje, se puede adaptar a condiciones contextuales de lugar, tipo de emprendimiento, población objetivo, entre otros. Así mismo, permite personalizar los ritmos de aprendizaje de los participantes, al evaluar los avances individuales, para poder enfocar los apoyos y lograr mayor efectividad en el logro de los objetivos. Las conclusiones relacionan el ODL con el fomento del emprendimiento en diversas poblaciones y lugares a través del uso de las TIC. The ODL is most beneficial when it receives feedback from its stakeholders to update and improve its contents and learning resources, and can be adapted to contextual conditions of place, type of enterprise, target population, among others. Likewise, it allows to personalize the learning pace of the participants, by evaluating individual progress, in order to focus the support and achieve greater effectiveness in the achievement of the objectives. The conclusions relate the ODL to the promotion of entrepreneurship in different populations and places through the use of ICTs.

Keywords: entrepreneurship, ODL, model

(115) From Distance to Presence: How to humanize online teaching?

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Humanizing online teaching involves incorporating elements that prioritize human connection and interaction in online distance learning environments. This approach aims to create a more engaging and inclusive online educational experience for students in the digital age. In the context of online teaching, the lack of interaction between the instructor and student is a significant drawback that cannot be overlooked. Various studies have highlighted the importance of humanized online teaching by emphasizing social presence, teacher-student relationships, and creating a sense of community. Furthermore, we are all aware of the fact that transmitting information is not enough for an effective learning environment. As instructors, we should keep in mind that the students always need to be heard and valued. In this regard, humanized online teaching sheds light on a teaching context where student agency, instructor presence, and peer presence are emphasized, creating a safe zone for both instructors and students. This safe zone cultivates a sense of belonging and allows trust and empathy. In conclusion, humanizing online teaching requires a comprehensive approach that integrates technology, pedagogy, and human interaction to establish a supportive and engaging online learning environment. By addressing the challenges and opportunities associated with online education, educators can elevate the quality of teaching and learning. Taking this into account, this paper aims to provide an overview of the importance of humanizing online teaching and discuss the techniques for implementing humanized online teaching. Implications for practice are discussed.

Keywords: online learning, distance education, humanized online teaching, social presence, interaction

(116) Trends in Virtual Learning

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Recently, the trend of virtual learning has gained large spread popularity in education, and its importance of has grown immensely because of the COVID-19 pandemic. Virtual learning involves the application of digital technologies to expedite educational skills and practices and it has emerged out to be a viable alternative to traditional instruction which is often face-to-face. Consequently, the trends in virtual learning have and are continuously undergoing prominent changes. The extensive adoption of Learning Management Systems (LMS) by educational institutes has opened several new domains in teaching and learning. LMS is an application software that enables in delivery, management, and tracking the educational matters and the corresponding resources. These systems are very efficient and they can offer both the students and teachers a great deal of accessibility and flexibility to learn and also teach from anywhere and also at any time. LMS efficiently integrates multimedia content which may include images, PowerPoint presentations, audio, and video content and this ultimately makes learning interactive and engaging. Another very popular trend in virtual learning is the use of augmented reality (AR) technologies and virtual reality (VR) technologies. Both these technologies offer deep inbuilt immersive understandings that simulate real-world scenarios. Both AR and VR technologies can be used in a vivid range of subjects, from science and technology to art and history. They are also capable of providing simulations for personal training and professional development. Recently, gamification for creating learning environments has also gained popularity a lot of popularity amongst instructors and learners. Gamification includes the use of game design elements and principles in devising non-game environments in education. The use of gamified learning helps improve student motivation, engagement, and retention. This makes learning a lot more enjoyable and interactive. Another trend that is gaining a lot of popularity in virtual learning is the use of Artificial Intelligence (AI) technologies and Machine Learning (ML) technologies. These technologies can be used to personalize learning experiences, provide feedback, and assess student performance. AI and ML can also be used to develop intelligent tutoring systems that provide tailored instruction to each student based on their individual needs. Therefore, the integration of social media and collaborative tools in virtual learning is another trend. Mobile learning trends received a high level of reception since the COVID times. Video lectures, micro-credentials, microlearning, and blended learning are also some extremely beneficial virtual learning trends. Thus, it can be said that trends in virtual learning are continually evolving, and educators and learners need to stay abreast of these changes to take full advantage of their benefits.

Keywords: Virtual learning; Artificial Intelligence; Learning Management Systems; Augmented and Virtual reality; Social Media; Chat GPT

(117) Adaptive Online Learning in the Age of Generative AI: A Scaffolding Design Framework

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Providing support to learners in appropriate amounts and at appropriate times is one of the biggest challenges of meaningful learning design. When it comes to online learning environments, it is getting more and more challenging as it requires more effort and planning to put three key principles of instructional scaffolding into practice: intersubjectivity, ongoing diagnosis, and tailored assistance and fading. Yet, rapid advancements in the field of Generative Artificial Intelligence (AI) have paved the way for several transformations in terms of providing meaningful and effective scaffolding in adaptive online learning. The proposed scaffolding design framework in this paper is based on the interplay of key tenets in scaffolding, affordances of generative AI, and adaptive learning design. After extensive literature review of these areas, a scaffolding design framework that includes several design guidelines is presented. The main guiding design principles of the framework are: (a) Offer customized support by using generative AI algorithms, (b) Provide dynamic scaffolding by assessing learners' progress continuously through generative AI, (c) Structure use of AI tools as a more knowledgeable other to increase intersubjectivity, and (d) Make use of natural language processing capabilities of AI to fade scaffolding properly. Through effective use of generative AI in educational settings, computers can process learners' responses even for divergent questions, and so become more intelligent and offer more customized scaffolding to learners. Given that every learner has different prior knowledge, developing adaptive learner models through use of AI may result in building effective scaffolding mechanisms for individualized instruction in online learning. This paper discusses each of the literature-driven design guidelines and relevant scaffolding mechanisms elaborately, provides examples, and presents a design prototype. Implications and future research ideas are also discussed through the lenses of generative AI and adaptive online learning.

Keywords: adaptive scaffolding, generative artificial intelligence, online learning

(118) Exploring the Relationship Between Lifelong Learning Tendencies, Online Self-Regulated Learning Skills, and Online Learning Barriers Among Pre-Service Teachers Using MOOCs

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Abstract Skills for lifelong learning are essential 21st-century competencies in a constantly changing and evolving world. Continuous professional development is a fundamental requirement of the teaching profession. In a world where information and methods of acquiring knowledge are continually evolving, lifelong learning is inevitable for teachers. To instill the philosophy of lifelong learning as a habitual practice, pre-service teachers must internalize this mindset before embarking on their careers. Within this scope, a study examined 452 pre-service teachers who used MOOCs. It aimed to identify whether being in the high/low self-regulated learning group, lifelong learning group, branch, gender, and purposes of MOOC usage significantly impacted self-regulated learning, online learning barriers, and lifelong learning. The causal-comparative research method was employed. Hierarchical and k-means clustering analyses were performed to establish groups as high and low for self-regulated learning, online learning barriers, and lifelong learning. The study's independent variables consist of self-regulated learning, lifelong learning groups, gender, purposes of MOOC usage, and branches. In contrast, the dependent variables encompass self-regulated learning, online learning barriers, and lifelong learning. MANOVA analysis was applied to determine the impact of independent variables on dependent variables. The analysis revealed a significant effect of being in high/low self-regulated learning and lifelong learning groups on the dependent variables. The analysis indicated a significant effect of gender on the dependent variables. The study also revealed that the interaction between self-regulated learning and lifelong learning tendency groups significantly affected the dependent variables. Additionally, significant effects were found on the dependent variables for the interactions of lifelong learning group*gender, purpose of usage*gender, self-regulated learning groups*purpose of usage*gender, and self-regulated learning group*branch*gender. In light of these results, interventions such as NoteMyProgress and Learning Tracker could be incorporated into MOOC designs, which support and enhance self-regulation and its sub-dimensions. Furthermore, it is recommended to incorporate face-to-face study groups, provide learning support through scaffolding, and integrate gamification into designs to enhance motivation.

Keywords: Massive Open Online Courses (MOOC), Lifelong Learning Tendencies, Self-Regulated Learning Skills, Online Learning Student Barriers

(119) Çevrimiçi Eğitimde Öğrenen Memnuniyeti Üzerine Bir Saha Araştırması

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Çevrimiçi eğitim, günümüzde dünyada ve ülkemizde eğitimin tüm seviyelerinde kullanılmaktadır. Ülkemizde Covid 19 pandemisi ve ülkemizi derinden etkileyen 6 Şubat depremiyle çevrimiçi eğitimin sıklığı artmıştır. Özellikle pandemi, afet gibi durumlarda acil bir çözüm olması, öğrenenlerin her durumda ve koşulda katılım eğitim sürecine katılması çevrimiçi eğitimin yaygınlaşmasını sağlamıştır. Bu çalışmanın amacını; ege bölgesinde bir devlet üniversitesinde uzaktan öğretim yöntemi ile çevrimiçi ders deneyimleri olan öğrenenlerin ilgili ders ortamlarına yönelik memnuniyet düzeylerinin demografik ve teknoloji kullanım yeterlikleri bağlamında incelemek, bu doğrultuda öneriler getirmek ve kaliteli çevrimiçi öğrenme süreçlerine katkı sağlamak oluşturmaktadır. Çalışma nicel araştırma yönteminin kesitsel tarama modelinde desenlenmiş olup, çalışmada ölçüt ve kolayda örneklem yöntemi ile belirlenen öğrenenlerden çalışma kapsamında veri alınmaktadır. Çalışmanın sonucunda; ege bölgesindeki devlet üniversitesinde uzaktan eğitim yoluyla çevrimiçi ders alan öğrencilerin genel olarak ders ortamlarına yönelik memnuniyet düzeylerinin yüksek olduğu belirlenmiştir. Demografik ve teknoloji kullanım yeterlikleri açısından gruplardan bazılarında anlamlı farklılıklara rastlanmaktadır. Tüm bu ifadeler bağlamında; çevrimiçi ders içeriklerinin daha zengin ve interaktif hale getirilmesi, öğrenen-öğreten ve öğrenen-öğrenen etkileşimini artıracak çalışmalar yapılması, teknik sorunların en aza indirilmesi ve teknik desteğin iyileştirilmesi, farklı öğrenme stillerine göre farklı öğrenme materyalleri sunulması önerilmektedir. Çalışmanın bulguları ve önerileri doğrultusunda, uzaktan eğitim yoluyla sunulan çevrimiçi derslerin kalitesinin artırılması ve öğrenci memnuniyetinin yükseltilmesi için çalışmalar yapılması gerektiği düşünülmektedir.

Anahtar Sözcükler: Çevrimiçi eğitim, Öğrenen memnuniyeti, Açık ve uzaktan eğitim, Çevrimiçi öğrenme

(120) Üstün yetenekli öğrencilerin Unity platformu için hazırlayacakları 3B oyunlar için yazdıkları oyun senaryolarının analizi

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OMÜ

Oyunlar, amaçları, kuralları, ödülleri ve senaryosu gibi dinamikleri ile birlikte ilgi çekici özellikler barındırmaktadır ve bu dinamikleri sayesinde öğrenme deneyimlerine entegre edilebilmektedir. Dijital oyunlar, bir kazanımın öğretilmesi, pekiştirilmesi veya değerlendirilmesi amaçlarıyla öğrenciler tarafından oynanarak veya tasarlanarak eğitim sürecine dâhil edilebilmektedir. Tasarımcı olan öğrenciler, senaryo yazma, kodlama, problem çözme gibi farklı becerilerini ortaya koyarak ürün geliştirme süreçlerinde rol oynamaktadır. Alanyazında öğrencilerin dijital oyun geliştirmesi ile ilgili pek çok çalışmaya rastlanmaktadır. Buna rağmen akranlarına göre üstün zekâ, üstün yaratıcılık ve üstün başarı özellikleri ile tanımlanan üstün yetenekli öğrencilerle bu bağlamda yapılan çalışmalar sınırlıdır. Aynı zamanda üstün yetenekli öğrencilerin yaratıcılık becerilerini ortaya çıkarabileceği etkinlikler yapmak, bilişim teknolojileri araçlarını kullanmak, üst düzey kodlama ve tasarlama imkânına sahip olmak gibi beklentilerinin olduğu bilinmektedir. Bu çalışmada talep edilen beklentileri karşılayabilecek özellikleri olan Unity adlı oyun platformu kullanılmıştır. Bu sayede kendi yazdıkları oyun senaryolarını hayata geçirebileceklerdir. Yedi üstün yetenekli öğrenci ile yapılan çalışmada, yöntem olarak içerik analizi kullanılmıştır. Yazılı olarak alınan oyun senaryolarından elde edilen veriler analiz edilmiştir. Bulgulara göre bir oyunda bulunması gereken on temel tanımlayıcı unsurun, tüm senaryolarda yer aldığı görülmektedir. Yazılan senaryolarda, tanımlayıcı temel unsurlardan en çok zorluk, kurallar, etkileşim gibi temalar yer alırken; rekabet, fantastik araçlar ve eş zamanlı oynanan kişiler gibi temalara daha az rastlanılmaktadır. Senaryoların platform, macera ve spor alanlarında yapıldığı, yapılan kurgularda yaratıcı fikirlerin ve araçların ortaya çıktığı görülmektedir.

Anahtar Sözcükler: Unity, üstün yetenekli öğrenciler, 3B oyun tasarımı, oyun senaryoları, tasarım odaklı öğrenme.

(121) Research on Teaching Activities Facilitating the Concretization of Theoretical Abstract Concepts

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"Heat transfer" is widely applied and crucial in various industries, ranging from traditional to high-tech sectors (such as semiconductor chips, CPUs, and smartphones), as well as in engineering fields like land, marine, and aerospace transportation. However, the subject of "heat transfer" involves complex mathematical and physical concepts, making it challenging for students to grasp due to its abstract and multidimensional nature. Improving students' interest, learning effectiveness, and practical application abilities through teaching activities and the design of learning materials has become a pressing issue in educational settings. The current teaching method primarily relies on direct lecturing, where teachers systematically present relevant important knowledge based on different teaching themes and planned course content. This often results in a phenomenon known as "cramming," where knowledge is transferred unilaterally from teacher to student. Although this teaching method is structurally strong and speeds up knowledge transfer, it lacks interaction between teachers and students during the teaching process, leading to diminished student motivation and learning outcomes. Therefore, this study aims to make abstract mathematical equations tangible to enhance students' interest and learning effectiveness. By integrating teaching materials with industrial practices and computer simulations to build a bridge between theory and application, the study seeks to effectively address the challenges faced in educational settings.

Keywords: Abstract Concept; industrial practice; computer simulation

(122) Technology and Collaborative Research in Open and Distance Learning: A post-pandemic view

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Rethinking the role Open Universities in the digital age is crucial especially in the post pandemic. Numerous studies have indicated a digital divide due to limited technology access during the pandemic in education and more so in higher education. However, a post-pandemic view is also important in reference to technology for scholars engaging in research. Therefore, this paper's main objective is to explore technology and collaborative research in Open and Distance Learning (ODL) with a post-pandemic view. Additionally, the specific objective is to explore the benefits of technologies and multidisciplinary collaborative research for ODL scholars in the post-Covid-19. The methodology approach for this study involves the application of Scholarly Personal Narrative (SPN) approach and content analysis. The findings show that technologies including WhatsApp, Zoom and Teams Microsoft are beneficial in multidisciplinary collaborative research. The emerged benefits like "communication efficiency", "sharing expertise" and "knowledge transfer" are key to achieving successful multidisciplinary collaborative research. This implies that ODL scholars should fully utilize technologies to enhance multidisciplinary collaborative research towards increasing knowledge production within Africa and beyond.

Keywords: Technology, , Collaborative research, , Open and Distance Learning, , Post-Covid-19

(123) Resilient Educational Delivery: Rethinking the Role of South Asian Open Universities in the Digital Age

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In the present educational context, the Covid 19 pandemic has presented both opportunities and challenges which have transformed the face of education. The idea of resilient education, thus, forms a central concern in this specific context, wherein systemic capacity to absorb sudden future external shock is ensured. While the technology assisted learning emerged as one of the viable means to overcome the multidimensional challenges offered by the present pandemic, questions like proper usability of the educational tools, the pedagogical issues of distributed learning as well as blended learning and the challenges of providing need-based learning support services to the learners, rethinking and re-imaginative role of open universities particularly in the context of South Asia, demand critical evaluation. This paper intends to adopt the social inquiry model for analyzing the educational experiences as well as the educational delivery models adopted in select mega Open Universities of South Asia namely—IGNOU (India), Bangladesh Open University (Bangladesh), Open University of Sri Lanka and Allama Iqbal Open University (Pakistan)during the Pandemic. This paper will make an attempt to evaluate the resilience of various delivery models adopted during the time of the pandemic based on the experiences of the educators from the select open universities with the help of a structured open-ended questionnaire.

Keywords: Resilient Educational Delivery, Re-thinking, Pedagogy, Social Inquiry Model, Accessibility, South Asia, Open Universities

(124) The Metaverse and the Democratization of Education: How 3D Virtual Worlds Can Expand Access to Quality Learning in ODL

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The rapid advancement of 3D virtual worlds and the Metaverse presents a transformative opportunity for Open and Distance Learning (ODL) to address its limitations and expand access to quality education. This paper explores the potential of 3D virtual worlds to democratize ODL by overcoming geographical barriers, enhancing interactivity and engagement, and promoting personalized learning experiences. Through a comprehensive literature review, the paper synthesizes existing research on the applications of 3D virtual worlds in ODL settings. It identifies key benefits, such as immersive learning environments, collaborative opportunities, and the potential to cater to diverse learning styles. The paper also highlights the challenges of implementing 3D virtual worlds in ODL, including technical requirements, accessibility concerns, and the need for effective pedagogical integration. It emphasizes the importance of careful planning, evaluation, and ongoing support to ensure successful implementation. To address research gaps, the paper proposes a mixed-methods research approach that combines quantitative and qualitative data collection methods. It outlines a framework for investigating the impact of 3D virtual worlds on ODL learner engagement, motivation, and learning outcomes. The paper concludes by discussing the implications of the research for ODL practice and policy. It recommends strategies for integrating 3D virtual worlds into ODL curricula and pedagogy, emphasizing the need for a learner-centered approach that aligns with ODL principles. It also highlights the potential of 3D virtual worlds to promote equity and inclusion in education, making quality learning opportunities accessible to a wider range of learners.

Keywords: Open and Distance Learning (ODL), 3D Virtual Worlds, Metaverse, Democratization,

(125) Engagement Dynamics in Information Technology Education: A Comparative Analysis of Online vs. Face-to-Face Instruction

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The purpose of this study was to investigate whether taking a course online or face-to-face matters in terms of student engagement and achievement. Gender differences were also examined. The level of student engagement in an information technology course in a freshman sample from a school of education was surveyed and compared in two consecutive years where the course was taught online in the first year and face-to-face in the second year. There were a total of 129 students, 62 in the online mode and 67 in the face-to-face mode. Data were collected using a survey that included the student engagement scale as well as exams. Non-parametric analyses were used because the data showed non-normal distributions for some of the dependent variables The Mann-Whitney U test was the main form of analysis for group comparisons. In terms of gender, it has been determined that female students receiving face-to-face education lose interest in the course towards the final exams, as evidenced by the significantly lower scores of both active learning and paying attention. The result shows that teaching the Information Technologies course online can be more efficient in terms of participation and a similar performance score can be achieved with less effort. Additionally, when the mode of delivery must be face-to-face, female students need more support for greater participation.

Keywords: Student engagement and success, impact of delivery formats , gender

(126) Cognitive appraisal as a mediating effect between stress coping strategies towards adaptation to stress and psychological well-being among Chinese university teachers

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The present study will explore the mediating effect of cognitive appraisal between stress-coping strategies towards adaptation to stress and psychological well-being among Chinese university teachers. The job of university teachers often brings intensive and challenging situations and the demands of such a working environment requires the teachers to rely on various stress coping mechanism to face these challenging situations. Therefore, the present study would evaluate the extent to which cognitive appraisal mediates the correlation between the stress-coping strategies of these teachers and their impact on their psychological well-being. The present study will focus on the population of university teachers in China and collected data through a survey questionnaire. The study sample will be selected by employing a combination of convenience and purposive sampling techniques. The questionnaire will be designed to assess the stress coping strategies and their impact on the psychological well-being of the participants and the mediating effect of cognitive appraisal on this correlation. The expected findings of the study would indicate a significant mediating impact of cognitive appraisal, thus indicating that the participants who relied on stress-coping strategies, engaged in cognitive appraisal, which helped enhance their overall psychological well-being. The present will offer valuable implications for mental health professionals and educators.

Keywords: Cognitive appraisal, Stress-coping strategies, Adaptation to stress, Psychological well-being

(127) Proje Tabanlı Öğrenme Müfredatlı Endüstriyel Otomasyon Eğitim Setinin İmalatı ve Programlanması

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Küresel salgın döneminde (COVID-19) mesleki eğitimde öğrenciler, atölye derslerini uzaktan yapmak mecburiyetinde kalmıştır. Atölye dersleri uygulamalı derslerdir. Öğrencilerin bu dönemde teorik bilgiye ulaşması sağlanabilmiş fakat uygulama eğitimlerine ulaşabilmeleri verimli bir şekilde sağlanamamıştır. Bu çalışmanın amacı, uzaktan (online) ve yüz yüze eğitimde de rahatlıkla kullanılabilecek, geleneksel öğrenim metotlarının ötesinde, öğrencilere 21.yy. becerilerini de kazandırmaya odaklanmış, proje tabanlı öğrenme (PTÖ) müfredatı kullanan, endüstriyel otomasyon teknolojileri eğitimlerinde kullanılabilen yol gösterici Millî Eğitim Bakanlığı (MEB) müfredatı ile uyumlu bir eğitim setinin imalâtı ve programlanmasıdır. Set, ethernet yoluyla internete bağlanabilmektedir. Öğrenciler evlerinden sete internet üzerinden bağlanarak, setin başında duran öğretmen gözetiminde endüstriyel yazılım ve uygulamaları set üzerinde yapabilmektedir. İmal edilen eğitim setine iki farklı marka programlanabilen mantık denetleyicisi (PLC) montajlanarak farklı PLC eğitimlerinin set üzerinde verilebilmesi sağlanmıştır. Eğitim setinde, bir döner tabla ve iki adet konveyör bant kullanılarak elektropnömatik sistem yoluyla ürün ayrımı yapılabilmektedir. Eğitim setinde ayrıca motor kontrolleri, sensör uygulamaları, elektropnömatik çalışmalar, dokunmatik panel ve çeşitli PLC kontrolleri de yapılabilmektedir. Algoritma olarak özellikle Grafcet metoduna odaklanılan set üzerinde, aynı senaryoların farklı PLC modellerinde nasıl programlanacağı gösterilebilmektedir. Bu sayede farklı öğrenci grupları oluşturulabilir, uzaktan takım çalışması yaptırılabilir ve farklı PLC üzerinde grup eğitimleri gerçekleştirilebilir. Eğitim setinde, PLC yazılım bileşenleri kullanmak yoluyla, öğrencilere görsel programlama ile kendi özgün yönetsel denetim ve veri toplama yazılımları (SCADA) geliştirmesine ve deneyimlemesine de imkân sağlanmaktadır. Bu çalışma aynı zamanda PTÖ için hazırlanmış bir örnek müfredatı da içermektedir. Bu sayede tüm eğitimler set üzerinde PTÖ metoduyla verilebilmekte ve öğrencilere 21.yy. becerilerini geliştirme fırsatı da sunulmaktadır. PTÖ, yenilikçi ve süreç odaklı bir öğrenme metodudur ve MEB tarafından da desteklenmektedir. Hazırlanan müfredat, öğrenme planı ile ölçme ve değerlendirme ölçeklerini (rubriklerini) de kapsamaktadır. Sonuç olarak imal edilen setin, uzaktan ve yüz yüze verilecek endüstriyel otomasyon eğitimlerine katkı sunacağı, öğrencilere mesleki becerilerin yanında 21.yy. becerilerinin de kazandırılmasında verimli ve faydalı olacağı düşünülmektedir.

Anahtar Sözcükler: Endüstriyel otomasyon, proje tabanlı öğrenme, mesleki eğitim, PLC, hibrit eğitim

(128) Production and Programming of Industrial Automation Training Set with Project Based Learning Curriculum

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During the global epidemic (COVID-19), students in vocational education had to take workshop lessons remotely. Workshop lessons are applied lessons. During this period, students were able to access theoretical knowledge, but their access to practical training could not be provided efficiently. The aim of this study is to provide students with 21st century skills, beyond traditional learning methods that can be easily used in distance (online) and face-to-face education. It is the production and programming of a training set that focuses on gaining 21st century skills, uses project-based learning (PBL) curriculum and is compatible with the guiding Ministry of National Education (MEB) curriculum that can be used in industrial automation technologies training. The set can be connected to the internet via ethernet. Students can connect to the set via the internet from their homes and run industrial software and applications on the set under the supervision of the teacher standing in front of the set. Two different brands of programmable logic controllers (PLC) were mounted on the manufactured training set, allowing different PLC training to be given on the set. In the training set, product separation can be done via the electropneumatic system using a rotary table and two conveyor belts. Motor controls, sensor applications, electropneumatic studies, touch panel and various PLC controls can also be performed in the training set. Focusing especially on the Grafcet method as an algorithm, the set can show how to program the same scenarios in different PLC models. In this way, different student groups can be created, remote teamwork can be done, and group training can be carried out on different PLCs. By using PLC software components in the training set, students are also given the opportunity to develop and experience their own unique supervisory control and data acquisition software (SCADA) with visual programming. This study also includes a sample curriculum prepared for PBL. In this way, all training can be given on the set with the PBL method, thus providing students with a 21st century skills. Opportunities to improve their skills are also provided. PBL is an innovative and process-oriented learning method and is supported by the Ministry of Education. The prepared curriculum also includes the learning plan and measurement and evaluation scales (rubrics). As a result, the manufactured set will contribute to industrial automation trainings to be given remotely and face to face and will provide students with 21st century skills as well as vocational skills. It is thought that it will be efficient and useful in gaining skills.

Anahtar Sözcükler: Industrial automation, project-based learning, vocational training, PLC, hybrid education

(129) Examination of Pedagogical Formation Certificate Program Teacher Candidates' Digital Literacy Levels

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The information age we are in requires people to learn continuously throughout their lives, to acquire analytical thinking skills, to question, to research, to use technology effectively, to discuss, to create, to be productive, to nurture an entrepreneurial spirit, to share what they produce. Especially the COVID-19 pandemic, which has affected the whole world, has significantly increased the role of technology in education by directing education systems to digital environments. This process has shown that teachers need to continuously improve themselves to provide today's students with digital skills and to use technology effectively in lessons. Therefore, teachers' and teacher candidates' digital literacy skills are vital for the effectiveness of distance education. In this study, the digital literacy skills of pre-service teachers attending pedagogical formation certificate program were examined. In the study, which was conducted with the participation of 62 pre-service teachers with different undergraduate degrees and continuing pedagogical formation certificate program, the survey model was used. "Personal Information Form" and "Digital Literacy Scale" were used as data collection tools. The findings of the study revealed that pre-service teachers generally considered themselves as highly digitally literate. According to the gender variable, it was determined that female and male pre-service teachers had similar levels of digital literacy skills. In addition, it was observed that there was a decrease in the digital literacy level of pre-service teachers as age increased. In addition, it was found that pre-service teachers with previous online education experience had higher levels of digital literacy. As a result, this study has been an important step in understanding the digital literacy level of pre-service teachers in the pedagogical formation certificate program who come from different undergraduate fields and are involved in a common online education process. Identifying the digital skills of both teachers and pre-service teachers can help to develop strategies for the effective use of technology in education. In the future, it is important to focus on studies to increase the level of digital literacy of teachers and pre-service teachers.

Anahtar Sözcükler: Digital Literacy Levels, Pedagogical Formation, Pre-service teachers

(130) Exploring the Theoretical Foundations and Future Trajectories of Generative AI in Enhancing Open and Distance Learning

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The incorporation of generative artificial intelligence (AI) in open and distance learning (ODL) platforms is at the forefront of increased educational innovation that promises to greatly enhance learning experiences, personalization and access. Nevertheless, leading up to this point, the theoretical grounding and future trajectory of generative AI in ODL has not been well researched. The goal of this study is to explore the existing and potential applications of generative AI in education from various dimensional viewpoints including theoretical frameworks supporting the educational use of generative AI, current impact or application areas of generative AI, potential future developments, ethical considerations and current and future challenges. By service of a comprehensive literature review and theoretical review, this research will pursue an exploration of the academic and industry discourse to date on generative AI in ODL and identify and synthesize key themes fields, theories and gaps in the literature sufficient to provide a robust theoretical underpinning for both understanding and advancing the use of generative AI in education. Resultant of a speculative analysis, the research will project potential future directions for generative AI in ODL with reference to: emerging technologies; pedagogic needs and emerging technologies and policy considerations. This paper is set to contribute significantly to the field of educational technology by expanding theoretic knowledge, guiding policy and practice, and helping spread ethical consciousness regarding AI in education. It is also aimed at outlining the road map and exploring possible future ideas on how AI technologies can be responsibly and effectively employed to ensure ODL systems increasingly become more innovative, inclusive, and valuable to the learning experiences of students around the world.

Keywords: Generative AI , Open and distance learning (ODL)

(132) Exploring Cultural Variances: Emotional Intelligence and Screen Time Patterns among Libyan and Turkish Undergraduate Students

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With the increasing prevalence of intelligent technologies and their impact on open and distance education, understanding the influence of cultural factors becomes imperative. Emotional intelligence, often known as EQ, plays a crucial role in students' academic achievement, well-being, and adaptability to technological advancements. Our study aims to explore EQ and its connection with screentime patterns among undergraduate students from Libya and Turkey. We assume that cultural variance significantly influences EQ and screen time patterns. Data collection involved employing two scales: the Schutte Self-Report Emotional Intelligence Test, which is a scale used to quantify EQ from the psychological research literature (Schutte et al., 2009), and the Screen-Time Questionnaire, which is a scale to measure the intensity of general technology use through screen time (Vizcaino et al., 2019). Using a convenience sampling technique, the study's sample included undergraduate students from Libyan and Turkish cultural backgrounds, allowing for a comparative analysis of these variables within specific cultural contexts. Descriptive statistics were used to summarize the emotional intelligence scores and screen time patterns for each cultural group. Comparative analyses, implying either independent t-tests or Mann-Whitney U tests based on the normality of the data, were conducted to investigate potential cultural differences in EQ and screen time. Our results indicated that Libyan students felt more competent in regulating their emotions compared to their Turkish counterparts. Libyan and Turkish students also had significantly different patterns of screen time habits. One of the most notable is that throughout the week, Libyan students showed increased use of televisions, smartphones, and other display devices, while Turkish students showed a preference for laptops. The results of this study are expected to contribute to the field of open and distance education by shedding light on the connection between EQ and screen time patterns in different cultural contexts. Educators, policymakers, and practitioners can benefit from the findings on how culture may influence students' screen-time habits and, more importantly, their EQ. In particular, interventions can focus on improving emotional self-regulation skills. This knowledge can help build more culturally sensitive educational practices and policies that enhance student well-being, paving the way for more effective use of intelligent technologies in open and distance learning contexts. References: Schutte, N. S., Malouff, J. M., & Bhullar, N. (2009). The Assessing Emotions Scale. The Springer Series on Human Exceptionality, 119–134. doi:10.1007/978-0-387-88370-0_7 Vizcaino, M., Buman, M., DesRoches, C. T., & Wharton, C. (2019). Reliability of a new measure to assess modern screen time in adults. BMC Public Health, 19(1). doi:10.1186/s12889-019-7745-6

Keywords: Emotional Intelligence, Screen Time, Libyan Students, Turkish Students, Digital Devices.

(133) The integration of mobile learning and art education in ODL

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With the rapid progress of science and technology, open distance learning has gradually emerged, and mobile learning has become a new favorite in the field of education for its convenience, real-time and interactive characteristics. As an important way to cultivate students' aesthetics and creativity, the combination of art education and modern science and technology is particularly crucial. The integration of mobile learning and art education provides a platform for students to appreciate, learn and exchange art anytime and anywhere. Students are no longer limited by the traditional classroom and can freely explore the mysteries of art using mobile devices. This integration not only enriches the form of art education, but also stimulates students' learning interest and creativity. However, achieving this convergence will not be easy. We need to deeply study the convergence point of mobile learning and art education and explore the teaching mode and strategy to adapt to the new era. At the same time, it is also necessary to face up to technical problems, teaching quality assurance and other challenges, and actively seek solutions. This paper aims to deeply explore the integration of mobile learning and art education and analyze its influence and contribution to art education. It is expected that this study will provide new ideas for the innovation and development of art education and contribute to cultivating more talents with innovative spirit and artistic accomplishment.

Keywords: Mobile learning, Art education, CDL

(134) Overcoming Barriers to Learning in ODL

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This study focuses on the barriers faced by college students in online distance learning and ways to overcome them. Through a comprehensive analysis of a large amount of related literature and practical investigation, the main barriers to online distance learning are clarified, including the lack of self-discipline, network technology problems, and the lack of interaction. In order to overcome these barriers, college students need to cultivate self-discipline, make reasonable study plans and strictly execute them. Meanwhile, schools and teachers should provide technical support to ensure network stability and optimize the online learning platform. The analysis reveals key themes such as the importance of self-regulation, the impact of social support networks, and the role of technology in facilitating learning. In addition, it is crucial to increase teacher-student interaction and cooperation among peers. This study also emphasizes the importance of establishing a good learning environment and enhancing learning interests. The study concludes with recommendations for educators and institutions to enhance the online learning experience, emphasizing the need for comprehensive support services and adaptive teaching practices. Future research directions are proposed to further investigate the evolutionary dynamics of ODL. Thus contributing to the relevant literature, future research directions for further study of ODL evolutionary dynamics are proposed.

Keywords: Online Distance Learning (ODL), Self-Discipline in Education, Educational Technology, Online Learning Platforms

(135) Alternative Assessment for ODL: Insights from an Authentic Assessment MOOC

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The COVID-19 pandemic and the shift to emergency remote teaching and learning altered many of the rhythms of academic life, especially assessment. The emergency shift to online instruction accelerated the use of online proctoring, and escalated concerns about inclusivity and ethical use of purely online models for assessments, causing instructors and postsecondary institutions to re-evaluate their assessment methods. Furthermore, changing attitudes towards assessment has prompted the need for authentic and alternative assessment strategies. The entry of ChatGPT in November 2022 also took the postsecondary world by storm, splitting faculty between those who wished to ban its use because of the threat it poses to many traditional assessments, and those who wished to use it for legitimate academic purposes. Within this context, a need was identified to provide support to faculty in terms of authentic assessment by means of a MOOC and the development and evaluation of this course is the focus of this paper. The purpose of the MOOC on Authentic Assessment for online learning, which was facilitated by the Commonwealth of Learning, was to provide an accessible learning opportunity and to shift postsecondary assessments towards more authentic assessments, especially in digitally mediated learning environments. Aligned with the theory of constructivism and authentic assessment, the MOOC explored the changing nature of work in a digital age and the competencies and skills needed in the contemporary workplace, by focusing on assessment strategies that engage and motivate learners in the e-learning environment, as well as those assessment approaches that promote both academic integrity and deep learning. The MOOC explored the concept of learner-centred design for online assessment in higher education using short videos, open access readings, interactive forum discussions, and a learning portfolio assignment designed to model the characteristics and qualities of authentic assessments. For this research an online ethnographical approach was followed. This study provides insight on the open-licensed MOOC, focusing the following: the conceptual and theoretical underpinnings of the MOOC, an overview of the course and its components, learners' expectations and their profiles; course analytics, learning activities and experiences, as well as learner feedback. The paper concludes with recommendations for similar scalable MOOC interventions.

Keywords: Alternative assessment, MOOC development, learning portfolio, learner perceptions

(136) Evaluation in Game-Based Educational Software

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Researches which have positive contribution about effective integration of developing technologies on education make a way to new studies. One of these innovations is game based digital educational software. This software has some advantages like using in distance education, being proper for individual- own by own usage, being reproducible. Game based educational software generally is created on various kinds of game types, like strategy, adventure, puzzle etc. The entertainment side of games have an important impact on gaining learning objectives. Certainly, in order to develop an effective educational game, instructional design principal steps-for general overview- analysis, design, development, implementation and evaluation, should be taken into consideration. The main problem of this research, what kind of assessment and evaluation tools and ways can be used in "evaluation" step. The purpose of the study is to collect and classify the assessment and evaluation methods used in digital game-based researches in Turkey. Moreover, digital game-based researches apart from Turkey will be taken into consideration in order to make the classification more meaningful. In method part, the researches will be collected and will be classified according to different aspects. According to "process" classification, it can be diagnostic, formative, summative or integrated. For "application", it can be external assessment, embedded assessment and score assessment. For "human", it can be researcher assessment, teacher assessment, peer assessment and individual assessment. For "game process", it can be before game, in game, after game. As a result, in this study, evaluation types will be discussed with different categories. The classification related to the evaluation phase can be used in the development of an effective game-based digital educational software, because the researcher will be able to benefit from such a classification to answer the question of how students' performance would be evaluated.

Keywords: educational game, digital game, game assessment

(137) Developing an Open Educational Resource for Dagbani Language Learning

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Open Educational Resource (OER) development in Africa is a challenging task especially looking at issues of the platform to host the OER and skills needed to develop the content. The choice of the right platform is usually constrained by the lack of free availability of such platforms. There are a number of skills that one needs to be able to develop good quality OER some of which are to do with instructional design, curriculum development and quality assurance. This research work looks into the development of an OER for learning Dagbani for beginners. An estimated 1.17 million people speak Dagbani language in Ghana and Togo. The task to create a language OER for learning Dagbani was commissioned as part of the Open Education or a Better World 2024 project. The two-man development team proposed a beginner's online course which faced issues on; which would be the best platform to host the OER, updating of OER content to better suite online presentation, training on online course development and instructional design, learning how to use social media to market the OER and time management. Issues on ensuring that the OER content is of good quality also came up. This paper reflects on the process undertaken by the team to successfully develop the learning Dagbani OER. Even though the OER is geared towards beginners, the duo planned so as to have future expansion which will cater for the language all the way to advanced level.

Keywords: Open Educational Resource, Language learning, Dagbani

(138) Using Wikipedia as an Effective Teaching and Learning Tool for Indigenous Language Teachers

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The integration of digital tools into teaching and learning In recent years, this has become increasingly prevalent, offering teachers new opportunities to enhance teaching methods and effectively engage students. This presentation explores innovative ways of using Wikipedia as a valuable resource for teachers to promote culture and indigenous language acquisition among learners. Dagbani is a major indigenous language spoken in northern Ghana and is studied as a compulsory subject in basic schools in the region. Due to limited resources, teachers and learners of the language are faced with challenges in its pedagogy. But because Wikipedia is collaborative and widely available, educators can leverage its vast knowledge base and interactive features to improve the Dagbani language learning experience for their students. The presentation will cover a variety of methods and recommended practices for integrating Wikipedia into Dagbani instruction. Participants will learn about the revolutionary capabilities of incorporating Wikipedia into language teaching approaches, especially in situations where traditional resources are hard to come by or unavailable. It will demonstrate the advantages of using Wikipedia's user-generated content and multilingual features to produce learning materials that are specifically suited to the requirements of teaching indigenous languages. Dagbani language teachers can incorporate Wikipedia and other digital platforms as an engaging tool for collaborative learning and knowledge creation to empower their learners to take an active role in their own language learning process and develop a greater understanding of Dagbani culture.

Keywords: Wikipedia, Dagbani language, language teaching, digital learning tools,

(139) Diseño De Aplicación Web Para El Tratamiento De Datos Académicos Que Permita Generar Alertas Tempranas Sobre Retención

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El proyecto busca mejorar la usabilidad de la herramienta ADATAR en la Universidad de Córdoba, migrándola a una aplicación web accesible. Actualmente, ADATAR opera en Excel y presenta barreras de usabilidad para los docentes. El estudio emplea un enfoque cualitativo y la metodología Design Science Research Methodology (DSRM), involucrando entrevistas, diseño de UI, y pruebas piloto.

Keywords: Diseño de software, Aplicación web, Deserción académica, Alertas tempranas,ADATAR.

(140) A Review of Digital Techniques and Technologies for Designing Effective Blended Teaching and Learning of Science Subjects in Malawian Secondary Schools

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The COVID-19 outbreak paralyzed the education system not only in Malawi but globally. The situation was worsened in developing countries, where instruction is usually done in person. COVID-19 prompted schools to close for several months, impeding this mode of instruction delivery. In this context, the current study was carried out to assess some of the digital strategies and technologies utilized in the creation of efficient blended science lessons in Malawi's secondary schools. The qualitative method was used in the study. The usage of the JSTOR and Google Scholar search engines at https://www.jstor.org/ and https://scholar.google.com/, respectively, aided in the acquisition of data. The data was qualitatively analyzed utilizing patterns and thematic deduction. The study discovered that teachers continue to lack the requisite digital approaches and technology skills for effectively planning and delivering science lectures via online platforms. Face-to-face teaching has thus become the standard. This is true despite the Ministry of Education's increasing promotion of modern science teaching and learning approaches through the Equity and Quality Learning at Secondary (EQUALS) project. The study concludes that introducing ICT applications into face-to-face science classes can result in an effective blended learning strategy. The report suggests that the Ministry of Education begin securing funds for the procurement of ICT tools such as smartphones, PCs, and smart tablets, which should be distributed in secondary schools throughout Malawi. The report also advises modifying education policies that forbid students from bringing their own ICT gadgets to school.

Keywords: blended learning, digital techniques and technologies, ICT tools, online learning, science teaching and learning

(141) Technology Characteristics and Integration of CSTS while Teaching and Learning by Teachers of Selected Secondary Schools in the District of Kampala – Uganda

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Our objective for carrying out this study was to appraise and evaluate how CSTS characteristics influenced its use by teachers in teaching and learning in selected secondary schools in Kampala District. The study design was a case study. Data was collected in accordance with all ethical standards using the questionnaire method, the interview method, and the methods of evaluating documentary materials. The collected data was analyzed using regression analysis and Pearson's correlation coefficient. The study found that CSTS resource use for teaching and learning was significantly influenced by technology characteristics (r=0.792, p=0.000.05) as the predicted variance in CSTS resource adoption was 43.7%. The researchers' conclusion was that low CSTS courseware utilization into teaching and learning was largely attributed to the resource's complexity. We, therefore, recommend for improvement on all the aspects of teachers' state of preparedness, and by particularly skilling them with both pedagogical and technical skills. In addition, the implementers of secondary schools education policies, specifically Boards of Governors of secondary schools in the district of Kampala to start a cost sharing scheme with the parents to raise funds for procurement and maintenance of computer equipment.

Keywords: Cyber School Technology Solutions, Technology characteristics, CSTS use in teaching and learning,

(142) Teacher ICT Competencies and CSTS Usefulness in Instruction by Teachers in Selected Secondary Schools in the District of Kampala

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The study primarily focused on evaluating and assessing the ways in which teachers' ICT skills influence teachers' effective and efficient integration of CSTS resources into instructional practices in selected secondary schools in Kampala District. A case study design was adopted to familiarize the researchers with the question. The methods of documentary reviews, interviews and questionnaires were adopted for data collection. Data collected and analysis was performed using Pearson's correlation coefficient and regression. With an expected variance of 36.8% in the use of CSTS courseware in instruction, the study indicated that teachers' ICT competencies had a significant positive effect on the use of CSTS in instructional practice (r=0.438, p=0.0170.05). The investigators' conclusion was that teachers' lack of ICT knowledge hindered the effective and successful integration of CSTS courseware into instruction, thereby reducing its potential usefulness. Therefore, as a result of this study, the researchers suggest that the technocrats behind the development of CSTS instructional courseware should improve teachers' ICT competencies by providing them (teachers) with more opportunities for in-service ICT training.

Keywords: Cyber School Technology Solutions (CSTS) Courseware, teacher ICT competences, CSTS use, Instructional practices

(143) Drivers to Effective Open Education Resources Integration in Teacher Teaching Subjects by Secondary School Teachers of Kampala Metropolitan Districts

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This study aims to make an assessment of drivers to effective OER integration in teacher teaching subjects by secondary school teachers of Kampala metropolitan districts. This study also aims to achieve three specific objectives: i. to discover whether teachers' ICT competences of using OERs differ by teacher and teaching subject.; ii. to acetain whether available ICT resources for teachers' use of OER differ by teachers and teaching subject;.iii. to explore whether teachers' perceptions of using OERs differ by teachers and teaching subject. The study aims to confirm or refute the following null hypotheses: i. it is unlikely that there are variations in the extent of OER integration between subject and teachers. ii. science teachers are more likely to integrate OER than their colleagues in other teaching subjects.The study assumes that though Uganda has adopted the OERs as an alternative instructional methodology on the premise that; they make quality learning materials and tools accessible to all learners, anywhere, at any time, and at reduced cost, its usefulness seems to have not been realized as teaching and learning continue to follow the traditional methods of teaching which are teacher centered. Thus, this anomaly needs to be investigated and remedies designed if Uganda is to match at the same pace with other countries on the path of socio-economic transformation and development as dictated by forces of globalization. Based on previous research, Venkatesh et al., (2003)'s Unified Theory of Technology Acceptance and Use, and Davis's (1989) Technology Acceptance Model, a cross-sectional survey research design will be adopted to examine the relationships between the study variables, and the main predictor variable will be teaching subject. Both quantitative and qualitative data collection methods and tools will be employing for data collection. While selected teachers of sampled subjects in the Kampala metropolitan secondary schools will provide data via a self-administered questionnaire, key informants will provide data through an in-depth interview. For purposes of data triangulation, ratings of the documentaries will be reviewed. Multiple regression, ANOVA, Pearson's chi-square tests, and descriptive statistics will all be used to statistically evaluate the data using SPSS. This study shall adhere to various ethical positions throughout the investigation. The study will adopt the pragmatic world view as its philosophical underpinning. A more thorough comprehension of the elements influencing teachers' use of OERs could lead to higher levels of OER integration in teacher teaching subject. It will highlight the many teachers' requirements need for incorporating these materials into teaching their subjects. It will help develop strategies to lessen the difficulties teachers encounter when using OERs into their teaching.

Keywords: teachers' ICT competences ,available ICT resources ,teachers' perceptions of using OER

(144) Administrative Support and Kolibri OER Usefulness in the Teaching and Learning by Secondary School Teachers in the Kampala Metropolitan Districts

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"The study aimed to evaluate and analyze the ways in which administrative support affects teachers' usefulness of Kolibri OER in teaching and learning in selected secondary schools in the Kampala metropolitan districts. Besides, the study sought to confirm or reject the null hypothesis that "administrative support enhances usefulness of Kolibri OER in the teaching and learning". The study's independent variable was ""administrative support"" while the dependent variable was ""usefulness of Kolibri OER in teaching and learning"". To acquaint the researchers with the study question, a case study approach was taken. For data collection, the techniques of questionnaires, interviews, and documentary reviews were used, while the Regression and Pearson's correlation coefficient were adopted for data analysis. The study found that administrative support was a major factor in boosting the use of Kolibri OER since it had a low positive non-significant influence on its use in teaching and learning ($r=0.194$, with a projected variation of 25.1%).

 Basing on the study findings of this specific case, the study recommends the necessity to develop and implement an enabling policy that recognizes Kolibri OER as a viable alternative. The study also recommends the need to make the program more sustainable and less dependent on outside funding by the implementing educational institutions showing commitment in making direct investments in Kolibri OER project. It was very relevant to establish the influence of administrative support on the usefulness of Kolibri OER in teaching and learning as such knowledge would offer direction for upcoming policies, procedures, and investments in Kolibri OER specifically, as well as any other OER generally. This study recommends the need for further study to determine ways to persuade more teachers to engage with Kolibri OER more effectively given the importance of motivation in OER adoption. Additionally, it is important to determine how private and government-aided secondary schools in Uganda are now using Kolibri OER."

Keywords: Kolibri OER, Administrative Support, Kolibri Usefulness, Teaching and Learning, Kampala Metropolitan Districts

(145) Empowering Teachers' Augmented Reality Use in Education: Science Teachers' Experiences from a Workshop

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Augmented reality (AR) is a promising technology with numerous advantages in students' learning. AR can facilitate the visualisation of concepts, increase students' motivation, improve academic achievement, and enhance 21st-century skills. However, these benefits can only be achieved with teachers' effective integration of AR in the classroom. In this study, a two-day workshop (10 hours in total) in a large city in Turkey was provided to help teachers with AR integration in science education. The workshop was face-to-face and included nine sessions focusing on the theoretical and pedagogical background of AR. Additionally, the workshop included activities where teachers experienced various AR applications, prepared AR materials, and designed lesson plans. With the participation of 15 science teachers, their experiences and opinions about the workshop were the focus. Therefore, a case study was utilised through reflection diaries and semi-structured interviews. In diaries and semi-structured interviews there were questions that could help teachers reflect on their experiences and thoughts on the workshop. Thematic analysis was utilised to analyse data. According to the results, interacting with various AR applications was helpful for the teachers. Additionally, the teachers mentioned that before this workshop, they did not know there were many applications they could use in their classrooms. Furthermore, they stated the benefits of creating an AR-enhanced lesson plan, which they could integrate into their classrooms. In addition to the teachers' positive experience, they have encountered some struggles regarding applications' language, technology use, and internet connection. According to our findings, teachers are highly motivated to use AR in their teaching, yet they need to access such professional development activities more. Since teachers have limited time to explore these innovative approaches, teachers need to be provided with professional development opportunities. Therefore, more AR-focused professional development activities can be provided to teachers with workshops or continuous professional development programs.

Anahtar Sözcükler: Augmented Reality (AR), Teacher Professional Development (TPD), Technology Integration

(146) Uzaktan Öğrenmede Dijital Çelinme: Yükseköğretim Düzeyinde Bir Çalışma

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Alan yazında "Digital Distraction" olarak geçen ve dijital dikkat dağınıklığı olarak bilinen "Dijital Çelinme" kavramı; öğrenenin dikkatinin asıl odaklanılan içerikten, ortamdan aklını çelen dijital araçlara yönelmesi durumudur (Vermaat ve diğ., 2017). Uzaktan eğitim derslerinde öğrenenler, telefon, bilgisayar, tablet gibi dijital araçlarını öğrenme ortamına dahil edebilmektedir. Özellikle, uzaktan eğitim dersine kişisel bilgisayarından katılan öğrenenler, ders esnasında yanlarında telefon veya tablet benzeri dijital araçları bulundurabilmektedir. Öğrenenin derse katılım sağladığı bilgisayardan veya öğrenme ortamına dahil ettiği dijital araçlardan gelen bildirimler onun dikkatini dağıtabilmektedir. Diğer yandan dijital araçların kullanımının yaygınlaşması ile birlikte dijital bağımlılık konusu da önemli bir araştırma konusu haline gelmiştir. Dolayısıyla üniversite öğrencilerinin uzaktan eğitim derslerindeki dijital çelinme durumları ile dijital bağımlılık düzeyleri arasında bir ilişki olabileceği ve bu esnadaki dijital çelinme durumlarının, dijital bağımlılık ve akıllı telefona bağlı dikkat dağınıklık düzeylerine göre nasıl olduğunun belirlenmesi önemlidir. Bu çalışmada, üniversite öğrencilerinin dijital bağımlılıkları ile akıllı telefona bağlı dikkat dağınıklıkları arasındaki ilişki araştırılmıştır. Çalışmada nicel araştırma modellerinden ilişkisel tarama modeli kullanılmıştır. 2023-2024 eğitim öğretim yılında Ege Üniversitesi Eğitim Fakültesi'nin tüm bölümlerinden toplamda 717 öğrenci çalışmaya dahil edilmiştir. Araştırmada; ilk aşamada, içerisinde dijital çelinme durumlarına yönelik anket soruları da içeren kişisel bilgi formu, ardından "Akıllı Telefona Bağlı Dikkat Dağınıklığı Ölçeği", son olarak da "Dijital Bağımlılık Ölçeği" kullanılmıştır. Araştırmada yüz yüze, kağıt üzerinde elde edilen veriler betimsel istatistiklerden, t-testi, tek yönlü varyans analizi (ANOVA), korelasyon analizi, aritmetik ortalama, standart sapma, yüzde ve frekanslardan yararlanılarak çözümlenmiştir. Uzaktan eğitim derslerinde dijital araçlarından bildirim gelmesi durumunda katılımcıların %4'ü hiçbir zaman, %11,2'si nadiren, %22,5'i ara sıra, %38,2'si, çoğunlukla, %24,1'i her zaman dikkatinin dağıldığını belirtmiştir. Analizler sonucunda, katılımcıların dijital bağımlılık düzeyleri ile akıllı telefona bağlı dikkat dağınıklığı düzeyleri arasında anlamlı bir ilişki bulunmuştur. Dijital bağımlılık ve akıllı telefona bağlı dikkat dağınıklığı düzeyleri için, cinsiyete, bölüme, sınıfa, yaşa göre anlamlı bir ilişki bulunmamıştır. Dijital bağımlılık ve akıllı telefona bağlı dikkat dağınıklığı düzeyleri için, uzaktan eğitim deneyimini "düşük" olarak belirtenler ile "yüksek" olarak belirtenler arasında anlamlı bir ilişki bulunmuştur. Çalışmanın dijital çelinme ile ilgili alan yazına katkı sağlaması ve dijital çelinmenin önlenmesi konusunda yol gösterici olması beklenmektedir.

Anahtar Sözcükler: Dijital çelinme, Uzaktan eğitim, Akıllı telefon, Dijital dikkat dağınıklığı, Dijital bağımlılık

(147) Online Mindfulness-Enhanced Language Teaching Practices for EFL Classes

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The incorporation of mindfulness into English as a Foreign Language (EFL) teaching has experienced a significant rise, indicating a recognition of its capacity to enhance the learning atmosphere. In an era of novel technological advancements, the scarcity of accessible digital resources and scientific guidance for language teachers regarding the integration of mindfulness brings about a necessity for comprehensive materials and programs, which paved the way for the Mindfulness-Enhanced Language Teaching (MELT) Program. The MELT Program, an online mindfulness training program tailored exclusively for language teachers, furnishes teachers with a 5-week training with foci on the fundamentals of mindfulness, connection of mindfulness to second language acquisition (SLA) theories, guidance on integrating mindfulness into teaching contexts, and sample MELT practices. The MELT program was delivered online, and various materials (e.g. breathing exercises and meditation cards) and activities designed to foster language skills and areas via mindfulness-based practices were provided on MELT official website, mindfulnessinelt.com. This study presents MELT as a new instructional approach for EFL classes and aims to investigate the integration of digital MELT practices into actual teaching contexts. EFL teachers enrolled in the MELT Program used the website and digital tools to implement the MELT practices for 5 weeks in their lessons and reflected on how they integrated mindfulness practices for language teaching purposes. Participants' reflections showed that the teachers in general incorporated MELT techniques into different parts of their lessons, and they expressed favorable effects of mindfulness to enhance the language learning atmosphere. Additionally, the responses from their students underscored the overall positive reception of the mindfulness practices in EFL classrooms. This study emphasizes the significance of integrating digital mindfulness practices into language study and provides valuable suggestions for language teachers, educators, and language practitioners, highlighting the benefits of mindfulness to improve the effectiveness of language teaching and learning.

Keywords: Mindfulness-enhanced language teaching, Technology and mindfulness in English language teaching, Mindfulness-based teaching practices.

(148) Fen Bilimleri Dersinde TYS Modeli İle Ortaokul Öğrencilerinin Öğrenmeyi Öğrenme Yetkinliğinin İncelenmesi

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Amaç: Bu çalışmada Fen Bilimleri ve diğer öğretim programlarında yer alan öğrenci yetkinliklerinden öğrenmeyi öğrenme yetkinliğinin ters yüz edilmiş sınıflar modeli ile ortaya çıkarılması hedeflenmiştir. Ortaokul 8.sınıf öğrencilerinden deney grubuna fen bilimleri dersinde TYS modeli ile ders işlenerek öğrencilerin öğrenmeyi öğrenme yetkinliği incelenmiştir. Yöntem: Araştırmanın çalışma grubunu, 2019-2020 Eğitim-Öğretim yılında, İstanbul Pendik ilçesinde bulunan bir ortaokulun 8.sınıfında öğrenimine devam eden deney grubu 27 ve kontrol grubu 26 olmak üzere toplamda 53 öğrenci oluşturmaktadır. Araştırmada veriler nicel ve nitel yöntemler çerçevesinde toplanmıştır. Araştırmanın nitel verileri ön görüşme, son görüşme ve öğrenci günlüklerinden; nicel veriler ise Karademir ve Derin (2020) tarafından bu araştırma kapsamında geliştirilen "Öğrenmeyi Öğrenme Yetkinlik Ölçeği" ile toplanmıştır. Nicel verilerin analizinde bağımsız örneklem t-testi (ön test son test yarı deneysel desen) kullanılmıştır. Nitel verilerin analizinde ise içerik analizi kullanılmıştır. Bulgular: Araştırmada elde edilen nicel bulgular incelendiğinde, kontrol grubu için uygulamadan önce ve uygulamadan sonra ortaokul 8.sınıf öğrencilerinin Öğrenmeyi Öğrenme Yetkinliklerinin ön-test ve son-test puanları arasında anlamlı farklılık saptanmamıştır. Deney grubunun ise uygulamadan önce ve uygulamadan sonra gerçekleştirilen Öğrenmeyi Öğrenme Yetkinliklerinin ön-test ve son-test puanları arasında son-test lehine istatistiksel olarak anlamlı bir farklılık saptanmıştır. Araştırmanın nitel bulguları incelendiğinde ise, TYS modelinin Fen Bilimleri dersinde uygulanmasına yönelik düşüncelerinin olumlu olduğunu belirtmişlerdir. Öğrencilerin ön görüşleri doğrultusunda teknoloji kullanımı, evde video ders izleme, derslere katkı, video ders izlerken iletişim kurma, Fen Bilimleri dersi ünite seçimi, video içeriği oluşturma, okulda etkinlik ödev, okulda grupla veya bireysel çalışma, yöntem hakkında düşünceler olmak üzere dokuz ayrı temada görüş belirtmişlerdir. Deney grubu öğrencilerinin son görüşleri doğrultusunda yöntem hakkında düşünceler, öğrenmeyi öğrenmeye katkısı, akademik başarıya katkısı, avantaj ve dezavantajlar, yöntemi uygulama isteği, diğer ünitelerde uygulama, diğer disiplinlerde uygulama olmak üzere yedi farklı temada görüş belirtmişlerdir. Ayrıca deney grubu öğrencileri altı haftalık süreç esnasında öğrenci günlüklerinde görüşlerini belirtmişlerdir. Sonuç ve Tartışma: Araştırmanın nicel bulguları sonucunda deney grubunun ön test ve son test puanları arasında istatistiki olarak son test lehine anlamlı bir farklılık olduğu görülmüştür. Nitel veriler sonucunda ise tüm grupların ön görüşlerinin TYS modelini olumlu buldukları, deney grubu öğrencilerinin öğrenci günlükleri ve son görüşmeden toplanan verileri sonucu TYS modelini olumlu buldukları görülmüştür. Ayrıca deney grubu öğrencileri TYS modeli ile kendi kendine öğrenebildiklerinin farkına vardıklarını belirtmişlerdir.

Anahtar Sözcükler: Ters Yüz Edilmiş Sınıf, Ters Yüz Sınıf Modeli, Öğrenmeyi Öğrenme Yetkinliği, Öğrenmeyi Öğrenme Yetkinlik Ölçeği, Öğrenmeyi Öğrenme, Fen Bilimleri Dersi

(149) Practice of implementation virtual laboratories of STEM education in Ukraine

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The modern technological world needs more and more STEM specialists. Robotics, virtual and augmented reality, 3d modeling and printing are not only areas of specialist training, but also means for studying natural and mathematical disciplines. With the help of such means, the complex laws of physics and chemistry become more understandable and accessible. But limitations in education (lack of equipment, pandemics, martial law in Ukraine, etc.) lead to the search for modern technologies to conduct classes at a high methodological and scientific level. Virtual laboratories provide students with the opportunity to interact with virtual objects, perform experiments and observe the obtained results. Among the variety of computer programs and simulators at home is an online platform that provides access to a virtual laboratory through a web browser. They consist of a set of built-in tools, simulators and virtual experiments that students can use to learn the concept of science and mathematics education and conduct practical work. Simulators and virtual laboratories (Labster, PhET, VLab, ChemLab, etc.), which are adapted for professional education, are educational centers where the scenario of the sequence of actions is clearly defined. Using them getting: - instant feedback during experiments; - the possibility of modeling and visualization of complex processes with reproduction of the laws of the real world; - to automate the action sequence algorithm with further use of the acquired skills in real laboratories; - the possibility of multiple repeatability of the experiment, taking into account errors (allows an economical approach to the use of consumables and the wear resistance of complex, expensive equipment); - the opportunity to learn at any time and in any place, forming your own (individual) learning trajectory; - feel like a real experimenter in the conditions of a virtual laboratory with the effects of augmented reality. At the same time, the duration of simulations does not overload the attention of students, allows students to build their own understanding of what they are learning through their own experience, and not passively "absorb" their information.

Keywords: STEM, virtual laboratories, simulators

(150) Exploring Students' Perspectives on Online Teaching During the COVID-19 Crisis

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The COVID-19 pandemic necessitated an abrupt transition to online learning, presenting a unique opportunity to investigate students' perspectives on this educational paradigm shift. This study aimed to explore the experiences and perceptions of primary school students regarding online teaching during the crisis. Two hundred students participated in the survey which was conducted by computer science teachers in the period from April to May 2023. Findings revealed a multifaceted array of experiences characterized by both challenges and opportunities. Students expressed initial enthusiasm for the flexibility and convenience offered by online learning, highlighting the ability to manage their own schedules and access a wide range of digital resources. However, the absence of face-to-face interaction emerged as a prominent challenge, with many participants lamenting the loss of social connection and engagement with peers and instructors. Moreover, the digital divide emerged as a significant barrier, disproportionately affecting students from socioeconomically disadvantaged backgrounds. Limited access to technology and reliable internet connectivity hindered their ability to fully engage in online classes, exacerbating existing educational inequalities. Despite these challenges, students identified moments of growth and adaptation throughout their online learning journey. They described developing newfound skills in self-discipline, time management, and digital literacy, which they perceived as valuable assets for navigating the demands of the 21st century. In conclusion, this study provides valuable insights into the complex landscape of online teaching during the COVID-19 crisis from the perspective of students. The findings underscore the importance of addressing digital inequities and designing online learning environments that prioritize social interaction and student engagement. As educational institutions continue to navigate the uncertainties of the post-pandemic era, these insights can inform the development of effective strategies to support student learning and well-being in an increasingly digital world.

Keywords: online teaching; ICT; COVID-19; primary education; students

(151) Kimya Öğretmen Adaylarının Web 2.0 Araçlarına Yönelik Farkındalıklarının İncelenmesi

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Ülkemizi de içine alan Covid-19 pandemisi ile başlayan ardından geçtiğimiz yıl yaşanan depremler sonrasında eğitim-öğretim faaliyetleri neredeyse son dört yıldır ihtiyaç duyulan dönemlerde aktif olarak uzaktan yürütülmektedir. Bu süreci daha etkin kılmak da öğretmenlerin öğretim teknolojileri anlamında yetkin olması ile ilişkilendirilebilir ve beraberinde öğretmen/öğretmen adaylarının bu anlamda ne düzeyde olduklarını da düşündürmektedir. Mevcut çalışma kapsamında kimya öğretmen adaylarına odaklanılmış ve katılımcıların Web 2.0 araçlarına ilişkin farkındalık düzeylerinin incelenmesi amaçlanmıştır. Çalışma nitel bir anlayışla ülkemizin batı bölgesinde bulunan bir eğitim fakültesinin kimya öğretmenliği anabilim dalında öğrenim gören 62 öğretmen adayı ile 2023-2024 eğitim öğretim yılının bahar yarıyılında yürütülmüştür. Öğretmen adayları ilgili programda iki, dört, altı ve sekizinci yarıyıla devam etmektedirler. Çalışmada veriler araştırmacı tarafından geliştirilen açık uçlu sorular yoluyla Microsoft Forms üzerinden hazırlanan bir görüş formu ile toplanmıştır. Elde edilen verilerin analizinde içerik analizi kullanılmıştır. Çalışmadan elde edilen bulgular incelendiğinde öncelikle katılımcıların yarısından fazlasının Web 2.0 araçlarını daha önce duydukları; başta Kahoot, Canva, Quiziz ve Google Forms olmak üzere birçok araçtan haberdar oldukları belirlenmiştir. Bu araçları Web 2.0, Kimya Eğitiminde Materyal Tasarımı, Bilişim Teknolojileri gibi dersler kapsamında tanıdıklarını ifade etmişlerdir. Ek olarak alan ve alan eğitimi derslerinde de bu araçların ölçme aracı olarak, araştırma yapmak gibi amaçlarla kullanıldığını ifade ettikleri belirlenmiştir. Son olarak Web 2.0 araçları kullanımının avantaj ve dezavantajlarına yönelik görüşleri incelendiğinde en çok öğrenmeyi kolaylaştırması, bilgiye daha hızlı ulaşmayı sağlaması, çağdaş öğretmen olmaya katkı sağlaması ve ders içeriğini daha dikkat çekici kılması sebebiyle avantajlı olduklarını düşünmektedirler. Öte yandan katılımcıların büyük bir kısmının herhangi bir dezavantajı olmadığını düşünürken bazıları da her öğrenci/okulun eşit teknolojik donanıma sahip olmaması nedeniyle bilgiye erişim sağlayamayabileceği, her zaman ulaşılabileceği için öğrenin bilgiyi akılda tutma mecburiyetini ortadan kaldırabileceği gibi riskleri de olduğunu belirtmişlerdir. Çalışma sonunda öğretmen adaylarını Web 2.0 araçları konusunda hem bilgiye hem de deneyime sahip oldukları belirlenmiştir. Ancak Web 2.0 araçlarının özellikle Kimya eğitimi açısından mikro-makro-sembolik boyutlar arasındaki geçişte sahip olabileceği potansiyel avantaj ve dezavantajlar konusunda daha fazla desteğe ihtiyaç duydukları söylenebilir ve Kimya eğitimcilerinin bu anlamda öğretmen adaylarıyla bilgi paylaşımı yapmaları önerilebilir.

Anahtar Sözcükler: Web 2.0 araçları, kimya öğretmen adayları, kimya öğretimi

(152) An Evaluation of the EFL Coursebook 'English File-Intermediate' from the Perspectives of the Students and Instructors

Ferdane Denkci Akkaş

İlknur Saydam

This study aims to evaluate the "English File-Intermediate" coursebook, which is included in the English Preparatory curriculum of a public school, according to the views of the students and instructors using this book in their classes. This is a descriptive study planned as a mixed methods research. In the quantitative part, the opinions of 111 students and 17 lecturers on the English textbook were obtained by means of the Textbook Evaluation Questionnaire developed by Öz (2019). The qualitative data were collected through four open-ended questions given under the questionnaire answered by the same number of participants, as well as the adapted versions of 11-question semi-structured interview forms prepared by Öz (2019) from 8 students and eight instructors. For the quantitative part of the study, the data obtained with the questionnaires were analyzed on the SPSS software through descriptive statistics. The qualitative data were analyzed with descriptive content analysis. In the end, it was found that the participants were generally satisfied with the coursebook. Many participants found the topics, grammar and vocabulary teaching, design and illustrations, activities, and skill teaching effective, but the majority stated that writing skills should be supported and gave negative feedback on the accessibility of the book and its price. However, most instructors stated that the coursebook served their purpose and that the teacher's book was found useful. As recommendation, other studies focusing on the effects of contextual factors on the evaluation of the coursebook might provide different perspectives regarding such factors as private versus state institutions or programs with a modular, periodical, or yearly plan. Also, the opinions of different student groups can be checked to see if their gender, level, department, or age make any difference in terms of the results.

Keywords: Instructional materials, EFL materials, coursebook, coursebook evaluation, post-use evaluation.

(153) Security Analytics: An Approach to Ensure Cybersecurity through Learning Analytics

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Open and distance learning (ODL) systems that offer interactive learning environments are open systems where multidimensional data flows occur. Although these data are used to improve learning processes, they also represent very rich sources for various security threats. Learning analytics, which supports learning processes by making sense of big data in the system, involves analyzing the data of individuals and components of the relevant process. Similarly, security activities in the system deal with monitoring the data that is produced in the learning environment. In this study, a security analytics structure for the effective use of learning analytics (LA) and cybersecurity (CS) approaches on a common ground is discussed. In this context, academic studies that include both LA and CS topics were examined. The findings showed that LA was used to monitor security activities and practices in CS training. In light of these findings, it was concluded that LA techniques may support the general security activities of the ODL systems. Finally, suggestions were made for what purposes and in which processes LA techniques can be used in CS activities.

Anahtar Sözcükler: Open and distance learning, learning analytics, cybersecurity, security analytics

(154) The Impact of Work-based Learning on Engineering Education in Response to COVID-19: A Case Study of the Iron Range Engineering Program

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The COVID-19 pandemic necessitated rapid adaptations in higher education, compelling institutions worldwide to swiftly transition to remote teaching methods. This transition was particularly challenging in STEM (Science, Technology, Engineering, and Mathematics) disciplines, where hands-on learning and laboratory work are integral curriculum components. In response to this challenge, a Work-Based Learning (WBL) model emerged in Minnesota as a promising approach to remote education. Iron Range Engineering (IRE), situated in Minnesota, has gained recognition for its innovative approach to engineering education, notably its successful integration of WBL into its curriculum. This integration has enabled students to gain practical, real-world experiences, even in a remote learning environment. The effectiveness of IRE's WBL adaptation played a pivotal role in establishing the Minnesota Polytechnic and Applied Learning Institute (MinnPoly), which seeks to enhance the adaptability and accessibility of higher education. Minnesota State University, Mankato's MinnPoly was established to extend the successful WBL model into other disciplines and interdisciplinary fields of STEM to support the dynamic and constantly evolving technological landscape in a global economy. This paper draws upon the insights from the Collaborative Engineering Education in the Digital Age (CEEDA) Case Study to evaluate IRE's response to the challenges posed by the COVID-19 pandemic by transitioning to online learning with the WBL approach. The study analyzes the implementation process of WBL and assesses its outcomes to ascertain its efficacy in engineering education. Furthermore, it sheds light on how the successful use of the WBL model in engineering education at IRE has inspired MinnPoly to use the WBL model to develop new integrated STEM degrees, which aim to provide flexible and adaptable learning experiences not only to effectively respond to rapid changes and uncertainties that we saw during the pandemic but also to meet the evolving needs of the industry and workforce, thereby creating skilled employees.

Keywords: Work-Based Learning, STEM Education, Distant Education, COVID-19 Pandemic, Engineering Education, Higher Education Transformation, Technology, Learning Theory

(155) XR4HRC Project: Training and Evaluation Approaches for Human-Robot Collaboration with Extended Reality

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Extended Reality (XR) technology holds significant transformative potential in the fields of education and industry, yet current training methodologies fall short in understanding robotic systems and human-robot interaction. These approaches often focus on theoretical knowledge while neglecting practical application and real-world experiences, creating a gap that hinders the workforce's effective operation with robotic systems. The XR4HRC project, funded by the European Union's Horizon Europe research and innovation action program through the XR2Learn Project and conducted in collaboration with Lider Teknoloji Geliştirme (LTG), BEST Institut für berufsbezogene Weiterbildung und Personaltraining GmbH (BEST), and Eskişehir Osmangazi University Smart Factory and Robotics Laboratory (IFARLAB), aims to apply XR-based training and evaluation methods to industrial robotic systems. The project seeks to enhance users' learning experiences and provide them with opportunities to practice in realistic industrial scenarios. Particularly equipped with Virtual Reality (VR) and Augmented Reality (AR) applications centered around the operation of the Kawasaki RS005L robotic device, this approach is aimed at improving the quality control and robotic system management skills of both students and industry workers. In this context, three tailored training and evaluation scenarios have been designed: (i) Health and Safety Protocols, (ii) Orientation, and (iii) General Maintenance of Robotic Systems. Participants will be able to complete these training and evaluation scenarios independently, and instructors will also be able to facilitate the remote evaluation process by sharing the same session during the evaluation, thus enabling student evaluation through remote collaboration. The VR module allows users to interact with virtual robotic systems through interactive scenarios created using the Unity platform and the INTERACT plugin, while the AR module enhances training by visualizing virtual information in a real laboratory environment, enriched using Meta's XR SDK. This integration facilitates users' understanding of the physical-world counterparts of actions performed in a virtual environment, deepening the learning process and enhancing operational skills. Furthermore, the use of devices like the Meta Quest 3, with its advanced processor performance and high-quality sensor capacity, maximizes the efficiency and interactive experience of such training scenarios. The XR4HRC project supports Europe's Industry 5.0 vision by advancing training and evaluation methodologies in the fields of extended reality and human-robot collaboration.

Keywords: Extended Reality (XR), Human-Robot Collaboration (HRC), Virtual Reality (VR), Augmented Reality (AR), Meta Quest 3, Unity, INTERACT, Industry 5.0, Training, Evaluation, Operational Skills Development

(156) Toward a connectivist teaching method and its graphic language to design learning activities.

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Since the beginning of this century (Siemens, 2005; Downes, 2005), connectivism has been presented as a new learning theory adapted to the digital world of the 21Ist Century. Connectivism is characterized by a digital network context, self-direction in choosing the content to learn, and the equivalence of actors and resources during the process. Learning occurs within the connections. While connectivism provides a deep and significant learning experience, it has undergone numerous criticisms, such as differences with other social theories, particularly in terms of epistemological background (Kop and Hill, 2008), and a lack of evidence and empirical data to support the theory (Hendricks, 2019). In this context, it is difficult for educators to plan and to assess learning activities within a formal structure. Connectivism is about learning, not teaching. We propose here to define a connectivist teaching method through specific graphic planning of learning activities. On one hand, the theory of transactional distance is very useful in describing the process of online learning. This theory has a history in therapy, literacy, leadership, and distance education (Moores, 1994). On another hand, connectivism is based on an analogy with neural networks (Downes, 2022; Duplàa, 2023). Inspired by the formalisms of transaction and of synthetic neural network, we propose a graphic language to design connectivist learning situations for educators. We illustrate traditional and connectivist learning activities from the literature with this graphic language. In conclusion, we discuss assessment in connectivist learning. Downes, S. (2005, December 22). An introduction to connective knowledge. Stephen's Web. http://www.downes.ca/cgi-bin/page.cgi?post=33034 Downes, S. (2022). Connectivism. Asian Journal of Distance Education, 17(1). Duplàa, E., Crettenand Pecorini, B., Weber, J. et Blouin, M. (2023). L'apprentissage en ligne dans le contexte de la 4e révolution industrielle : le cas d'un module connectiviste en contexte universitaire. Journal Canadien de l'Apprentissage et des Technologies. 49(1). 1-21. Hendricks, G. (2019). Connectivism as a Learning Theory and Its Relation to Open Distance Education. Progressio South African Journal for Open and Distance Learning Practice. December 2019. Kop, R. and Hill, A. (2008). Connectivism: Learning Theory of the Future or Vestige of the Past? The International Review of Research in Open and Distributed Learning 9(3). 1-13. Moore, M. (1997). Theory of transactional distance. In D. Keegan (Ed.), Theoretical principles of distance education (pp. 22–38). New York: Routledge. Siemens, G. (2006). Knowing Knowledge. Auto-Edition Lulu.

Keywords: Connectivism, teaching method, language graphic, instructionnal design.

(157) AI-Supported Assessment Systems in Open and Distance Learning: Current Practices and Future Directions

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For all educational levels, evaluation plays a critical role in determining the effectiveness and efficiency of educational processes. At the end of the evaluation process, feedback can be received on the effectiveness of all components of the system, such as teaching materials, teaching strategies, learner support services, and measurement activities, as well as feedback on the achievement of the targeted learning outcomes. Feedback received as a result of evaluation activities enables improvements to be made throughout the system. Evaluation is an indispensable tool for all stakeholders in open and distance learning systems. In open and distance learning systems, artificial intelligence-supported assessment applications offer various advantages over the traditionally operated assessment process. These systems provide personalized learning environments by evaluating learner performance in more detail, providing learner-specific feedback, and identifying the learner's strengths and weaknesses more precisely through large and diverse data analysis. The automatic evaluation and rapid feedback feature of artificial intelligence-supported assessment systems accelerates the learning process by providing instant feedback to students. In addition, these systems allow academic and administrative staff responsible for learning and assessment to allocate more time and energy for larger groups of learners, increasing the opportunity to provide individualized and quality teaching environments for learners. These advantages have the potential to make open and distance learning processes more effective and efficient. Automating services such as monitoring and reporting learner performance, evaluating system quality and management processes can reduce the burden on management staff. This allows managers to focus on more strategic tasks and work more effectively on learner achievements. This paper will seek to answer the following three research questions through a systematic literature review: - How have publications on AI in the evaluation of open and distance education developed over time, in which journals have they been published, what is their geographical distribution, and what are the disciplinary affiliations of the authors? - How is AI conceptualized in the evaluation of open and distance education and what kind of challenges/risks are considered? - What is the nature and scope of AI in assessment practices in open and distance education? A systematic literature review is determined as the method of this study in order to reveal the current applications of AI-supported assessment systems in open and distance learning systems through academic studies, to see how AI-supported assessment processes have changed and developed over the years, and to reveal the place and importance of AI-supported assessment studies in the open and distance learning process.

Keywords: assessment, distance education, artificial intelligence, systematic review

(158) Integrating Blended MOOCs as Performance Tasks in EFL Classes: A Case Study

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The blended Massive Open Online Course (bMOOCs) model, known as BlendedMOOC, is a form of flipped classroom that combines online learning with in-person class sessions for discussions and activities. This model's integration as performance tasks in K-12 English as a Foreign Language (EFL) classes in Türkiye is relatively new. This research aims to examine the integration of the BlendedMOOC model as performance tasks in 9th-grade EFL classes at the K-12 level. A case study approach was used in this study, involving 41 students with no prior experience with BlendedMOOC. A relevant course from the FutureLearn platform, aligned with the curriculum objectives of the specific class, was selected and integrated as a performance task. After completing the course, students took a face-to-face exam related to the course content and designed a virtual poster. They were then assessed based on their performance task and exam results. Statistical analysis of performance task scores was conducted, and student feedback regarding the study was gathered. The analysis, conducted through content analysis revealed the contribution of the study to the development of language skills. This study suggests that similar practices in performance tasks could contribute to future EFL classes in K-12 settings.

Keywords: K-12, Performance task, Blended MOOCs, bMOOCs, EFL.

(159) Is ChatGPT Good in Enhancing Assessment? A Preliminary Study

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This study investigates the effectiveness of ChatGPT in enhancing assessment, particularly for essay writing. Specifically, we investigate whether ChatGPT can accurately assess student answers and reduce the time required for assessment compared to human grading methods. To conduct our study, we analyze a sample of student papers from the Cambridge exams in essay writing, assessing them according to the guidelines provided in the mark scheme. We then compare the assessment of these papers by human teachers with the assessment generated by ChatGPT, utilizing prompt designs. Our analysis focuses on two key aspects: the accuracy of assessment and the time required for evaluation. Preliminary findings indicate that ChatGPT demonstrates promising accuracy and reduction in time in assessing student answers, comparable to assessments by human teachers based on the Cambridge examiner reports. These results suggest that ChatGPT holds the potential as an efficient and effective tool for enhancing assessment practices in educational settings. This study contributes to the ongoing discourse on the role of AI in education and provides insights into the implications of integrating ChatGPT into assessment processes.

Keywords: AI, Prompt Designs, Assessment, ODL

(160) Development of Agavi: an Adaptive Learning System for building innovative experiences offline

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The COVID-19 pandemic demonstrated the need to provide more effective ways of learning that motivate young students outside the classroom. However, many Adaptive Learning System platforms are internet-dependent, complex to understand, and rigid in terms of the type of content students can interact with. As a result, there is a limitation and stifling of students' interests, particularly in exploring the natural world. The aim of this project is to develop the mobile system Agavi, an Adaptive Learning System that can be used offline, with a teacher-friendly approach focused on easy-to-use blocks (text, images, GPS, temperature sensor) that also provide actionable analytics data, enabling the teacher to not only design activities that use students' physical space, but also precisely identify and allow intervention where students' difficulties are present. We will demonstrate the design and operation of the system.

Keywords: Adaptive Learning System, Actionable Analytics Data, Innovative Adaptive Learning System approach

(161) Fostering a Community of Inquiry in Distance Education to Mitigate Transactional Distance: A Need Analysis

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With the escalating demand for distance education, addressing the challenges posed by transactional distance has become crucial. Transactional distance (TD), conceptualized by Moore, encompasses the psychological and communication gaps between learners and instructors in distance learning environments. Community of inquiry (CoI), a framework proposed by Garrison et al., focuses on promoting three constituents of a sense of community: cognitive, social, and teaching presences among learners. Within this respect, it is of utmost importance to design a CoI-based online learning environment in distance education settings to minimize transactional distance. This study aims to unveil distance learners' perceptions, preferences, and challenges in online learning environments concerning a sense of community and its effect in those settings. The very first step of the study is conducted through the observation of a distance graduate course with a follow-up needs analysis through two independent scales (CoI and TD scales) and interviews. By pinpointing areas where TD obstructs engagement, this needs analysis lays the groundwork for tailored CoI interventions in online learning environments. Insights gathered through this analysis not only will shape pedagogical strategies, but also foster a more supportive online community, ultimately optimizing learning outcomes and improved student engagement in distance education settings. The results of the current study will serve as a ground for the implementation of an online (graduate) course designed through the CoI framework principles, and the data gathered throughout this process is anticipated to provide empirical evidence on the impact of CoI interventions in alleviating transactional distance and enhancing the quality of distance education experiences to the ongoing discourse.

Keywords: community of inquiry, transactional distance, distance education

(162) A Recently Renowned Pedagogy "Translanguaging" : through the Lens of Turkish ELT Students

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This study aimed to identify and evaluate Turkish ELT students' perceptions of a recently popular pedagogy "translanguaging" at a university in Turkey. General screening model was employed in this descriptive study and data was obtained via a background questionnaire and a survey comprised of four sub-domains. 74 participants whose ages ranged from 18-22 took part in the study. Data was analysed through descriptive statistics and frequency analysis in SPSS. The results revealed that ELT students' perceptions of translanguaging was positive in general ($\bar{x}$=3.67), and also in all sub-domain of the survey which are "the practice of translanguaging" is ($\bar{x}$=3.86), "the use of translanguaging within social settings" is ($\bar{x}$=3.78), "the use of translanguaging in higher education" is ($\bar{x}$=3.57) and "the use of translanguaging for L2 learning" is ($\bar{x}$=3.55). Based on the results, it was concluded that translanguaging was not seen by the participants of the study as confusing, as a disrespectful practice or a symptom of limited proficiency in the L2. Rather, they regarded it as a natural technique and a common social behaviour, and stated that instructors should use translanguaging and that it was beneficial for learning a new language.

Keywords: English Language Teaching, Translanguaging pedagogy, linguistic resources, bilingualism, multilingualism, code-switching, code-mixing

(163) Öğretmenlerin Yapay Zekâ Uygulamalarına Yönelik Endişelerinin Kullanım Niyeti Üzerindeki Rolü: Bir Saha Araştırması

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Enformasyon ve iletişim teknolojilerindeki hızlı değişimler, eğitim ortamlarında da yenilikçi yaklaşımların benimsenmesine yol açmaktadır. Yapay zekâ (YZ), eğitimde öne çıkan bu yeniliklerden biri olarak, etkili, verimli ve çekici öğrenme ortamları sunma potansiyeline sahip olmaktadır. YZ uygulamalarının eğitimdeki faydaları birçok araştırmada ortaya konulurken, bu uygulamaların benimsenmesinde öğretmenlerin tutumlarının ve kaygılarının kritik bir rol oynadığı vurgulanmaktadır. Dolayısıyla yapay zekâ uygulamalarıyla ilgili eğitim ortamlarının önemli aktörlerinden biri olarak öğretmenlerin tutumlarını ve kaygılarını belirlemenin, söz konusu uygulamaların eğitim ortamlarında benimsenmesinde önemli olduğu değerlendirilmektedir. Nicel araştırma yönteminin ilişkisel tarama modelini kullanan bu çalışmada, öğretmenlerin bir eğitim ortamı olarak sınıflarında yapay zekâ uygulamalarını kullanma niyetleri üzerinde söz konusu uygulamalara ilişkin kaygı düzeylerinin nasıl bir etkiye sahip olduğunun tespit edilmesi amaçlanmaktadır. Çalışmada amaca yönelik örnekleme yöntemi kullanılarak Eskişehir İl Milli Eğitim Müdürlüğü'ne bağlı devlet okulları ile özel okullarda görev yapmakta olan yeterli sayıda öğretmene ulaşılacak olup, çevrimiçi anket aracılığıyla araştırma verileri toplanılacaktır. Elde edilecek bulgular vasıtasıyla yapay zekâ uygulamalarının eğitimde başarılı bir şekilde benimsenmesinin önündeki potansiyel engellere ve çıktılara ışık tutabileceği düşünülmektedir. Zira öğretmenlerin kaygıları ile yapay zekâ uygulamalarını K12 eğitimi bağlamında kullanma niyetleri arasındaki bağlantı ortaya konularak, onların bu yenilikçi uygulamaları benimsemelerinin sağlanabileceği ve eğitim ortamındaki faydalarını en üst düzeye çıkarmalarının desteklenebileceği değerlendirilmektedir.

Anahtar Sözcükler: Yapay Zekâ, K12, Yapay Zekâ Kaygısı, Kullanım Niyeti, Eğitimde Yapay Zeka Kullanımı

(164) Preferences of Pre-service Mathematics Teachers for the Use of Technology in Teaching Process

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Technology is becoming an integral part of our lives in many areas, from daily routines to communication, from socialization to personal development in the 21st century, also known as the Information Age. Technological changes and developments, which add a new dimension to accessing and sharing of information, have a direct impact on individuals' learning preferences and related learning environments. For teachers/pre-service teachers who guide students in their learning journey, this situation plays an important role not only for their own learning but also for integrating technology into learning environments. The aim of this study was to investigate the tendencies and preferences of pre-service mathematics teachers towards the use of technology. The study used a case study design, a qualitative approach. Pre-service teachers' 73 lessons in line with the objectives of the secondary 9-12 mathematics curriculum were examined as the primary data source, and the findings were presented by supporting the pre-service teachers' opinions. The data were analyzed using descriptive and content analysis and interpreted according to grade level, learning area, preferred technology and the phases of the lesson. The results show that the pre-service teachers used technology mostly in the explore phase of the lesson. While geogebra is often preferred in the explore phase, videos are used intensively in the engage and explain phases. The opinions of the pre-service teachers show that they prefer the use of technology because of attracting attention, reminding prior knowledge and eliminating the deficiencies in their prior knowledge at the engage phase; ensuring active participation, attracting attention, concretising concepts, facilitating drawings and enabling students to construct knowledge at the explore phase; saving time, eliminating learning deficits, increasing retention and visualization at the explain phase, consolidation at the elaborate phase and fun and ease of use at the evaluate phase. It was concluded that those pre-service teachers, not preferred the use of technology, thought that it could distract students, that they felt inadequate in using technology, that they did not always have access to technology and that effective teaching could be done without technology.

Anahtar Sözcükler: use of technology, mathematics education, pre-service teachers

(165) Students' Assignments and Research Papers Generated by AI: Saudi Instructors' Views

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Nowadays, AI models can generate written content, including research papers using sophisticated algorithms to produce text based on input prompts. Some student resort to AI to fully write their assignments and research papers. While AI-generated content can be helpful, it raises ethical questions. Since academic integrity requires students to engage with the material, conduct research, practice research and writing skills and contribute their own insights, this study aims to explore instructors' views on the use of AI for fully generating assignments/research papers by students, and what reasons they give for their acceptance or rejection. A sample of language and translation instructors was surveyed. Results showed that all instructors do not approve of using AI in generating assignments/research papers at all. They consider it cheating, dishonesty, and plagiarism. By doing so, the students will not acquire research and writing skills. Evaluations of students' work will not be fair. Due to lack of expertise and competence, the students cannot verify, and will not be able to detect the false information, mistranslations and non-existent references rendered by AI. If students submit AI-generated assignments or research papers, the instructors would ask them to re-write them. The students have to declare if they have used AI and in what. Some instructors do not mind using AI in statistical analysis, obtaining references, summarization, translating sections from a reference, editing and proofreading. They recommended raising students' awareness of their own, their college and university policies regarding the use of AI-generated content through workshops. Further views and recommendations will be reported in detail.

Keywords: AI-generated content, AI plagiarism, Students' research, AI-generated content policies

(166) Adaptation of Teacher Digital Competence Scale to Pre-service Teachers

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With the accelerating development of information and communication technologies, the importance of technology in education is gradually increasing. The digital transformation process in education has made it inevitable for teachers to have digital competencies, and in this direction, various frameworks for teacher digital competencies have been established by many national and international organizations. The development of teachers' digital competences plays a critical role in creating productive learning environments by organizing the teaching process in a purposeful way using renewed teaching and learning strategies. As future teachers, the digital competence experiences of prospective teachers during the education process they receive as future teachers are effective in their use of digital technology in their future professional lives. For this reason, taking steps to identify and improve their digital competence levels has an important place in terms of providing information about what should be done to identify and eliminate the existing deficiencies in teacher education. In line with these aims, within the scope of the study, the applicability of the digital competence scale developed by Gümüş and Kukul (2023) for teachers on pre-service teachers was tested. The scale used in the study has a 6-factor structure consisting of 46 items. In order to analyze the factor structure of the scale within the scope of the pre-service teachers' sample, exploratory factor analysis was performed with the data collected from 330 participants. As a result of the analyses, it was seen that the scale was reduced to 39 items in the context of pre-service teachers and consisted of a 5-factor structure. It was also found that the factors explained 62.35% of the total variance. Confirmatory factor analysis was performed in order to test the suitability of the model emerged by the exploratory factor analysis and to determine to what extent the results obtained are appropriate to the structure to be measured. Confirmatory factor analysis was conducted with 514 participants different from the group to which exploratory factor analysis was applied. With the analyses and item removal processes, the final fit values for the scale were [x2/df=2.394; GFI=.909; NFI=.922; CFI=.953; RMSEA=.052; RMR=.033; SRMR=.043]. With the evaluations made within the scope of the literature, it was seen that the fit values obtained by confirmatory factor analysis were within the appropriate ranges. As a result of the analyses, a valid and reliable scale consisting of 25 items and 5 factors was obtained. With the adapted scale, it is thought that it can help to raise awareness on this issue by measuring the digital competencies of pre-service teachers, and also contribute to the processes of updating and developing teacher training programmes, which are constantly criticized with the data obtained.

Anahtar Sözcükler: Digital competences, information and communication technologies, pre-service teachers

(167) Açık ve Uzaktan Öğrenmede Eğitsel Videoların Dönüşümü

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Eğitsel videolar, akademik konulardan beceri geliştirmeye kadar uzanan farklı bilgilerin kavramların veya becerilerin öğrenilmesini kolaylaştırmak, böylece öğrenen katılımını ve performansını geliştirmek amacıyla tasarlanan, esnek, erişilebilir multimedya kaynakları olarak ifade edilebilirler. Eğitsel videolar; hedef kitlenin belirli öğrenme hedeflerine ulaşmasını grafikler, animasyonlar, illüstrasyonlardan oluşan görsel unsurlarla; öğrenenin aktif katılımını sağlayan etkileşim unsurlarıyla; altyazı, transkript, sesli açıklamalarla desteklenen erişilebirlik seçenekleriyle destekleyerek; bilgi, tutum ve davranışın kalıcılığına katkı sağlarlar. Eğitsel videoların kullanımı COVID-19 pandemisi sonrasında teknolojik gelişmelerle yapay zekânın sunduğu olanaklar doğrultusunda artma eğilimi sergilemektedir. Çalışma, SCOPUS veri tabanında bütün alanlarda açık ve uzaktan eğitimde video kullanımını temel alan, eğitsel videoların kullanımına yönelik araştırmaları inceleyerek, eğitsel videoların zaman içindeki değişimini değerlendirmeyi, akıllı teknolojilerin sağladığı dönüşümü keşfetmeyi amaçlamaktadır. Bu bağlamda sistematik literatür taraması yöntemiyle, SCOPUS veri tabanında 1976 ile 13 Nisan 2024 tarihleri arasında yayınlanan İngilizce makaleler kapsamlı bir arama dizgesiyle taranarak ulaşılan makaleler analizlere dahil edilmiştir. Bulgular, önceden pasif ve tek yönlü eğitim olanağı sunan eğitsel videoların, teknolojideki, öğrenen profilindeki, pedagojideki ve iş dünyasının çalışanlardan beklentilerindeki değişikliklere bağlı olarak öğrenenin aktif katılımını destekleyen, etkileşimli, öğrenme yolunu oluşturmasına olanak sağlayan doğrusal olmayan bir yapıya evrildiğini ortaya koymaktadır. 2020'li yıllarla birlikte algı, aktif katılım, iletişim becerileri ve öğrenmeyi öğrenme, erişilebilirlik seçenekleri önem kazanmaktadır. 2021 ve sonrasında 360 derece videolar, sanal çevreler, video temelli öğrenme, 2022'de yapay zekâ, oyunlaştırma, oyun tabanlı öğrenme, 2023'de video öğrenme, dijital öğrenme, dijital hareket öğrenme; 2024 ile birlikte ise 360 derece videolara bağlı olarak sarmalayan (immersive) video, sarmalayan video teknolojileri, çok yönlü video, küresel video, VR video kavramlarına doğru bir eğilim görülmektedir. Özetle akıllı teknolojilerdeki kritik paradigma değişiklikleri açık ve uzaktan eğitimi yeniden şekillendirerek, eğitim içeriğinin oluşturulmasında, sunulmasında ve deneyimlenmesinde ortaya çıkan değişimlerle, eğitsel videoların dinamik öğrenme araçları olarak dönüşümünde önemli fırsatlar sunmaktadır.

Anahtar Sözcükler: Eğitsel video; Eğitici video, 360 derece video; Çok yönlü video; Sarmalayan (Immersive) video; Video temelli öğrenme

(168) Prospective Teachers' Approach to Incorporating AI in K-12 Education: Insights and Implications

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An understanding of Artificial Intelligence (AI) and its implications is crucial for shaping society's future. To equip students with AI literacy, it is essential to integrate AI-related tools, competencies, and instructional content into the K-12 curriculum. Moreover, teacher education and professional development in AI are imperative, as teachers' interpretations and utilization of AI curricula can be influenced by their knowledge and assumptions about the field. This research investigated prospective computer science teachers' (PCST) perceptions about the role of AI in K-12 education. Participants, senior students at the Department of Computer Education and Educational Technology, responded to an online form comprising four open-ended questions. Three themes emerged as a result of the thematic analysis: PCST values the potential of AI for K-12 education for facilitating teaching and learning as a tool; PCTS can identify some of the AI concepts relevant to K-12 education such as algorithms and machine learning; however, most of them cannot offer meaningful instructional activity ideas integrating these concepts and consider AI just as a tool for productivity. The findings suggest that prospective teachers must receive adequate preparation and understanding of AI, including its capabilities and limitations, to confidently integrate AI into their teaching practices.

Keywords: prospective teacher education, AI education, K-12 education

(169) Building Future Education: The Role and Impact of Adaptive Learning Environments in ODL

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With the rapid development of information technology and the advent of the knowledge economy era, modern society has presented new challenges and demands for education. This study aims to explore the impact of Adaptive Learning Environments (ALE) on Open Distance Learning (ODL), particularly the role of information technology in promoting the development of ALEs. By analyzing the needs of current educational reforms, the construction of educational technology disciplines, the optimization of digital learning environments, and the development trends of distance education, this paper proposes that the future of education, especially ODL, should focus on developing and matching Adaptive Learning Environments. The study finds that ALEs can provide learners with personalized learning paths, stimulate learning enthusiasm, and also bring challenges such as network security and data privacy protection. This paper further discusses how to use information technology to optimize ALEs and looks forward to the future development model of ODL, emphasizing the importance of adaptive learning systems in meeting individual learning needs and lifelong education.

Keywords: Adaptive Learning Environments; Open Distance Learning; Information Technology; Educational Reform; Digital Learning Environment

(170) Agavi: Digital Science Education for Everyone

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The COVID-19 pandemic was a genuine opportunity to transform science education for the 21st century. Instead, the opportunity has been mostly squandered, with the standard lecture-lab science classrooms migrating almost completely intact to the digital environment through the use of Zoom lectures and simulation labs. This underwhelming transition to online learning negatively impacted students, instructors, and institutions, resulting in a global push for a return to in-person versions of the same, with not much learned from the whole experience. The format of this transition was necessitated due to the rapidity of the COVID-19 pandemic lockdowns, but was exacerbated by poor resources for offering quality online learning at reasonable cost. This includes not only digital platforms, but general internet and connectivity infrastructure as well. We will be discussing the Agavi project that Science Voices (a US-based nonprofit organization focused on improving equity in digital science education) has been working on since the start of the pandemic. Informed by our experiences in poorly connected internet environments in Indonesia, Romania, Brazil, and the US Virgin Islands, the Agavi project is designed to fill the gap between traditional 20th century digital tools (learning management systems, videos, multiple-choice quizzes, etc.) that most of the world works with and the 22nd century digital tools that Silicon Valley is obsessed with (virtual reality, augmented reality, metaverse, etc.). We will be discussing the challenges that many parts of the world face in terms of technology access and how these challenges, coupled with Silicon Valley's blindness to the internet reality that most of the world copes with, perpetuates outdated and ineffective pedagogies in the classroom. We will also discuss the philosophical and ethical underpinnings of our focus on low resource educational environments.

Keywords: digital education, COVID-19, equity, science education

(171) Orchestrating Quality in Open and Distance Learning

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The development of higher education has been significantly impacted by the rise of open and distance learning (ODL) practices, underscoring the critical need to ensure the provision of high-caliber education. Quality management in the domain of open and distance higher education poses distinct challenges and opportunities, necessitating a comprehensive understanding of existing practices, frameworks, and their effectiveness. This systematic review aims to synthesize the existing body of literature on quality management in ODL, offering valuable insights for policymakers, administrators, educators, and researchers. Its key objectives include identifying and analyzing relevant concepts, theories, and models related to quality management, as well as assessing the methodologies employed to evaluate and improve quality within this context. Following established systematic review protocols, including rigorous search strategies, eligibility criteria, data extraction, and synthesis methods, the review will systematically search electronic databases. Data extraction will cover study characteristics, theoretical frameworks, methodologies, key findings, and limitations, while synthesis will involve thematic analysis and narrative synthesis to identify patterns, trends, and disparities in the literature. The anticipated outcomes include a comprehensive overview of quality management practices in ODL, encompassing conceptual frameworks, methodologies, outcomes, and associated challenges. The review will highlight both the strengths and limitations of current practices, focusing on their adaptability and effectiveness in diverse ODL settings. By shedding light on the present state quality management practices in ODL, this review aims to promote improvements in the quality, accessibility, and relevance of open and distance higher education in an ever-changing global landscape.

Anahtar Sözcükler: Open and distance learning (ODL), Quality management, Quality assurance, Higher education, Systematic review

(172) Afet Sonrası Psikososyal Destek Müdahale Eylem Planı (ASOPMEP) Kapsamında Teknoloji Kullanımının Ruh Sağlığı Profesyonellerinin Dijital Yetkinliğine ve Tutumlarına Etkisi

Sonay Caner-Yıldırım

Erzincan Binali Yıldırım University

6 Şubat 2023 tarihinde meydana gelen ve çalışmanın yürütüldüğü ilde büyük yıkıma neden olan depremler, ruh sağlığı profesyonellerinin hizmet sunumunda dijital teknolojileri benimsemelerinin önemini bir kez daha ortaya koymuştur. Dijital teknolojilerin ruh sağlığı hizmetlerine entegrasyonunun artmasıyla birlikte, ruh sağlığı profesyonellerinin dijital yetkinlikler geliştirmeleri ve teknoloji kullanımına yönelik olumlu tutumlar sergilemeleri ihtiyacı da belirginleşmiştir. Bu çalışma, Afet Sonrası Psikososyal Destek Müdahale Eylem Planı (ASOPMEP) bağlamında teknoloji kullanımının ruh sağlığı profesyonellerinin dijital yetkinliğine ve tutumlarına (teknoloji kabulü) etkisini incelemektedir. Araştırmanın odak noktası, bireylerin bu projeye gönüllü ve içsel motivasyonla katılımının, teknoloji yetkinlikleri üzerinde bir fark yaratıp yaratmadığıdır. Nitel araştırma yöntemi benimsenmiş olup, depremden etkilenen bireylere destek sağlamak amacıyla gönüllü olarak çalışan beş ruh sağlığı profesyoneliyle yarı yapılandırılmış görüşmeler gerçekleştirilmiştir. Görüşmelerde, katılımcıların ASOPMEP kapsamında teknoloji kullanımına ilişkin deneyimleri, algıları ve tutumları ile projeye katılımlarının dijital yetkinlikleri üzerindeki etkisi ele alınmıştır. Elde edilen bulguların, afet sonrası süreçte ruh sağlığı profesyonellerinin dijital yetkinliklerini ve tutumlarını geliştirmede teknoloji kullanımının rolüne dair önemli bilgiler sunması beklenmektedir. Bu çalışma, özellikle deprem gibi zorlu koşullarda ruh sağlığı hizmetleri sunarken dijital teknolojilerin etkin bir şekilde benimsenmesini ve kullanılmasını kolaylaştıran faktörlerin anlaşılmasına katkı sağlamayı hedeflemektedir. Sonuçlar, afet sonrası dönemde etkili ve verimli psikososyal destek hizmetlerinin sağlanmasında dijital teknolojilerden yararlanmaları için ruh sağlığı profesyonellerine yönelik stratejilerin ve müdahalelerin geliştirilmesine ışık tutabilir.

Anahtar Sözcükler: dijital yetkinlik, teknoloji kabulü, ruh sağlığı profesyonelleri, afet sonrası psikososyal destek, nitel araştırma

(173) Exploring AI: Practical Applications of Productive Skills in ELT for Online and Distance Learning

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Following the transition to emergency remote teaching during the pandemic, English as a Foreign Language (EFL) teachers throughout the world have been required to integrate various educational technology models and tools into their classes in order to level up the teaching and learning environment. One of the most recent forms of technology that enhances education is artificial intelligence (AI). Furthermore, as online and distance learning continue to shape the landscape of education, the integration of AI into English Language Teaching (ELT) presents a wealth of opportunities. Considering the time constraints experienced by EFL instructors and the lack of opportunities for practice on students' side, the use of AI might enhance the learning and teaching environment in terms of feedback, motivation, engagement and self-directed learning. Therefore, this presentation delves into the practical implications of AI which enable teachers to save class time for more hands-on practice and assist students with the productive skills (writing and speaking) they need more individualized guidance for. In this presentation, a selection of AI tools that empower EFL instructors to create engaging and personalized learning experiences, fostering improved language proficiency and student engagement will be explored. Through the demonstration of AI tools that can be used in online and distance learning, the participants will be able to comprehend how AI tools can assist them and their students in speaking and writing classes. The tools that will be provided in the presentation not only alleviate the workload of instructors but also offer students continuous opportunities for language practice and improvement both in and out of traditional classroom settings. By embracing this trend in technology, EFL instructors can elevate their teaching methods, personalize learning experiences, and ultimately empower students on their language learning journey in the digital era.

Keywords: English as a Foreign Language (EFL), Productive Skills, Writing Skill, Speaking Skill, Artificial Intelligence (AI), AI Tools

(174) Using the Book Creator platform in education

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Happening

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This work presents ways of using the Book Creator platform in education, specifically how to create interactive digital content through the Book Creator platform. Book Creator is a digital tool/online platform that allows users to create interactive digital books. It was created in 2011 and can be used in many ways in the teaching process, for creating digital content, carrying out collaborative projects, digital portfolios, teaching resources, or use in both formative and summative assessment. In this regard, students can create their own digital books, adding text, images, audio, and video. This encourages creativity and the development of writing skills. Also, Book Creator allows multiple users to work together on the same book, thus promoting collaboration and teamwork. Students can use Book Creator to create projects and digital portfolios of their work, reflecting on their progress over time. Teachers can create digital books as teaching resources, such as interactive lessons or storybooks. And last but not least, Book Creator can be used for formative and summative assessment, allowing students to demonstrate understanding and application of knowledge in a creative format. Formative assessment refers to finding out how students have developed discipline-specific competencies, what misconceptions they have, so that the teacher can plan future instruction to meet student needs. With Book Creator, teachers can listen to the voices of students, capture their thinking, and have a shareable product that analyzes their development. Methodology. The purpose of this work is to present Book Creator platform that provide the teacher with useful tools in the didactic design, but also in the actual activity, in the classroom, in the interaction with the students. The objectives of the article are: (1) to present Book Creator platform that can be used in the didactic process, both in the real environment and in the virtual environment and (2) to describe the way of creating didactic resources (3) to complete the digital library Tools for creating Open Educational Resources in STEM education with Open Educational Resources that can be used to education, in pre-university education. Conclusions. The use of the Book Creator platform has some benefits, such as: customization of educational content by teachers for their class level, an engaging learning environment; access to various sites with interactive labs, development of student creativity, addresses different learning styles; makes possible learning at one's own pace. The use of such digital resources facilitates the creation of personalized learning experiences for students.

Keywords: Book Creator, education, virtual environment, digital resources, teaching, creativity

(175) Twee - an AI tool, friend of the teaching process

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This paper presents ways of using the Twee platform in education, not only in English classes but also for other subjects, in this case for Physics. Twee is an AI tool designed to facilitate lesson planning for English teachers. It uses artificial intelligence to generate didactic design tools that can be used both in the physical context, in the classroom, and in the virtual environment. Twee offers a wide range of features that can help teachers create questions, dialogues, stories, letters, articles, multiple choice questions, true/false statements and more. Some key features of Twee are: • Generating Questions: Twee can generate questions for any YouTube video in seconds. • Generating dialogues, stories, letters or articles, on any topic and for any level. • Create assessment tests with various item types, such as multiple choice, open-ended questions, and true/false statements. • Find interesting discussion questions, facts and quotes from famous people that can be used to stimulate class discussions. • Creating vocabulary exercises: Twee can generate fill-in-the-blanks and open-bracket exercises. The article details the use of Twee for Physics, 12-year-old students, using a video on Light Reflection. Research methodology. The purpose of this article is to present how Twee, based on a video uploaded to the platform, can create curriculum design products. The research objectives relate to: (1) the degree of accuracy with which Twee can convert the video message to text; (2) the degree of accuracy with which Twee can create various rating items based on a video uploaded to the platform. Conclusions. Using Twee, like any other AI tool, comes with its own pros and cons. Advantages: efficiency; personalization of educational content; diversity in the creation of evaluation items. Disadvantages: can create dependence on technology loss of teachers' ability to manually create educational content; content quality may vary and may require human review and adjustment. Furthermore, although AI has made significant progress, there are still limitations. For example, Twee may not always understand context or nuances of language, which may lead to errors or ambiguity in the generated content. It is important to balance the use of AI tools such as Twee with traditional teaching and learning approaches. Judicious use of technology can enhance the learning process, but it should not replace human interaction and evidence-based pedagogical approaches. Twee is a tool that can save time for teachers, allowing them to focus more on interacting with students and improving the learning process. However, as with any digital tool, it is important to use it judiciously and balance it with other forms of learning."

Keywords: Twee, AI, AIED, Physics education, virtual environment, digital resources, teaching.

(176) Technology Integration in English Courses in Secondary Education: A Proffessional Development Case

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With the developments in recent years, technology has manifested itself in the field of education as well as in almost every aspect of daily life, and the inclusion of technology in lessons has become a need rather than a preference. On the other hand, meeting this need has necessitated the development of teachers' technological competencies. For this reason, the aim of this study is to prepare a distance in-service training plan for English teachers working in Başakşehir district of Istanbul to help them integrate technological applications into their lessons, to implement the prepared plan and to evaluate its effectiveness. Case study method, one of the qualitative research methods, was used in the study. A total of 22 English teachers and 342 students from 9th, 10th and 11th grades, who are the participants of "English Together Project Professional Development Communities" in Başakşehir, Istanbul, voluntarily participated in the study. Teachers who participated in the prepared workshop were asked to keep observation diaries after the practices they carried out in their classrooms. In addition, focus group interviews were conducted with both teachers and students via zoom and the data obtained from these interviews and observation diaries were evaluated by content analysis method. The data obtained showed that teachers found the applications useful and believed that using them in the lesson would contribute to the teaching process. Students also stated that their knowledge was more permanent with this application and that they now had a motivation to study. It was also observed that the workshop contributed to the teachers' achievement of the standards set by the International Society for Technology in Education (ISTE). It is believed that a further study with a larger group and introducing a larger number of technological applications will contribute to the literature.

Keywords: Professional development, secondary education, technology integration

(177) Replacing the Lecture in E-Learning with Guided Learning

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In e-learning, lectures are often replaced by videoconferences and video tutorials. We surveyed 300 students in online courses on the effectiveness of videoconferencing and tutoring using this method of teaching. According to this survey, we found that 80% of students find it difficult to acquire the maximum amount of knowledge using this method, 8% make a great deal of effort to get the minimum amount of what has been transmitted. Only 2% are convinced that they have understood everything. The aim of this article is to change the way e-learning is taught by moving away from a unilateral transmissive model towards a bilateral paradigm based on guided learning. This article leads to recommendations for online institutions that would like to change their pedagogical orientation in order to make teaching and learning successful and give it a new perspective.

Keywords: online teaching, guided learning, lecture-based teaching

(178) Reducing the Drop-Out Rate Using Individual Online Support Using the Synchronous Method

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In view of the many factors that can lead to drop-out in e-learning, the aim of this research was to explore the effects of individual online support using the synchronous method (videoconferencing, telephone call, chat) on learner motivation. Surveys were carried out with 400 university learners, including 200 by telephone, 100 by videoconference and 100 by chat. The use of this support with pedagogical considerations based on constructivism considerably reduces the drop-out rate.

Keywords: drop-out, online support, synchronous method

(179) Designing a Model for Developing High-Quality Online Courses by Integrating Explicit Teaching

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The increase in online training and the demands of institutions are leading researchers to develop a model for the design of effective, higher-quality online courses. This article provides a model for designing online courses by adopting explicit teaching, which is based on guided learning and takes account of the theory of online instructional design. The implementation was carried out in three higher education institutions with fully online degree programmes in Madagascar since 2017.

Keywords: model, high-quality online course, explicit teaching

(180) Theology Students' Perceptions of Videoconferencing

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Videoconferencing is a form of communication that allows individuals or groups in different locations to connect and interact in real time using video and audio technologies. Despite its advantages, its success depends on various factors such as teachers, students and their attitudes to educational technology. This study aims to find out students' perceptions of training via videoconferencing. Surveys were conducted among 500 online students at three online institutions on their perceptions of the use of videoconferencing. Short answer and Likert scale questions were used. The results indicated that students tend to have a positive attitude towards the use of videoconferencing in the classroom.

Keywords: videoconferencing, perception, student

(181) Açık ve Uzaktan Öğrenme Programlarını Terk Eden Kadın Öğrenciler Bize Ne Söylüyor: Değerler Bağlamında Yorumlanması

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Bu araştırmada açık ve uzaktan öğrenme programlarını terk eden kadın öğrencilerin bu kararlarında etken olabilecek nedenlerin kültürel değerleri bağlamında yorumlanması amaçlanmıştır. Araştırmanın amacı doğrultusunda terk etme deneyimi olan 12 kadın öğrenciyle terk etme nedenleri hakkında yarı yapılandırılmış görüşmeler yapılmış ve Schreier'ın (Schreier, 2014) nitel içerik analizi tekniği kullanılarak bu görüşme verileri analiz edilmiştir. Araştırmanın kuramsal çatısını, alan yazında en çok çalışılmış bir başlık olarak ifade edilen Geert Hofstede'ın (Hofstede, 2001) kolektivizm-bireysellik boyutunun kolektivizm kutbu oluşturmaktadır. Aynı zamanda kadın öğrencilerin terk etme nedenlerinin nitel görüşmelerle ayrıntılandırılması sonucu elde edilen veriler yorumlanırken kolektivizmi çalışan farklı alanlardan araştırmacıların alan yazına kazandırdığı değer kavramlarından da yararlanılmıştır: Hui ve Triandis'ın (Hui & Triandis, 1986) "sosyal etkiye duyarlılık", "öz temsil"; Hong-Kong'lu sosyal bilimci David Yau-Fai Ho'nun (Ho, 1976) "yüz kaybetmek"; Triandis ve arkadaşlarının (Triandis et al., 1990) "fedakârlık", "ortak kader"; Kuşdil ve Kağıtçıbaşı'nın (Kuşdil & Kağıtçıbaşi, 2000) "namus" ve Kağıtçıbaşı'nın (Kagitcibasi, 1973) geleneksel değer türü başlığı altında tanımladığı "dış kontrol odağına olan güven" gibi. Araştırmanın bulgularına göre, görüşme soruları olan ve aynı zamanda araştırmanın kavram odaklı kategorilerinin yapılan görüşmelerle ayrıntılandırılması sonucu toplam 11 alt kategori veri odaklı olarak ortaya çıkmıştır. Köseoğlu ve arkadaşları (Koseoglu et al., 2020) açık ve uzaktan öğrenme alan yazınında toplumsal cinsiyet eşitsizliğinin nasıl ele alındığını incelemek için yaptıkları araştırma neticesinde, kadınların eğitimindeki en önemli engelin toplumların geleneksel, kültürel ve politik yapılanma biçimlerinin ve eğitim sisteminin kendisinin olabileceğini ifade etmişlerdir. Açık ve uzaktan öğrenmenin toplumdaki dezavantajlı kesim olan çalışan veya günlük hayatta farklı sorumlulukları olan kadınlar için öğrenme olanağı sunduğu hedefi bu araştırmayla sorgulanabilir duruma gelmiştir. Sonuç olarak açık ve uzaktan öğrenme alanı bireylerin değer farklılıklarından dolayı toplumsal cinsiyet eşitsizliğini daha derin hale getirebilmekte ve bu eşitsizliklerin sürekli hale gelmesine neden olabilmektedir.

Anahtar Sözcükler: uzaktan eğitim, terk etme, Geert Hofstede, değer, toplumsal cinsiyet eşitsizliği

(182) Adaptive Learning Environment in Open and Distance Learning

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Purpose: With technology breakthroughs, digital technologies are disrupting traditional methods of doing things, and education is no exception but not inevitable at the same time. At the moment, the adaptive learning environment is emerging as the most significant component of digital technologies being actively employed in open and distance learning and plays a critical role in providing personalised and adaptive instructions to students who are geographically dispersed and come from a variety of backgrounds. By leveraging advanced technologies such as Artificial Intelligence/Machine Learning, adaptive learning environments have been claimed to have great potential to improve teaching and learning in open and distance learning. However, there is not enough evidence to prove such claims. As a result, further study is required to investigate the effectiveness of adaptive learning in open and distance learning. The purpose of the study is to critically evaluate adaptive learning to understand how student agency is defined and understood in the development adaptive learning environment. The additional inquiry will be to explore teacher's roles, responsibilities, and interventions in adaptive learning environments and to note the impact, if any. Methods: The methodology used in this qualitative study involves a desk-based approach that primarily evaluates Adaptive learning systems such as ALEKS and Century Tech. Findings: The study intends to provide a more detailed and comprehensive understanding of the benefits, challenges, and implications of AI-driven personalised learning platforms. Conclusion and Recommendations: This study aims to help educational institutions evaluate the effectiveness of adaptive learning systems in promoting student agency. It also sheds light on the perceptions and expectations of educators regarding the potential benefits and challenges of adaptive learning environments. Ultimately, the findings of this research will be available to policymakers, edtech companies, and relevant stakeholders.

Keywords: Adaptive learning, Student agency, Open and Distance learning,

(183) Erken Çocukluk Eğitiminde Yapay Zeka: Sistematik Bir İnceleme

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Bu makale, erken çocukluk eğitiminde yapay zeka (AI) kullanımına yönelik mevcut araştırmaların bir sistemik incelemesini sunmaktadır. Bu sistemik incelemeye dahil edilen makaleler, "Anaokulu", "Okul Öncesi Eğitim", "Erken Çocukluk Eğitimi" ve "Yapay Zeka" veya "AI" veya "GenAI" anahtar kelimeleri kullanılarak Web of Science veritabanında taranmıştır. Araştırma kapsamı, Eğitim ve Eğitim Araştırmaları kategorilerine odaklanmış ve sadece "Makale" belge tipiyle sınırlı tutulmuştur. Web of Science veritabanında gerçekleştirilen bu tarama ile belirlenen ilgili makaleler, yapay zekanın bu alanda nasıl kullanıldığını, getirdiği faydaları, karşılaşılan zorlukları ve potansiyel etkilerini analiz etmek üzere incelenmiştir. İnceleme, öğretim materyallerinin kişiselleştirilmesi, öğrenci performansının izlenmesi ve öğrenme deneyimlerinin iyileştirilmesi gibi konularda yapay zekanın etkilerini ortaya koymaktadır. Ayrıca, bu teknolojinin uygulanmasında karşılaşılan etik, teknik ve pedagojik zorluklara da değinilmektedir. Sonuç olarak, makale, yapay zekanın erken çocukluk eğitimine entegrasyonunun gelecekteki eğitim pratikleri ve politikaları için önemli öngörüler ve tavsiyeler sunmaktadır.

Anahtar Sözcükler: okul öncesi, yapay zeka, sistematik inceleme

(184) Üretken Yapay Zekâ Çağında Uzamsal (Mekânsal) Bilişim ve Yenilikçi Arayüzler

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Açık ve uzaktan öğrenme, öğrenenlerin ve eğitimcilerin zaman ve/veya mekân olarak ayrı olduğu, uzaktan iletişim teknolojilerinin kullanılmasıyla gerçekleşen etkileşimlere dayanan bir eğitimi betimler. Dolayısıyla açık ve uzaktan öğrenme, öğrenme platformlarının yer aldığı teknolojiye erişimi ve etkileşimi gerektirir. Söz konusu erişim ve etkileşimi sağlayan ise, ilgili platformun yer aldığı teknolojide kullanılan arayüzdür. Arayüzler, içinde yaşadığımız dijital çağda teknolojiyle etkileşimlerimizi ve iletişimimizi şekillendirirler. Bir çeşit köprü görevi gören araçlar olarak arayüzler, öğrenenlere sağladığı kullanım kolaylığına bağlı olarak kullanılabilirlikle ilişkilendirilebilir. Açık ve uzaktan öğrenme deneyimini iyileştirerek etkili bir öğrenme ortamı yaratmak için, kullanıcı dostu, etkileşimli, kişiselleştirilmiş arayüz tasarımları kullanmak artı değer yaratabilir. Üretken Yapay Zekânın geniş kapsamlı verileri gruplandırarak analizini gerçekleştirmeye yönelik sergilediği performans, arayüzlerin hem bağlam, hem işlev, hem de görsel çekiciliği yüksek şekilde tasarlanmasına olanak sağlamaktadır. Ayrıca öğrenenlerin tercihleri ve kalıplarını tanımlayarak, kullanıcı deneyimine ilişkin kapsamlı geribildirim verileri sağlaması, kişiselleştirme noktasında önemli avantajlar sağlama potansiyeli taşımaktadır. Bütün bunlar arayüz tasarımında inovasyon döngüsünü hızlandırarak, yenilikçi arayüzler üzerinde düşünmeyi kolaylaştırmaktadır. Bu bilgiler ışığında çalışmanın amacı, uzamsal bilişim ve arayüz tasarımına yönelik çalışmaları inceleyerek, uzamsal bilişim ve arayüz tasarımının zaman içindeki değişimini değerlendirerek, akıllı teknolojilerin yarattığı etkiyi keşfetmektir. Sistematik literatür taraması yöntemiyle, SCOPUS veri tabanında 1993 ile Nisan 2024 tarihleri arasında yayınlanan 46 çalışma analiz edilmiştir. Araştırma bulguları, 2017 yılından itibaren konuyla ilgili çalışmaların ciddi bir ivme kazandığını göstermektedir. Ayrıca bulgular 2020 ve sonrasında, karma gerçeklik/artırılmış gerçeklik etkileşim paradigmaları, multimodal arayüz, duyusal altyazı, doğal kullanıcı arayüzü, duygusal bilişim, sensör geribildirimleri, kapsayıcı tasarım, tasarım arayüzler, uzamsal etkileşim, nesnelerin interneti, görev analizi, jestsel arayüz, genişletilmiş gerçeklik, metaverse, insan merkezli bilişim, multimodal 3D etkileşim paradigmaları, uzamsal arayüz kavramlarının uzamsal bilişimle birlikte kullanımına yönelik bir eğilimi işaret etmektedir. Çalışma, akıllı teknolojilerin sunduğu olanaklar doğrultusunda uzamsal bilişim ve yenilikçi arayüz tasarımlarını holistik bir yaklaşımla ele alarak, genel eğilimleri ortaya koyduğu, açık ve uzaktan öğrenmede kullanımına yönelik bir bakış açısı oluşturma katkısı sağladığı için önemlidir.

Anahtar Sözcükler: Üretken Yapay Zeka, Uzamsal (Mekansal) Bilişim, Arayüz, Sensör Geribildirimleri, Uzamsal arayüz, İnsan merkezli bilişim

(185) The Role of Artificial Intelligence in Distance Learning

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The Industrial Revolution brought huge changes to the education system. Math and reading skills became more important as factory jobs replaced agricultural jobs. State education shifted to a factory model, where students would learn the skills that would serve those factories best. The coming revolution in artificial intelligence (AI) could usher in a similar tectonic shift in how we teach—and how we learn. The aim of this paper is to highlight on applying AI in eLearning. AI is important in modern education as AI enables educators to create and update content more efficiently, ensuring that the learning materials are always up-to-date and relevant. This helps students stay informed about the latest developments in their field of study and prepares them for future challenges. The field of eLearning has grown rapidly in recent years, with more and more students opting to take online courses and programs. AI has the potential to revolutionize eLearning by providing personalized and efficient learning experiences for students. AI is a technology that allows education to become more humanly focused. It allows university teachers to focus on the most important part of their work, teaching the students, rather than teaching a curriculum. AI-enabled online learning platforms can analyze individual student data, including learning patterns, preferences, and strengths. This information is used to tailor learning content and experiences, ensuring that each student receives a personalized curriculum that matches their learning pace and style. AI assists teachers by providing personalized learning experiences, automating administrative tasks, offering real-time feedback, facilitating professional development, enhancing teaching strategies, and promoting inclusivity in education. AI-powered adaptive learning uses algorithms to evaluate a student's abilities and identify gaps where they require more support. It also examines how each student interacts with course content to make real-time adjustments that empower a greater understanding of concepts. AI can also be beneficial for teachers, as it can be used to grade assignments, write more relevant objectives, and even create courses. Through AI, manual and time-consuming processes like taking attendance and managing permissions can be automated, leaving more time for the instructors to teach and develop relevant materials. AI can automate repetitive and time-consuming tasks, such as grading and providing feedback, freeing up educators to focus on other important aspects of teaching. AI can help to reduce costs associated with eLearning by automating certain tasks and making the learning experience more efficient. Future innovations in AI-education must focus first and foremost on meeting the needs of the people who use it: teachers and students. And further inroads must be made to integrate these new innovations into the existing system.

Keywords: AI, Distance learning, education, elearning

(186) Academic and pedagogical adaptations in the Master in Social Administration in Territorial Development Management: challenges and lessons learned during the COVID-19 health crisis in Brazil

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The first case of COVID-19 in Brazil was confirmed on February 26, 2020. Few days after, the Ministry of Health declared a state of community transmission nationwide. During this timeframe, Brazil's President (Jair Bolsonaro) undertook a stance minimizing the gravity of the pandemic and contributed to the dissemination of significant volumes of misinformation aimed at undermining the World Health Organization's protocols for mitigating widespread contagion. Until 2021, Brazil grappled with an unprecedented health crisis, marked by 4,249 daily individuals' death. In response to the exigencies of the health emergency, the Federal University of Bahia promulgated Ordinance 103/2020 on March 18, 2020, effecting the suspension of all academic undertakings, whether conducted in-person or remotely, until further notice. This decision imposed adaptations of the pedagogical framework and academic procedures over the Master's program in Social Administration with a focus on Territorial Development Management (MSA). The MSA was a blended-learning modality and attended 550 students across five physical campuses. This paper is about how unpredictable changes can promote new possibilities of how to conduce blended learning experiences. In this paper, we show how the pandemic conditions has galvanized proactive measures and prompted the exploration and construction of alternative avenues to enable project fruition, thereby conferring novel layers of meaning and significance to our activities. The academic faculty swiftly implemented adjustments to the curriculum design in a bid to mitigate the ensuing disruptions. Consequently, in an expedited manner, it was resolved to immediately suspend in-person gatherings at the five designated hubs; The adaptations can be summarized under 4 cathegories: (a)adaptation of whole structures of evalution; (b) adaptation of local practices by offering on-line immersive experiences instead of visting local communities; (c)adaptation of instructional artifacts, authored by educators hailing from diverse geographic locales; and (d) the virtual orchestration of academic proceedings to cater to the unique exigencies confronting students impacted disparately by the emergent reality. All adaptations were based on the preservation of WHO's lockdown and healthy recommendations. However the nearly year-long delay incurred within the academic calendar, the challenges encountered have yielded a wealth of instructive insights. The experience is deemed successful, evidenced by the approximate 90% completion rate among active participants. This achievement stands in stark contrast to the attrition rates typically observed in Brazilian distance-learning contexts, which often range between 30 to 40%. From this situation our research contributes to understand the challenges faced by Brazilian Educational Institutions during pandemic and to contribute to understand the versatility and the democracy nature of on-line and blended learning.

Keywords: Pandemic; Distance Learning; Blended-learning; Brazil; adjustments to the pedagogical model; adjustments to the academic processes; Master in Social Administration Territorial Development Management.

(187) The Impact Of Artificial Intelligence On English Second Language Students: The review of Turnitin and Grammarly.

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Inclusion in Higher Education has been dramatically debated among scholars. For ages language has been perceived as one of the gate-keepers, denying many students access to the academic discourse. With the growing usage of Artificial Intelligence (AI), these technologies can have positive and negative implications, specifically for second-language speakers. This paper discusses the application of Natural Language Processing (NLP) technologies- Turnitin and Grammarly in particular, and how their automated grading and feedback tools affect second-language English speakers. This argument is underpinned by the Autonomous and Ideological Models of literacies, that student writing and use of language is not only about grammar and spelling but is understood as entailing a host of issues pertaining to identity and how knowledge is produced, rather than simply the instrument to acquire technical skills. Literature on the use of Turnitin and Grammarly was reviewed, each claiming a market of between 30 and 34 million users, and the findings revealed that amidst several benefits offered by these technologies, they still lack recognition of context. This view connotes literacy as a singular, static skill rather than a multifaceted and dynamic set of practices that are shaped by various sociocultural, technological, and individual factors. The recommendation is that while we take advantage of the benefits offered by these technologies, we should also be a coincidence that reading and writing always concern social practices related to particular contexts and the kind of learning that takes place will always be dependent on those contexts.

Keywords: Artificial Intelligence, English Second Language Speakers, Autonomous Academic Literacies Model, Ideological Academic Literacies Model, Inclusion.

(188) Geliştirilen 3D Materyalin Etkililik Çalışması

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Geleneksel eğitim-öğretim modeli, tarih boyunca öğretmeni merkeze alan ve öğrencilerin pasif bir şekilde dersi dinlediği bir sistem olarak kabul edilir. Zamanla teknolojinin ilerlemesi, eğitimin merkezinde yer alması gereken öğrenci profilinin değişmesi eğitim de birtakım yenilikleri ve yaklaşımların değişmesine yol açmıştır. Yapılandırmacı, problem çözme, işbirlikçi, proje tabanlı öğrenme yaklaşımıyla öğrenciler eğitimin merkezi konuma geçmiş öğretmenler ise öğrencilere rehber konumunda olmuşlardır. Eğitim alanında yapılan bu yeni yaklaşımlar, okullardaki fen eğitimi ve öğretiminde meydana gelen bazı değişiklikler ve yenilikler sonucunda ortaya çıkmaktadır. Fen eğitiminde bilim ve teknolojinin temeli vardır. Ayrıca fen, bireylerin zihinsel ve yaratıcılık yönünden geliştiği bir alandır ve ülkelerin gelişiminde çok önemli bir yere sahiptir. Bu bildiri ile 3D öğretim materyalinin eğitime katkısı ayrıntılı biçimde incelenmiştir. Altıncı sınıf fen ve teknoloji dersinde güneş sistemi ve tutulmalar ünitesindeki bazı soyut kavramların kazandırılması oldukça zordur. Fen ve teknoloji dersinde bu konunun geleneksel öğretim yöntemi ile anlatılması öğrenciyi ezberle öğrenmeye zorlar. Son yıllarda 3D öğretim materyalleri soyut kavramları somutlaştırmak amacı ile kullanılmaya başlanmıştır. Araştırmanın temel amacı, altıncı sınıf öğrencilerinin fen ve teknoloji dersi Güneş sistemi tutulmalar ünitesinin öğretiminde 3D teknolojisiyle tasarlanan öğretim materyalinin kullanılmasının öğrencilerin akademik başarılarındaki değişimi ve 3D öğretim materyali hakkındaki görüşlerini tespit etmektir. Güneş sistemindeki gezegenleri, Güneş'e yakınlıklarına göre sıralama konusunu anlamlandırarak derinlemesine bir öğrenme deneyimi sunmaktır. Güneş sistemi ve gezegenler öğretim materyali kendi boyutlarının ve görüntülerini doğru bir şekilde yansıtmaktadır..3D yazıcıdan alınan modellerin filament renkleri farklı bile olsa boyayarak, boyutlarını birbirlerinin oranları hesaplanarak çıktı alınmıştır. Öğrencilerin gerçeğine yakın bir modelleme ile daha doğru öğrenmeleri sağlandı. Araştırmanın yöntemi, nitel araştırma yöntemi olan görüşme formu kullanılmıştır. Görüşme formu 7 sorudan oluşmaktadır. Görüşme formu alan uzmanları tarafından hazırlanmıştır.36 kişilik bir gruba uygulanmıştır. Sorular 3D öğretim materyalini değerlendirme aşamasında etkililiğin sınanması için geliştirilmiştir. Görüşme formundan alınan cevaplara göre; öğrencilerin memnun kaldığı, yaparak yaşayarak öğrenme imkanı bulduğu, yeni bir şeyler öğrenme oranlarının yüksek olduğu görülmüştür. Araştırmadan elde edilen sonuçların 3D öğretim materyali ile işlenen derslerin öğrenme sürecine olumlu etkisini ve başarı seviyelerini artırdığını göstermektedir. Öğrencilerin uzamsal zekalarını geliştirdiği soyut kavramları somutlaştırabildikleri ve üst düzey bilişsel becerilerinin geliştirilmesinde katkı sağladığı görülmüştür. Anahtar Kelimeler : 3D, Öğretim Materyali, Gezegenler, Güneş Sistemi

Anahtar Sözcükler: 3D, Öğretim Materyali, Gezegenler, Güneş Sistemi

(189) Investigating the Relationship Between Teachers' Attitudes Towards Artificial Intelligence and Their Artificial Intelligence Literacy

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The aim of this study is to examine the relationship between teachers' attitudes towards artificial intelligence and their artificial intelligence literacy levels. In the study, the General Attitude Towards Artificial Intelligence Scale developed by Schepman and Rodway (2020) and adapted into Turkish by Kaya, Aydın, Schepman, Rodway, Yetişensoy & Demir-Kaya (2022) and the Artificial Intelligence Literacy Scale developed by Wang, Rau & Yuan (2022) and adapted into Turkish by Çelebi, Yılmaz, Demir & Karakuş (2023) were used. The population of the study consists of teachers working in public schools in Istanbul. The data analysis process of the research is ongoing.

Anahtar Sözcükler: Artificial intelligence, Artificial intelligence literacy, Attitudes towards AI, Teacher

(190) Enhancing The Effectiveness of the Course Design in ODL with Generative AI Technologies

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The integration of generative artificial intelligence technologies into educational platforms is increasingly recognized as a transformative force in shaping course design, especially within the context of open and distance learning. This research undertakes a detailed systematic review to assess the potential effects of these AI tools on the development of online courses, with a specific focus on the viewpoints of course designers. The methodology involves a comprehensive analysis of scholarly articles, case studies, and empirical research, all published within the last five years. Key databases such as, Web of Science and Google Scholar serve as the primary sources, meticulously scanned to gather relevant studies that explore the use of AI in educational settings. The selection process is keenly focused on works that address enhancements in course design attributed to generative AI technologies. Preliminary findings from this review indicate that generative AI has the potential to significantly advance the personalization of learning materials, thereby facilitating adaptive learning environments tailored to the specific needs and learning paces of individual students. Furthermore, AI-driven analytics provide valuable insights into student interactions and engagement patterns, offering course designers critical data to inform decisions about course modifications and content delivery strategies. However, the implementation of AI in educational contexts is not without its challenges. Issues related to ethical considerations, data privacy, and the requirement for substantial volumes of initial training data are prominently noted. In summary, while generative AI offers substantial opportunities to enhance course design in open and distance education through more personalized, engaging, and adaptable learning experiences, the realization of these benefits is contingent upon overcoming significant ethical and technical challenges. The research underscores the need for continued exploration into effective implementation strategies that optimize learning outcomes while ensuring the protection of student data and maintaining the integrity of educational practices.

Keywords: Generative AI, ODL, Online Learning Design

(191) E-learning as a promotor of intercultural and inclusion in Higher Education

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The introduction of technology has been changing the world. We are now amore multicultural society; the geographic barriers have been reduced and mainly there has been an increase in interaction and change of knowledge. In parallel, migration is an increasingly common phenomenon, that has been changing the type of students in Higher Education. If trough the technology everything is closer, why not use it for providing a more equative education that is not dependent on time or space, allowing anyone in anywhere in the world to attend University? Open University in Portugal, with an e-learning type of teaching, has been founded in 1988. Since then, until nowadays, several changes have been made regarding pedagogical issues, but its importance in Portugal is uncontested, and the number of students that annually choose this model of learning is increasing. To understand the positive impact of this type of teaching as promotor of intercultural and inclusion in Higher Education, an PHD investigation has been conducted, using mixed methods: descriptive and exploratory, involving in a first stage in-depth interviews with teachers and on a second stage an online survey with the students. The aim of this presentation is to explore either positive or negative aspects that have been highlighted by teachers, promoting a reflection regarding the unique aspects' characteristic of this type of teaching, essentials to promote an inclusive and flexible education.

Keywords: Globalization, Interculturality, Higher Education, Digital Technologies.

(192) Institutional Support for Students: Analyzing the Perspective of Distance and Online Learners

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This study was aimed to analyze the perspective of distance and online learners about the institutional support for the learning process. Quantitative survey design was used to conduct this study. All the graduate students studying in the distance and online learning programs were the population for this study. Simple random sampling technique was used to select the respondents from different degree programs, semester, geographic area, age group, status of students (working or full-time students), and gender. In total, 518 students submitted their response to the research instrument. There were four factors covered in the research instrument: tutors' characteristics, academic competency support, use of technology in instruction and teaching practices. The study concluded that there was a statistically significant difference among students' responses from various semesters on tutors' characteristics, academic competency support, use of technology in instruction and teaching practices. The gender wise statistically significant difference was also observed for the study variables. The study recommended to analyze the needs and preferences of students from various backgrounds to make the teaching-learning process more inclusive and welcoming for students.

Keywords: Student perception, Institutional support, instructional support, academic competency support

(193) Enhancing distance learning through flipped classroom pedagogy: A case study from a medical laboratory science course

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Following the COVID-19 pandemic, student participation in face-to-face (f2f) study sessions, whether onsite or online, declined significantly at the Open University of Sri Lanka (OUSL). Instead, there was a notable increase in requests for video recordings of online sessions across all disciplines. Hence, OUSL being a single-mode distance education institution with limited f2f sessions per course, faced challenges in fostering knowledge construction through group collaboration and teacher/peer interaction. Therefore, the flipped classroom (FC) pedagogy was introduced (pre-class video lectures, discussions during f2f, post-class online activities). Purpose of this study was to examine student perceptions of the newly implemented FC pedagogy in an Advanced Haematology course of the Medical Laboratory Science degree programme, offered for medical laboratory technicians employed in various hospitals in Sri Lanka. Learner perceptions were gathered through quantitative and qualitative research methods, by administering a questionnaire with close and open ended questions. Further, f2f participation data and online course log reports were also used to corroborate results. Out of 98 students who completed the course, 30% responded to the questionnaire. Online log reports confirmed that almost all students viewing the videos. Despite f2f discussion sessions not being mandatory, attendance rates remained notably high, with a minimum of 60% attendance. Hundred percent (100%) of students agreed that FC arrangement became more useful to engage in learning; liked to have video session before f2f; they spent a very productive and enjoyable time during f2f sessions clarifying doubts and engaging in group activities with peers/teacher. Student engagement in post class online activities were consistently impressive, and 85% of students agreed that it became a habit to engage in online activities just after watching videos or after f2f session. Seventy two percent (72%) of students' agreed that the FC changed their learning strategy. However, some students struggled with procrastination and managing the workload with their routine work at hospitals. For those students, more tailored guidance should be provided to comply with the situation. Overall, findings reveal that FC pedagogy enhanced learner autonomy, empowered collaborative learning and better assisted students' learning.

Keywords: Flipped classroom. Medical Laboratory Science, Blended learning

(194) A Comparative Analysis on Artificial Intelligence Tools That Can Be Used in Open And Distance Learning Systems

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Abstract This article provides a comprehensive overview of Artificial Intelligence (AI) applications in Open and Distance Learning (ODL) systems. The article aims to review the AI tools used in ODL systems, examining their benefits and limitations. These tools have been comparatively examined within the conceptual framework of self-learning and lifelong learning. The characteristics of these applications, both positive and negative aspects, have been compared. While AI offers numerous advantages such as personalized learning experiences, enhanced accessibility, and optimized administrative processes, it also presents challenges like overreliance on technology, algorithmic biases leading to misinformation, and inability to protect student privacy. Although new and updated types emerge every day, the following categories are generally obtained for AI applications that can be used for ODL systems: Intelligent Tutoring Systems (ITS), Automated Assessment and Feedback Tools, Adaptive Learning Platforms, Chatbots and Virtual Assistants, Text-to-Speech and Speech Recognition Tools, Personalized Learning Recommendation Systems, AI-powered Content Creation and Curation Tools, Plagiarism Detection Tools, Proctoring and Online Exam Security Tools, Proctoring and Online Exam Security Tools, Data Analytics and Learning Insights Tools. This article aims to present suitable tools for a personalized, accessible, and effective future of ODL for students, considering the limitations while harnessing the power of AI, and is intended to assist in the design of ODL. Özet Bu makalede, Açık ve Uzaktan Eğitim (AUE) sistemlerinde Yapay Zeka (YZ) uygulamalarının karşılaştırılmalı analizi sunulmuştur. AUE sistemlerinde kullanılan YZ araçlarının avantajları ve sınırlamalarını, kendi kendine öğrenme ve hayat boyu öğrenme kavramsal çerçevesi içinde özetlenmiştir. YZ, kişiselleştirilmiş öğrenme deneyimleri ve artırılmış erişilebilirlik sağlarken, teknolojiye aşırı bağımlılık ve öğrenci gizliliği gibi zorluklar da ortaya koyar. Genel olarak AUE için kullanılabilecek YZ uygulama kategorileri şunlardır: Akıllı Öğretim Sistemleri (AÖS), Otomatik Değerlendirme Araçları, Uyarlanabilir Öğrenme Platformları, Sohbet Botları, Metinten Sese Araçları, Kişiselleştirilmiş Öğrenme Öneri Sistemleri, YZ destekli İçerik Araçları, İntihal Tespit Araçları, Gözetim Araçları, Veri Analitiği Araçları. Bu makalede, YZ'nin gücünü kullanırken sınırlamalarını gözeterek öğrenciler için kişiselleştirilmiş, erişilebilir ve etkili bir AUE geleceği için uygun araçları karşılaştırmak amaçlanmıştır.

Anahtar Sözcükler: Artificial Intelligence (AI), Open and Distance Learning (ODL), Future of ODL.

(195) Human – Artificial Intelligence Symbiosis

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It is feared that the upcoming artificial intelligence revolution will disrupt society in terms of jobs and careers. On the other hand, the approach of empowering humans with artificial intelligence is recommended as an alternative to the option of artificial intelligence replacing humans in daily tasks. The options of redesigning daily cognitive processes to be performed by artificial intelligence or to be designed to be performed by humans powered by artificial intelligence are competing with each other in the business world. In this study, empowering people with artificial intelligence is discussed in the context of lifelong learning, and possible foresight for this future is tried to be obtained. In the research, the development of research on the collaboration of humans and artificial intelligence is examined and the idea of enhancing human cognition, man-computer symbiosis, augmenting human intelligence, and suggestions for intelligence amplification are reviewed. Finally, current studies in the literature on human-artificial intelligence symbiosis are reviewed. To support reducing the possible negative impact of artificial intelligence on individuals' careers, the need to redefine a personal artificial intelligence that can balance central artificial intelligence is put forward. It is shown by using the results of lifelogging research that allows the management of learning experiences that a personal artificial intelligence that meets this need should be based on personal big data produced by individuals' own digital lifelogs, in addition to traditional big data. An artificial intelligence system based on individuals' digital lifelogging systems enables symbiotic learning. In the study, the characteristics of symbiotic learning were determined and the situations that may arise in the mutual teaching/learning process in human-artificial intelligence symbiosis and the potential functions of symbiotic learning were discussed. In the last part of the study, the technology pool that will enable the symbiotic learning architecture outlined is reviewed and attention is drawn to the transformative effect of symbiosis on humans.

Anahtar Sözcükler: Augmenting (and enhancing) human cognitive abilities, Symbiotic artificial intelligence, Symbiotic learning

(197) Insights into Forest Fire Prediction via Big Data Analytics: A Literature Review

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This research papers gives an analysation over the features of the forest fire prediction module that deals with a wide range of complications. Forests can be called as the most crucial and useful part of our planet's atmosphere. they play a very important and purpose full role. Prevention of damages to forests is very important and regular check-ups regarding forests and forest ecology can be helpful in making this planet a living and a healthy planet. To tackle such climate complications and to help us, the people to be cautious regarding the forests and their extreme conditions there exists an essential urge of forest fire prediction system. Big data analytics provides the noticeable support in predicting any type of the event which demands a structural training from the naturally occurring events. Big data analytics can be considered as the most popular and infamous platform for the sake of predictions of naturally occurring events, while the convenience of utilising it along with the computational domination in the array of modules that grabs the attention millions of different types of forests all over globe, which also demands the several technical concerns in different platforms. In this research paper we will be discussing about the prediction of forests fires using big data analytics.

Keywords: Forest fire prediction, Big data analytics, Data analysis, Ecological parameters, Wildfire severity, Forest management, Risk assessment, Machine learning, Satellite monitoring, Environmental protection

(198) Türkiye'de öğretim tasarımı alanında yapılan lisansüstü çalışmaların içerik analizi

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Son yıllarda yaşanan teknolojik gelişmeler, tüm Dünya'yı etkileyen pandemi süreci, doğal afetler birçok disiplini etkilediği gibi eğitim-öğretimi de etkilemiştir. Yapay zekânın hızla ilerlemesiyle bireylerin öğretim ihtiyaçları değişmiş ve pandemi, doğal afet gibi süreçlerde okulların kapanmasıyla uzaktan ve çevrimiçi öğrenme ortamları oluşmuştur (Albaşkara vd., 2024). Bu ortamlarda çok sayıda kişiye kısa sürede ulaşım, bireysel farklılıklara önem verilmesi gibi avantajların yanı sıra internet erişimindeki aksamalar, teknolojik cihazların yokluğu gibi dezavantajları olmuştur. Bu yüzden gerçekleştirilen öğrenmelerin yönetilmesi ve planlanması konusu gündeme gelmiştir. Değişen ihtiyaçlar, ortamlar, avantajlar ve dezavantajlar öğretim tasarımı kavramının önemini göstermiştir. Öğretim tasarımı alanında yapılan lisansüstü çalışmaların incelenmesi yeni öğrenme kuramlarının öğretim tasarımını nasıl etkilediğine yönelik bilgi verecektir. Bu bağlamda çalışmanın amacı Türkiye'de öğretim tasarımı alanında yapılan lisansüstü çalışmaların yayın yılları, türleri, yayınlandığı anabilim dalı, araştırma yaklaşımları, araştırma grupları, veri toplama araçları ve veri analiz yöntemleri bakımından incelemektir. Çalışmada, nitel veri yaklaşımlarından derleme (alanyazın taraması) türünde hazırlanmış ve doküman analizi yönteminden faydalanılmıştır. Çalışmanın örneklemini 2003-2024 yılları arasında Ulusal Tez merkezinde erişime açık şekilde yayınlanmış tezler oluşturmaktadır. Bu kapsamda erişime açık 74 adet tezin içerik analizi yapılmıştır. Araştırmada elde edilen sonuçlar; öğretim tasarımı çalışmalarının son yıllarda arttığı, Yüksek Lisans türünde daha fazla olduğu, Eğitim Bilimleri anabilim dalında, nicel araştırma yaklaşımının daha fazla tercih edildiği, araştırma grubu olarak ortaokul öğrencilerinin daha fazla seçildiği, veri toplama aracı olarak en çok başarı testlerinin kullanıldığı ve veri analizinde içerik analizi yönteminin daha fazla tercih edildiğidir. Çalışmanın bulgularına yönelik önerilerde bulunulmuştur.

Anahtar Sözcükler: öğretim tasarımı, içerik analizi, lisansüstü

(199) Innovative poetic thinking in cursive teaching

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Innovative poetic thinking in cursive teaching Zhuleigang Abstract: Training students to keep cursive artistic intuition is an effective way to keep art alive, intuition is not to reason. The artistic intuition of cursive is the instantaneous selective expression of the creator's overall memory (including muscle memory). How can the viewer allocate aesthetic experience between the parts of cursive works and the expressive intention of the creator? To train students to find that the poetic beauty of cursive is mainly manifested in the beauty of rhythm and beauty of form, and more importantly, the boundary and possibility of cursive are formed and expanded by the two. Encouraging and stimulating students' cursive poetic creative thinking is a dynamic deduction process of emotional indication, which expresses what poetry cannot express. Emotional indication is a more accurate indication for cursive creation by the creator. Dynamic deduction is the deductive tendency of cursive writing behavior and writing trace. Key words: Innovative cursive teaching; cultivating cursive intuition; stimulating poetic thinking Training students to maintain the artistic intuition of cursive 1, intuition is not to reason. The creator just intuitively interprets the creation process of the work, and does not need to consider the needs of the audience, which will bring unexpected joy to the audience. Therefore, the creator to maintain intuitive creation is an effective way to maintain the vitality of art. 2.Cursive has the basis of artistic intuition. Intuition will be closer to the creator's ID because of the creator's emotional changes or mood fluctuations. 3.The artistic intuition of cursive is the instantaneous selective expression of the creator's overall memory (including muscle memory). Cultivate students to discover the poetic beauty of cursive 1.The poetic beauty of cursive is generally manifested in the beauty of rhythm and form. 2.Compared with the formlessness of poetry, the traces left by the brushstrokes of cursive are still invisible. 3.The body of cursive is the carrier of imagination and subjective emotion. Encourage and stimulate students' cursive poetic creative thinking 1.Poetry can express what poetry cannot express. 2. cursive poetic creative thinking is not only related to poetry and poetry 3. poetic thinking makes the creator unable to get rid of the stylized assumption into the expression of emotions

Keywords: ODL teaching innovation、Adaptive learning environment in ODL、Deep learning applications in ODL

(201) Next Generation Teacher Training: The VR Skills Acquisition Project for Educators

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This study aims to report on the outcomes of a teacher training program designed to enhance educators' abilities to use virtual reality (VR) and develop VR-based educational materials. The findings are derived from the project titled "Development of the Training of Trainers Program and Good Practices Guideline for Virtual Reality Environments" which was funded under the TÜBİTAK 3501 Career Development Program. Initially, a needs analysis was conducted to inform the preparation of the teacher training program. In this context, interviews were held with teachers who had previously received VR training or had the opportunity to use VR in their classes. Subsequently, a 60-hour training program, consisting of six modules and aligned with 20 learning outcomes, was developed based on feedback from experts in educational technologies and curriculum design. Following a nationwide announcement, 42 teachers were selected through purposive sampling from 444 applicants to participate in the project. The training, which was delivered through both synchronous and asynchronous online sessions, spanned 14 weeks. The first four modules of the training focused on practical training in developing VR environments. In the fifth and sixth modules, participants were divided into seven groups of six, each guided by subject matter experts, to develop VR-based projects. These group activities resulted in the creation of five projects across various disciplines. The developed projects were assessed using a product evaluation rubric created by the research team. Additionally, these projects were integrated into the EVRECA platform. The analysis using the product evaluation rubric revealed that participants, initially with limited VR and technical knowledge, acquired significant skills and knowledge through the training program. Similarly, post-training evaluations indicated that participants reached a level capable of developing VR-based educational materials, and the training process positively contributed to their professional development. This study offers practice-oriented recommendations on integrating VR technologies into education and aims to contribute to the literature by outlining the effectiveness of such integrations.

Keywords: Virtual reality, teacher training, technical skills, program development, best practices

(202) How network analysis can thematize students' ideas on infodemic: a case from an online science literacy course

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Amid the COVID-19 pandemic, our science literacy and technology course was administered within the online learning environment. Science literacy is an essential skill that requires students to obtain critical thinking toward the incorrect information such as the infodemics, a social phenomena during the pandemic situation. Studying the students' interaction without face-to-face communication always challenges our educators. Undoubtedly, the big amount of data can be harvested by the learning management system (LMS) as the main features of the past COVID-19 learning. In this study, students' ideas of infodemics were recorded and qualitative thematic analysis using the network analysis paradigm (thematic network analysis, TNA) was employed. The goal of the study was intended to extract the emerging topic of students' textual data about the infodemics and to distinguish those students' ideas among their respective majors. Textual data on a midterm week was gathered using an open-ended survey item from Fall Semester 2021 to Fall Semester 2022. A size of 279 students' written answers from four non-science departments (accounting, marketing, dance, and fashion) was analyzed using TNA through the Gephi software. Our TNA identified five unique topics of students' perspectives related to the infodemics phenomena. They encompassed information validity, scientific attitude, the characteristics of the infodemics, the importance of literacy competence, and social responsibility. It was evident that students' majors could be a potential factor influencing the extracted students' ideas. Based on the qualitative tradition, thematic analysis illuminates the latent entity of the participants' ideas based on the analyzed interaction between the coded data (verbatim). If our data is in textual form, our TNA thus can be approached to unpack this textual pattern without disregarding the nature of qualitative investigation. TNA protocol presented by this paper offers analytical alternatives of qualitative research methodology in a more robust, reliable, and reproducible way.

Keywords: Network analysis, Qualitative study, Thematic analysis, Infodemic, Science literacy

(203) Understanding International Context through the Lens of BPSU Alumni Teaching Overseas: Basis for Internationalization Plan of the College of Education

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This research probes into the life stories of 15 alumni from Bataan Peninsula State University who pursued teaching careers abroad after completing their bachelor's program. Employing a narrative inquiry research design, the study explored the unique experiences of 10 female and 5 male participants. Overarching themes emerge, illustrating the multifaceted skills and knowledge acquired during their four-year stay in the bachelor program. The alumni's narratives reveal significant insights into their professional development, in areas such as Exposure to International Experiences, Filipino Identity in Teaching English, Training and Professional Competence, Continuous Learning, Language Barrier Challenge, and Lack of Intentionality in Internationalization. In alignment with the Commission on Higher Education's (CHED) directives outlined in CHED Memorandum Orders 55 and 62 series of 2016, which advocate for the internationalization of Philippine higher education, the research emphasizes the importance of explicitly integrating internationalization concepts into education and major courses. As per CMO 55, internationalization involves infusing international, intercultural, and global dimensions into higher education's objectives, functions (teaching, learning, research, and service), and delivery. This includes exchanges and partnerships between nations, national systems of higher education, and higher education institutions. The study identifies this integration as a valuable skill for preparing graduates to address the challenges and opportunities in the globalized education setting, aligning with the broader goals set forth by CHED for the internationalization of Philippine higher education.

Keywords: Internationalization, Global Education, Overseas Teaching, International Education

(204) Development of Interactive Learning Multimedia for Object-Oriented Programming:
A Didactic Design Research (DDR) Approach

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The Independent Curriculum Initiative empowers teachers to foster creativity and improve academic abilities, enabling them to use effective teaching methods and media. However, in practice, these ideals are not always in line with reality. Some teachers prepare lesson plans without adequately considering teacher perceptions and potential student responses, thereby creating learning obstacles and misunderstanding of the material, which ultimately prevents students from achieving the Minimum Completeness Criteria (KKM). This research aims to design and develop a didactic approach to improve learning outcomes and reduce learning barriers in Object Oriented Programming (OOP). This research uses the Didactical Design Research method with a One Group Pretest and Posttest research design. The findings show an increase in student cognitive learning outcomes through the application of website-based didactic and multimedia learning designs. However, students still encounter learning obstacles, especially epistemological, ontological and didactic ones, especially in applying material concepts into programming languages. Assessment of student responses to learning media resulted in a rating of 82.72%, which indicates a very good level of acceptance.

Keywords: Didactic Design, Learning Outcomes, Object-Oriented Programming

(205) Charting Educational Evolution: Adapting the COVID-19 Era and Beyond in Open and Distance Education

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In the wake of the COVID-19 epidemic, there was a dramatic change in the educational landscape, specifically open and distance learning. The present research analyzes the development of education both before and after COVID-19, emphasizing the implications of emerging technologies, digital equity challenges, and the use of artificial intelligence (AI) in the educational setting. Beginning from a historical perspective, we discuss the increasing digital gap and the enduring psychological repercussions of COVID-19 as we track the development of education while looking at its seismic impact. Leveraging technology as a driving force for advancement in education, we explore the revolutionary possibilities of digital tools and the development of 21st-century competencies in the digital domain. Rethinking online education via the prism of Bloom's Taxonomy, we investigate strategies to advance digital equity and inclusive access to education for everyone involved. Furthermore, we delve into how AI may redefine the dynamics between learners and educators, promote personalized learning, and assist traditional and distance-learning institutions navigate the opportunities and challenges of integrating AI. The paper delivers insights into the intricate context of educational transition and envisions future trajectories for open and distance education in a world that is rapidly evolving through stakeholder perspectives and provides practical recommendations.

Keywords: Educational Evolution, Technological Advancements, AI in Education,COVID-19 Impact, Open and Distance Education, Digital Equity, Technological Integration

(206) Öğrenme analitiği üzerine bir yolculuk: Kapsamlı bir Bibliyometrik Analiz Çalışması

Gamze Levent

Gürhan Durak
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Zeynep Yavuz

Hüseyin Emre Yaman

Eylül Esinbay

Bu bibliyometrik çalışma, 2013 ile 2023 yılları arasında Web of Science ve Scopus veri tabanlarında indekslenmiş Öğrenme Analitiği (Learning Analytics) üzerine yapılan akademik çalışmaları kapsamlı bir şekilde analiz etmeyi amaçlamaktadır. Yayınlar ve atıflar üzerinden ülkeler, kurumlar, akademik dergiler ve yazarlar arası eğilimler ve işbirlikleri belirlenmiştir. Çeşitli bibliyometrik teknikler uygulanmış, her bir analizin arkasındaki motivasyonlar ve bulguların nasıl elde edildiği belgelenmiştir. Bulgularımız, ÖA konusundaki çalışmaların zamanla önemli ölçüde arttığını göstermektedir; ABD ve Avustralya, araştırma çıktıları açısından en yaygın ülkeler olarak öne çıkmaktadır. Özellikle ABD'deki kurumlar bu alanda küresel çapta öne çıkmaktadır. Eğitim alanında öncü dergiler, LA araştırmalarının yayılması için belirgin platformlar olarak ortaya çıkmıştır. Bununla birlikte, yazarlar arası işbirliği belirli kümeler içinde yoğunlaşırken, önemli ölçüde bireysel katkılar da gözlemlenmiştir. Çalışma, ÖA'nın tematik yapısını haritalamak ve araştırma odaklarının nasıl evrildiğini izlemek için anahtar kelime analizini de içermektedir. ÖA'yı inceleyenler için, bu çalışmadan elde edilen bilgiler, en etkili konular ve ana araştırma alanları hakkında değerli bilgiler sunmaktadır.

Anahtar Sözcükler: Öğrenme Analitiği, bibliyometrik analiz, bibliyografik eşleme, ortak yazarlık analizi, ortak atıf analizi, eş-zamanlı kelime analizi

(207) Eğitimde Üretken Yapay Zekanın Geleceği: Teorik Bir Yaklaşımla Öğrenicilerin Görüşlerine İlişkin Karşılaştırmalı Bir Durum Çalışması

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Salih İncemen

Bu çalışma, 2 haftalık bir Generative artificial Intelligence (GenAI) eğitimi kapsamında katılımcıların eğitim öncesinde ve sonrasında GENAI'ya yönelik algılarını ve beceri durumlarındaki değişimleri karşılaştırmalı olarak ele almıştır. Çalışmanın temelini oluşturan 6 farklı kuram, katılımcılarla yapılan görüşme sorularının oluşturulmasında ve bulguların yorumlanmasında detaylıca uygulanmıştır. Çalışmanın katılımcıları Türkiye'deki bir farklı lisans programlarında yer alan 12 öğrenciden oluşmaktadır. Yarı yapılandırılmış görüşmeler ve yapılandırılmış gözlemler ile desteklenen bu çalışma, öğrencilerin GENAI ile ilgili teknik becerilerinin ve kullanım niyetlerinin değişimini değerlendirmeyi amaçlamıştır. Çalışma sonuçları, eğitimin katılımcıların GENAI teknolojilerine yönelik yeterlilik algılarını ve motivasyonlarını önemli ölçüde iyileştirdiğini göstermiştir. Öğrencilerin teknolojiye olan özgüvenleri artmış ve pratik uygulamalara daha fazla ilgi duymuşlardır. Ayrıca, GENAI'nin eğitimdeki rolünü ve olası etkilerini daha gerçekçi bir perspektifle değerlendirdikleri belirlenmiştir. Bu bulgular, GENAI teknolojilerinin eğitimde etkin kullanımını ve öğrencilerin bu yeni araçları eğitim süreçlerine entegre etme becerilerini geliştiren programların önemini vurgulamaktadır.

Anahtar Sözcükler: Algı, motivasyon, üretken yapay zeka, yetenek

(208) Problemli İnternet Kullanımının İlkokul ve Ortaokul Sınıf Ortamlarına Etkilerinin Karşılaştırılması

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Teknolojinin gelişmesiyle birlikte günümüzde insanlar bilgiye kolay bir şekilde ulaşma, rutin işlerini kolaylaştırma ve ihtiyaçlarını karşılamada internetten yararlanmaktadır. İnternet ortamı bireylere çeşitli avantajlar sunmaktadır. İnternetin yaygın kullanımı bireylere birtakım avantajlar sağlamasının yanında birtakım olumsuzluklara da sebep olmaktadır. Çünkü bazı bireyler internet kullanımını sınırlandırabilirken, bazı bireyler internet kullanımını sınırlandırmakta güçlük çekmektedir. Bu durum da problemli internet kullanımı kavramını ortaya koymaktadır. Problemli internet kullanımı; bireyin internet ortamında olmadığı zamanlarda kendini iyi hissetmemesi, bireyde yoğun internet kullanımı olumsuz duyuşsal, bilişsel davranış belirtilerinin ortaya çıkması, bireyin akademik, mesleki sorunlarla karşı karşıya kalmasıdır. Nitel araştırma yöntemlerinden durum çalışması ile gerçekleştirilen çalışmada problemli internet kullanımının ilkokul ve ortaokul sınıf ortamlarına etkileri araştırılmıştır. Katılımcılar, Zonguldak ilinde Milli Eğitim Bakanlığına bağlı ilkokul ve ortaokullarda görev yapan kadrolu öğretmenlerdir. Öğretmenlerle yapılan görüşmeler sonucunda internet kullanımının okul öncesi eğitime kadar gerilediği, öğrencilerin internet ortamıyla çok daha erken yaşlarda tanıştıkları ve küçük yaşlarda internet ortamıyla birlikte meydana gelen bir takım olumsuzlukların tespit edilmemesi halinde artarak devam ettiği görülmektedir. Problemli internet kullanımında pek çok faktörün etkili olduğu görülmektedir. İlkokul ve ortaokul öğrencilerin gelişim ve yaş grubu özelliklerinin farklı olması nedeniyle problemli internet kullanımının sınıf ortamında oluşturduğu etkiler de farklılaşmaktadır. İlkokulda problemli internet kullanımı sınıf ortamını orta şiddette etkilerken, ortaokulda bu oran yüksek şiddettedir. Problemli internet kullanımı ilkokulda sınıf yönetimini çok fazla etkilememekte fakat ortaokullarda sınıf yönetimi zorlaştırmaktadır. Sınıf yönetimi konusunda tecrübeye sahip olmayan veya sınıf yönetimi konusunda yeterli olmayan öğretmenler, bu durumla baş etmede çözüm kalmaktadır. Problemli internet kullanımı akran ilişkilerini olumsuz yönde etkilemekte, özellikle ortaokullarda akran zorbalığı sonucu oluşan olumsuz davranışlar sınıf ortamını da bozmaktadır. Bu durum öğrencilerin derse katılımlarını ve derse karşı motivasyonlarını da olumsuz yönde etkileyerek akademik başarıyı düşürmektedir. Problemli internet kullanımına sahip olan öğrenciler sınıf kurallarına da uymamakta, bu durum olumsuz bir sınıf iklimine yol açmaktadır. Problemli internet kullanımına sahip olan öğrencilerin sahip olduğu davranış özelliklerini ve çözüm yollarını bilmek, öğretmen adaylarına da kolaylık sağlayacaktır. Problemli internet kullanımının ailelerden kaynaklandığı görülmektedir. Okullarda rehber öğretmenlerin bu konuda çalışmalar yapması, ailelerin internet kullanım süresini kısıtlamaları, ailelere internetin bilinçli kullanımına yönelik eğitimler verilmesi önerilmektedir.

Anahtar Sözcükler: problemli internet kullanımı, sınıf ortamı, etki.

(209) Öğretmen Adaylarının Dijital Okuryazarlık Düzeyleri ile Yapay Zeka Okuryazarlığı Düzeyleri Arasındaki İlişkinin İncelenmesi

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Dijital vatandaşlık ISTE'nin tanımladığı gibi 21.yüzyıl bireylerinin özelliklerden bir tanesidir. Dijital vatandaşlığın ortaya çıkması ile beraber her dijital vatandaşın sahip olması gereken özellikleri bulunmaktadır. Dijital okuryazarlık, dijital vatandaşlığın en önemli özelliklerinden birisi haline gelmektedir. Yapay zekanın günümüzde ve yakın gelecekte insan hayatının farklı yönlerinde (ticari işler, eğlence sektörü vb.) etkili olacağı konusunda görüşler yaygınlaşmaktadır. Eğitim alanında öğrencilerin davranışlarından, okulların eğitim kalitesini artırabilecek birçok farklı amaçla yapay zeka kullanılabilir. Fakat araştırmacılar bu yeniliklerden daha çok yapay zekanın anlaşılmasına yönelik özellikle makinelerle iletişim kurma, günlük hayatta makineleri kullanabilmesi için yetkinliklerin olması gerektiğine dair çalışmalardan bahsetmektedirler. Yapay zeka alanındaki yeterlilikleri ifade eden kavrama yapay zeka okuryazarlığı (AI Literacy) adı verilmektedir. Bu çalışma kapsamında öğretmen adaylarının dijital okuryazarlığın bilişsel, teknik ve sosyal-duygusal boyutları ile yapay zeka okuryazarlığının farkındalığı, kullanımı, değerlendirmesi ve etiği arasında anlamlı bir farkın olup olmadığı incelenmektedir. Araştırmanın evreni Bursa'da bir devlet üniversitesinde bulunan eğitim fakültesi öğrencileri üzerine araştırma yapılmıştır. Google Form aracılığı ile öğrencilere ulaşılmıştır. Yapılacak olan bu çalışma deneysel olmayan nicel araştırma tasarımı olmakla beraber, ilişkisel tarama modeline başvurulmuştur. Geçerliliği ve güvenilirliği kanıtlanmış olan iki ölçek bu çalışma kapsamında kullanılmıştır. Ölçeklerden bir tanesi Ng(2012) tarafından hazırlanmış olan ve Türkçe'ye uyarlamasını Üstündağ ve arkadaşları(2017) tarafından yapılmış olan dijital okuryazarlık ölçeğidir. Cronbach Alpha değeri 0.86 olan bir ölçektir. Diğer ölçek ise Çelebi ve arkadaşları tarafından 2023 yılında geliştirilmiş olan yapay zeka okuryazarlığı ölçeğidir. 12 maddelik olup ölçeğin alt boyutları için sırasıyla 0.72, 0.74, 0.76, 0.72 değerlerine ulaşılmıştır. Ölçeğin tümü için 0.85 iç tutarlılık katsayısı hesaplanmıştır. Korelasyon analizi yapılarak, dijital okuryazarlık ile yapay zeka okuryazarlığı ölçeği hakkında anlamlı bir ilişkinin olup olmadığı araştırılacaktır. Regresyon analizi sonucunda ise dijital okuryazarlığın yapay zeka okuryazarlığı "üzerinde olumlu bir etkisinin olup olmadığı araştırılacaktır.

Anahtar Sözcükler: Yapay Zeka Okuryazarlığı,, Dijital Okuryazarlık,, Öğretmen Eğitimi,,

(210) Öğretmenlerin kaynaştırma eğitimindeki yeterlilik düzeyleri ile bireyselleştirilmiş eğitim programı hazırlama ve uygulama süreçlerinin incelenmesi

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Bu çalışma, ortaokul öğretmenlerinin, kaynaştırma eğitimine ilişkin yeterlik düzeyleri ile bireyselleştirilmiş eğitim programı hazırlama ve uygulama süreçlerini incelenmeyi amaçlamaktadır. Araştırmanın örneklemini 2021-2022 Eğitim Öğretim yılında Balıkesir İli Altıeylül İlçesinde görev yapan ortaokul branş öğretmenleri oluşturmaktadır. Araştırmada karma araştırma yöntemlerinden Açımlayıcı sıralı desen kullanılmıştır. Araştırmanın nicel verilerini Hollender (2011)tarafından geliştirilen ve Meral ve Bilgiç tarafından Türkçeye uyarlanmış olan "Kaynaştırmada Öğretmen Yeterliği" ölçeğinden elde edilen veriler oluştururken nitel verilerini ise araştırmacı tarafından geliştirilmiş olan yarı yapılandırılmış görüşme formundan elde edilen veriler oluşturmaktadır. 10 farklı branştan 257 ortaokul öğretmeninden toplanan nicel veriler betimsel istatistikler, t-Testi, varyans analizi ile analiz edilirmiş ve sonucunda; kaynaştırma eğitim yeterliliği açısından en yüksek olan branşın Görsel Sanatlar olduğu, öğretmen yeterliklerinin, branş, cinsiyet, kıdem yılı, sınıf mevcutları, sınıfta kaynaştırma öğrenci bulunma durumu, hizmet içi eğitim ve lisansta özel eğitim dersi alma durumuna göre anlamlı farklılık göstermediği, okulda rehber öğretmen bulunma durumu açısından anlamlı bir farklılık gösterdiği sonuçlarına ulaşılmıştır. 10 farklı branştan 17 öğretmen ile yapılan görüşmeler sonunda elde edilen nitel verilerin çözümlenmesi için ise içerik analizi kullanılmış ve öğretmenlerin BEP hazırlarken öğrencilerin hazırbulunuşluk düzeyleri ve RAM raporunu dikkate aldıkları, bunların yanında sınıf içi gözlemler ve hazırbulunuşluk sınavından faydalandıkları, rehber öğretmen, zümre öğretmenler, diğer branş öğretmenler ve öğrenci velileriyle iletişim kurdukları sonuçlarına ulaşılmıştır. Ayrıca öğretmenlerin büyük bir çoğunluğu, online platformdaki hazır programları kullandıklarını ya da mevcut öğretim programındaki kazanımları sadeleştirerek BEP hazırladıklarını, az sayıda öğretmen ise BEP hazırlarken öğrencilere ait önceki yıllarda hazırlanmış BP'leri, ilgili yönetmeliği ve diğer kaynak kitapları kullandıklarını, ek olarak BEP hazırlama sürecinde zorluk yaşamadıklarını belirtmişlerdir. Bunlara ek olarak nitel verilerden elde edilen diğer sonuçlar ise öğretmenlerin BEP Hazırlama ve uygulamada pek çok zorluk yaşadığı ve bu alanda çok fazla düzenleme yapmadıkları yönündedir.

Anahtar Sözcükler: Kaynaştırma Eğitim, Öğretmen Yeterliliği,, Bireyselleştirilmiş Eğitim Programı

(211) Bridging the Gap: A Comparative Analysis of Human Graders and a Large Language Model in Assessing English as a Foreign Language (EFL) Journal Writing in Secondary School

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This study attempts to conduct a comprehensive analysis of the assessment of journal writing in English as a foreign language (EFL) at the secondary school level. It aims to compare the performance of a generative Artificial Intelligence (GAI) platform with that of two human graders. The study uses a convergent parallel mixed methods design combining quantitative and qualitative data collection and analysis approaches. Quantitative data were collected through the evaluation of 389 assignments of 91 students in a private school in Istanbul during the first semester of the 2023-2024 academic year using the Generative Artificial Intelligence (GAI) platform and human graders. Qualitative data were collected through the analysis of feedback provided by both the GAI platform and human graders. The study aimed to compare the performance of the GAI platform in grading student papers with the performance of human graders, to assess the consistency and effectiveness of the GAI platform, and to examine the quality of the feedback provided by both the GAI platform and human graders. The results showed a high level of agreement between the GAI platform and human graders, suggesting that the GAI platform can effectively simulate the role of an English teacher in an English as a Foreign Language (EFL) learning context. In addition to the importance of referrals in communication with GenAI, the research also explored potential changes in assessment outcomes upon changing prompts to GAI.

Keywords: AI-driven Assessment, Human vs. AI Grading, Generative AI, Assessment in Education, Prompt Engineering ,

(212) The Impact of ChatGPT on Self-Regulated Learning in Calculus Education: A Study with Engineering Freshmen

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In recent years, there has been a significant increase in the development of artificial intelligence (AI) technologies aimed at fostering students' self-regulated learning and proactive engagement in digital learning environments. Educators, teachers, and faculty members are faced with AI entering education suddenly, with AI tools producing more complex content than previous technological advancements. This study examines the effects of implementing ChatGPT (currently the most widely used generative AI tool) as a mathematics learning tool on the calculus education of first-year engineering students. The study was conducted with 20 participants enrolled in the first year of the engineering faculty at a university in Bosnia and Herzegovina. Participants were selected based on their low academic achievement in the "Calculus I" course and were randomly chosen. Students were provided with an activity sheet prepared by the researcher and were asked to formulate their own questions and use ChatGPT to solve them. The collected data were qualitatively gathered and analyzed. A two-week "Calculus I program" created with AI was implemented for the students. The results indicated that the program facilitated students' grasp of concepts in "Calculus I," promoted deep learning among students, and significantly enhanced their participation and motivation. The study revealed that students found the AI-generated program helpful for their individual learning and easy to use. However, caution was emphasized regarding the use of ChatGPT, particularly highlighting the potential for misguidance and fostering incorrect learning when concepts and theorems are not fully understood. The findings suggest that the majority of students support the use of ChatGPT in mathematics learning. These results provide valuable guidance for AI developers and educators seeking to optimize the effectiveness of AI-driven tools in fostering successful online science learning experiences.

Keywords: Artificial intelligence, ChatGPT, calculus education, online learning, educational technology

(213) Enhancing Pre-Classroom Learning: Exploring Vector Concepts through Video Explainer Activities

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This study aims to explore students' concept images of vectors prior to classroom meetings using a self-learning approach based on video explainers. With the background of the credit semester system in Indonesia, which emphasizes self-learning, face-to-face meetings, and structured assignments, this research utilizes the self-learning component to investigate students' understanding of vector concepts. By delivering video explainers in Learning Management Systems (LMS), students are tasked with independently studying vector concepts and expressing their understanding through narration and responses to conceptual questions. Analysis of students' responses reveals that the majority perceive vectors as mathematical objects representable by directed arrows or ordered pairs of values. Consequently, the conclusion drawn is that students' concept images of vectors are predominantly limited to vectors in $\mathbb{R}^n$.

Keywords: Vector, Concept Image, Video Explainer, Pre-Classroom Activities.

(214) Skin Cancer Detection Using Machine Learning and Face Recognition

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Skin cancer is a common, potentially fatal illness that requires early discovery to effectively cure. DermAI is a new deep learning system that uses Convolutional Neural Networks (CNNs) to evaluate dermatological photos in order to meet this requirement. We describe the creation and assessment of DermAI in this work, emphasizing its potential for early skin cancer diagnosis. A wide range of skin lesion images, including both benign and malignant cases, are used to train DermAI. The model performs well on testing and validation datasets, showing excellent sensitivity and accuracy in differentiating between benign and malignant skin lesions. Dermatologists could benefit greatly from this accuracy in helping them make prompt and precise diagnosis judgments. DermAI has the potential to improve patient outcomes by alleviating the workload of medical practitioners, increasing diagnostic precision, and facilitating early intervention through the automated examination of skin lesions. However, it is imperative to recognize the limitations of the model and stress its intended use as a supplementary instrument in lieu of clinical experience. The machine learning component utilizes a deep learning model trained on a diverse dataset of skin images to accurately classify skin lesions into malignant and benign categories. The model is designed to continuously improve its accuracy through ongoing learning and adaptation. This approach not only streamlines the diagnostic process but also reduces the dependence on invasive procedures for skin cancer screening.

Keywords: DermAI, Deep learning, Skin cancer, Early detection, Convolutional Neural Networks (CNN), Dermatological images

(215) Use of Educational Technology by Social Studies Teachers During The COVID-19 Pandemic

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The aim of the research was to create a list of the most beneficial educational technologies for the pandemic period and beyond, along with explanations of their functions, in a way that social studies teachers could find out what to use and how to use it. The research group consisted of social studies teachers working in schools in Germany, Turkey, the Czech Republic, Egypt, and the USA. These countries were selected because academics known in these countries facilitated contact with teachers. The research is based on two qualitative content analyses chosen by social studies teachers. The first content analysis was conducted through text language analysis, calculating the frequency of educational technology and providing data. The second content analysis established thematic clusters of educational technology based on its function. The research shows that remote learning has undergone many changes due to the COVID-19 pandemic. Despite the loss of physical presence, technology has helped education continue through web-based software solutions, enabling educators to maintain and even improve the quality of teaching and learning. With the pandemic, the use of collaborative, communicative, interactive synchronous tools, and portable devices has increased from an environment where asynchronous remote learning tools were mostly used in the past. Additionally, it has diversified educational software solutions, providing more tools for similar functions related to this situation. The research provides a wide dataset on social studies teachers' use of educational technology, thus offering recommendations for global teaching practices.

Keywords: Distance learning, educational technology, pandemic, social studies teacher

(216) Coding vs computing: Conceptual understanding through digital and unplugged activities for vocational high schoolers

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Understanding of foundational concepts has become ever more important in the age of generative AI. However, skills acquisition seems to prevail at the expense of deep understanding, especially in the computer science (CS) class. Beginner programmers' conceptual difficulties persist (Franklin et al., 2017; Grover et al 2019; Hwang et al., 2023, Jacob & Warschauer, 2018), exacerbated by language barriers (Yadav et al., 2016, Prasad et al., 2022), especially for vocational high schoolers specializing in programming (Yükselturk & Altıok, 2017). To support conceptual understanding at the vocational high school, a 3-week intervention was developed, based on Grover et al. (2019), after needs analysis conducted with 6 teachers from 3 schools in Istanbul. Five CS concepts, algorithm, variables, loops, expressions, and abstraction were addressed in five modules consisting of digital and/or unplugged activities, which were implemented by the teacher at the beginning of the Fundamentals of Programming class in the 9th grade. Data were collected from 12 students before and after the implementation using the Turkish version (Polat et al, 2021) of the Computational Thinking (CT) test developed by Román-González et al (2017), and a CT self-efficacy scale (Korkmaz et al, 2017). An adapted version of Grover et al. (2019)'s assessment was used to assess concepts taught. The sessions were observed for fidelity of implementation, and all students were interviewed upon completion. User logs from digital activities, and student artifacts were also collected. The results of a Wilcoxon signed-rank test revealed a statistically significant difference in the CT test scores, with a large effect size ($r = -0.742$), $p < .050$, and no significant difference in CT self-efficacy. A preliminary analysis of the user logs and student artifacts supported the findings from the quantitative data. The interview data is still under analysis. A further analysis is expected to reveal beginners' conceptual development and how to support their learning processes.

Keywords: Teaching computing, conceptual understanding in CS, learning programming, vocational high school

(218) The Impact of Artificial Intelligence on Open and Distance Education: Revolutionizing Learning Experiences and Overcoming Access Barriers for Rural Area Students

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Abstract The integration of artificial intelligence (AI) technologies in open and distance education has emerged as a beacon of hope for addressing the educational inequities faced by students in rural areas. This research proposal delves into the transformative potential of AI in revolutionizing pedagogical practices and overcoming access barriers for rural area students, who often contend with geographical remoteness, limited resources, and socioeconomic disparities. By scrutinizing the intersection of AI and open education within rural contexts, this study aims to unravel how AI-driven interventions can personalize learning experiences, foster inclusivity, and catalyze educational empowerment in underserved communities. Through a meticulous blend of qualitative inquiry and quantitative analysis, this research endeavors to unearth the nuanced perceptions, experiences, and challenges of educators, students, and stakeholders engaged in AI-enhanced educational initiatives in rural areas. By synthesizing empirical evidence and actionable insights, this study seeks to furnish policymakers, educators, and stakeholders with evidence-based recommendations for harnessing the transformative potential of AI to cultivate a more equitable and accessible educational landscape for rural area students.

Keywords: Artificial Intelligence, Open and Distance Education, Rural Area Students

(219) Uzaktan Eğitim Merkezlerinde Akademik Personel İstihdamı İçin Aranan Özelliklerin İncelenmesi

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Eğitim teknolojilerindeki gelişmelerden dolayı yükseköğretimde uzaktan eğitim merkezlerine (UZEM) olan ihtiyaç her geçen gün artmaktadır. Bunun bir yansıması olarak Covid-19 pandemisi sonrasında yükseköğretim kurumlarındaki UZEM'lerin sayısında önemli bir artış olduğu belirtilmektedir. UZEM'lerin personel yapısı müdür, müdür yardımcıları, öğretim görevlileri ve memurlar olarak düzenlenmiştir.. Merkezlerde görev alan öğretim görevlilerinin istihdam edilebilmesi için 2547 sayılı kanun kapsamında Resmi Gazetede personel ilanı verilmektedir. Covid-19 pandemisindeki acil uzaktan öğretim dönemiyle beraber Resmi Gazete üzerinden birçok akademik personel alım ilanı yayınlanmıştır. Bu çalışmada, acil uzaktan öğretimin ilan edilmesini takip eden 1 yıl içerisinde Resmi Gazete'de yayınlanan UZEM'e yönelik akademik personel ilanlarının incelenmesi gerçekleştirilecektir. Çalışma 2020 yılı sonrasında gerçekleştirilmiş öğretim görevlisi alım ilanlarında aranan şartların incelenmesiyle gerçekleştirilecektir. UZEM'lerde hangi programlardan lisans, yüksek lisans ve doktora mezuniyet şartlarının gerekli olduğu, aranan tecrübe yılı ve hangi yeterliliklerin gerekli olduğu ortaya konulacaktır. Çalışma nitel araştırma yöntemlerinden biri olan durum çalışması olarak desenlenmiştir. Durum çalışmaları doğası gereği belirli zaman aralığındaki bir durum hakkında gerçekleştirilen çalışmalardır. Bu çalışmada Resmi Gazetede yayınlanan uzaktan eğitim merkez ilanları bir durum olarak belirlenecektir. Çalışmanın bulguları betimsel olarak sunulacaktır. Çalışmanın uzaktan eğitim alanında kariyer planlayanlar için yol gösterici olacağı düşünülmektedir.

Anahtar Sözcükler: Uzaktan eğitim, acil uzaktan öğretim, akademik personel, istihdam, insan kaynakları yönetimi

(220) Educating Educators on Substance Use Prevention: Insights from the Hybrid Approach

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Background The school-based drug prevention training program under study is about the combined application of an online learning format and a face-to-face traditional session. The prevention course adopted the online Universal Prevention Curriculum Core Course for Practitioners with the permission of the Colombo Plan Drug Advisory Program. This study aims to identify the factors that facilitated or impeded the successful implementation of a hybrid learning approach in a school setting among academicians. Method Twelve faculty and staff from a university completed the e-course developed through the Colombo Plan designed to last for 10 weeks using the HeK platform. The in-person class, on the other hand, was designed and implemented for the first time, by the master trainers. Originally, 17 signed up for the course but 5 were unable to complete the course. Two FGDs were conducted to bring to fore their experiences and insights about their learning journey. Results Results show a significant moderate increase in the scores of the participants from the pretest to the post-test. There was an increase in the scores of the participants from the pretest (M = 17.92, SD = 2.69) to the post-test (M = 21.67, SD = 1.43) using the Wilcoxon signed rank test (z = -2.71, p = .007). The mean increase in the scores is 3.75. The qualitative data from the FGDs, on the other hand, highlighted the advantages and limitations of the online course combined with a face-to-face session. Four major themes emerged from the group discussion, namely the contextualization of video lectures, time frame of video lectures, the HeK platform and the hybrid learning method. The lessons learned from a mixed learning platform helped identify a more efficient approach towards training academics on a highly relevant topic. Conclusion The potential of a hybrid method of conducting an intensive training efficiently and effectively in a school setting is well demonstrated where target participants have semi-flexible schedules. The platform introduced them to a learning method that perfectly fit their learning style and employment situation but it was deemed not enough to engage them. The content delivered through the platform was found to be too theoretical that needs more locally grounded examples. Research wise, the content could be improved and standardized by manualizing the in-face sessions. The sample size of the intervention group could be expanded and increased. We should also create a research design that could involve a control group. Upon addressing these issues, this method will accelerate the roll out of training to as many faculty and staff as possible who could be engaged in developing appropriate youth interventions that promote drug prevention.

Keywords: hybrid learning, school training, drug prevention, academicians

(221) Akademisyenler için "Sanal Sınıf Yönetim Becerileri Ölçeği" Geliştirilmesi

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Fiziksel bir sınıf ortamında öğrencilerle eğitmen arasında fiziksel temas söz konusudur. Bu temas, eğitmenin etkili bir sınıf yönetimi için tasarlanan kuralları uygulamasına imkân sağlar. Sanal sınıfta bu fiziksel temas zordur ancak eğitmenlerden yine de etkili bir sınıf yönetimi beklenmektedir. Sanal sınıf yönetimi de fiziksel ortamdaki sınıf yönetiminden farklı stratejiler gerektirir. Geleneksel fiziksel ortamda sınıf yönetimine alışkın akademisyenlerin sanal sınıf yönetimlerinde bu stratejileri nasıl uyguladıklarının incelenmesi ve fiziksel ortamdaki performansın üzerine çıkılması eğitim açısından önemli bir çıktı olacaktır. Literatürde öğretmen ve akademisyenlerin sınıf yönetim becerilerini ölçmek üzere birçok ölçek bulunmasına rağmen sanal sınıf ile öğretim sürecinde sınıf yönetim becerilerini nasıl uyguladıklarını ölçmek üzere oluşturulan araçlar sınırlıdır. Literatürdeki bu boşluğu doldurmak üzere bu çalışmada akademisyenler için sanal sınıf yönetim becerileri ölçeği geliştirilmesi amaçlanmıştır. Türkiye'de farklı üniversitelerde çalışan elverişli örnekleme ile ulaşılan akademisyenlerden toplanan veriler analiz edilmiştir. Açımlayıcı Faktör Analiziyle (AFA) "iletişim tasarımı", "planlama" ve "teknik bilgi" olmak üzere 3 boyutlu ve toplam 18 maddeden oluşan bir yapıya ulaşılmıştır. Bu üç faktörün birlikte toplam varyansın %65.29'unu açıkladığı belirlenmiştir. Analizlerde ölçeğin alt faktörleri arasındaki ilişkiye bakılmış ve faktörlerin birbirleriyle olumlu ve anlamlı ilişki içinde olduğu görülmüştür. Ölçeğin Cronbach α katsayısı .90 bulunmuştur. Pandemi sürecinden sonra uzaktan eğitim uygulamaları artmış ve sanal sınıf üzerinden ders anlatımları yoğunlaşmıştır. Geleneksel fiziksel ortamda sınıf yönetimine alışkın akademisyenlerin sanal sınıf yönetimlerinde bu stratejileri nasıl uyguladıklarının incelenmesi ve fiziksel ortamdaki performansın üzerine çıkılması eğitim açısından önemli bir çıktı olacaktır. Oluşturulan bu ölçek hem sanal sınıf yönetiminin alt faktörlerini anlaşılması hem de gelecek çalışmalarda kullanılmak üzere bir araç mahiyetinde olması nedeniyle alana katkı sağlayacağı düşünülmektedir

Anahtar Sözcükler: sanal sınıf, sınıf yönetimi, plan-program, iletişim tasarımı

(222) Yükseköğretim Öğrencilerinin Uzaktan Eğitimde Derse Devamlılıkları Üzerine Nitel Bir Araştırma

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Uzaktan eğitim özellikle pandemi, savaş veya doğal afet gibi olağanüstü durumlarda eğitim sistemlerinin işleyişini sürdürmesi ve kesintisiz öğrenme imkânı sunması açısından kritik öneme sahiptir. Ancak bu değerli rolüne karşılık uzaktan eğitimde derslere katılımın ve dersi tamamlama oranlarının düşük olması ciddi endişe kaynağı olmaya devam etmektedir. Dolayısıyla uzaktan eğitimde öğrenci katılımının araştırılması ve katılımı teşvik edecek stratejilerin geliştirilmesi büyük önem taşımaktadır. Bu araştırmada, nitel yaklaşım benimsenerek yükseköğretim öğrencilerinin uzaktan eğitimde derse devamlılıklarını etkileyen faktörler araştırılmaktadır. Araştırmada iki odak grup görüşmesi ve yarı yapılandırılmış görüşmeler gerçekleştirilerek toplamda 21 üniversite öğrencisinden veri toplanmıştır. Görüşmelerden elde edilen veriler içerik analizine tabi tutularak kod ve temalar oluşturulmuştur. Araştırma bulguları, derse devamlılığı etkileyen faktörlerin çok boyutlu olduğunu ve öğrenci, öğretici ve ders süreci olmak üzere üç ana gruba ayrılabileceğini göstermektedir. Buna göre öğrencilerin kamera/mikrofon kullanımı, ev ortamları, internet bağlantıları, motivasyon durumları, BT sahiplikleri ve dijital yeterlilikleri derse katılımlarını ve devamlılıklarını etkilemektedir. Öğretici bağlamında ise başta öğretim yöntemi olmak üzere öğretici görüntüsünün ders esnasında açık olması, öğreticinin asenkron paylaşım yapması ve ders esnasında dijital materyal kullanması ortaya çıkan faktörlerdir. Ders süreci ile ilgili olarak devam zorunluluğunun olmaması, sınıf ortamı eksikliği, kaydı sonradan izleyebilme, teknik sorunlar, ders süresinin uzun olması ve dersteki öğrenci sayısı faktörlerine ulaşılmıştır. Bu sonuçlar doğrultusunda araştırmacılara, uygulayıcılara ve politika yapıcılara yönelik öneriler sunulmaktadır.

Anahtar Sözcükler: uzaktan eğitim, çevrim içi öğrenme, derse katılım, öğrenci katılımı, yükseköğretim

(223) The Role Recognition of Vocational College Teachers and Its Relationship with Social Support and Professional Values

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The role cognition of vocational college teachers is crucial in determining their professional behaviour and teaching effectiveness. This study analyses teachers' role cognition from two dimensions: social support and professional values. Social support encompass social, administrative, and peer-related aspects. The research reveals a significant positive correlation between the development of social support and teachers' sense of professional values. Social networks directly and positively predict teachers' sense of professional values, and conversely, teachers' sense of professional values also directly and positively predict their role cognition. Social support indirectly predict teachers' role cognition in a positive manner, with professional values acting as a complete mediator. Consequently, it can be concluded that to leverage the supportive roles of social support, administration, and peers, enhancing teachers' sense of professional values is paramount. This enhancement will ultimately lead to a more positive impact on teachers' cognition.

Keywords: vocational college teachers, role cognition, professional values, social support, structural equation modelling

(224) Factors Influencing Vocational Teachers' Cognition of Professional Role and Research Structure in New Era China

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Teachers play a pivotal role in achieving the transformation of vocational education in a country. However, with the development of education-related technologies such as artificial intelligence and big data, vocational teachers' professional roles face the crisis of being instrumentalized, marginalized, and blurred. Enhancing teachers' perception of their professional role has become an important issue. This paper thoroughly analyzes and summarizes the influencing factors of teachers' role perception. Combining with the national situation in China, it introduces two intermediate variables, "teacher's professional values" and "teacher's interpersonal network". A survey questionnaire composed of mature and adapted scales is used, and Structural Equation Modeling (SEM) is employed to analyze teachers' role perception. The study concludes the direct relationship between factors influencing teachers' role perception and intermediate variables, providing guidance for improving teachers' perception of their professional role.

Keywords: Vocational teachers; teacher role; role cognition; influencing factors; professional identity

(225) COVID-19 Pandemisi Sürecinde Dijitalleşmenin Matematik Başarısına Etkisi: PISA 2022 Yansımaları

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Ekonomik İşbirliği ve Kalkınma Teşkilatı (OECD) tarafından üç yılda bir düzenlenen, 15 yaşındaki öğrencilerin kazandıkları bilgi ve becerileri değerlendirmeyi amaçlayan Uluslararası Öğrenci Değerlendirme Programı (PISA) testinin 2022 yılı sonuçları COVID-19 pandemisinin eğitim üzerindeki yansımalarını küresel ölçekte değerlendirme imkanı sunmuştur. COVID-19 pandemisi ile birlikte yeni düzene uyum sağlamaya çalışan dünya ülkelerinde dijitalleşme süreci hızla artış göstermektedir. Bu dijitalleşme sürecini yakalayabilen ülkelerin PISA testi sonuçlarında matematik başarısına olumlu yönde bir yansıma olduğu görülmektedir. Çalışmada PISA 2022 testi matematik başarısına COVID-19 pandemisinin yansımaları doğrultusunda öğrencilerin bilgi ve iletişim teknolojileri ile dijital cihazları kullanımlarını ve kullandıkları sıklıkları hem Türkiye hem de diğer dünya ülkeleri bazında değerlendirmeyi amaçlamaktadır. Çalışmanın verileri PISA-2022 veri setinden elde edilmiş olmakla birlikte, örneklemini Türkiye'den 15 yaşındaki 7250 öğrenci oluşturmaktadır. Verilerin analizinde betimsel istatistikler ile t- testi, tek yönlü varyans analizi kullanılmıştır. COVID-19 pandemisi boyunca kapalı olan okullar sebebiyle, öğrencilerin en sık kullandığı dijital cihazları ve bu cihazları kullananların matematik başarıları incelendiğinde; kendi akıllı telefonunu kullananlar ile diğer aile fertleri tarafından da kullanılan bir dijital cihazı kullanan öğrenciler arasında anlamlı bir farklılığa ulaşılmamıştır. Ayrıca çalışmada COVID-19 pandemisi boyunca kapalı olan okullar süresince öğrencilerin kullandıkları öğrenme kaynakları, bu kaynaklardan hangilerini matematik derslerinin ödevlerinde kullandıkları ve bu kaynakları kullanım sıklıkları hem Türkiye hem de dünya ülkeleri bazında incelenmiş ve sonuçlar sunulmuştur.

Anahtar Sözcükler: PISA 2022, COVID-19 pandemisi, matematik başarısı, bilgi ve iletişim teknolojileri, dijitalleşme.

(226) Comparison of Preservice Teachers' and Artificial Intelligence Programmes' Evaluations of the Film "Forrest Gump"

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The aim of this study was to compare preservice teachers' evaluations of the film 'Forrest Gump' with evaluations made by artificial intelligence (AI) programmes. The preservice teachers watched this film as part of a Special Education Course. The preservice teachers are studying in the departments of Mathematics and Science. The film "Forrest Gump" was used as an attempt to reveal the preservice teachers' awareness of the individual in need of special education. Furthermore, this study aimed to unveil responses provided by AI programs, increasingly employed across diverse domains. Such analysis extended to the film "Forrest Gump." Ultimately, the study compared preservice teachers' responses with those generated by AI, aiming to gauge the realism and similarity of AI responses to human perspectives, particularly regarding topics like special education. Preservice teachers need awareness of students' special education needs to recognize them and offer suitable education within classroom settings. It's significant to uncover the databases of AI programs in sensitive areas like special education, shedding light on their infrastructure for potential future applications. In this study, 24 senior pre-service students were examined. Written evaluations regarding the film were solicited from these participants, focusing on exemplifying the protagonist's characteristic traits with scenes from "Forrest Gump" and reflecting on impactful scenes or dialogue. Additionally, responses to identical prompts were collected from three distinct AI programs (ChatGPT, Gemini, and Copilot). The evaluations underwent content analysis conducted by two experts. The inter-expert agreement coefficient was calculated as 0.87 to assess the level of agreement between the analysts. Similar to preservice teachers, AI programs identified themes related to physical and mental disability and emotional and personal characteristics. Notably, most AI programs (excluding Chat GPT) addressed social relations and communication. However, AI programs did not provide evaluations encompassing behavioural characteristics or abilities and achievements. Preservice teachers' evaluations were characterized by the use of subjective language, reflecting their personal interpretations. In contrast, AI programs employed a more objective language in their responses. Interestingly, pre-service teachers mentioned scenes and quotes that resonated with them, which were absent in AI evaluations. The Gemini AI program, however, offered a unique feature by visualizing these impactful scenes for the user. Preservice teachers provided more detailed explanations than AI programs in special education. AI's database and film analysis skills in this field require enhancement. Further research using diverse films and AI programs can lead to more comprehensive insights.

Anahtar Sözcükler: preservice teachers, special education, artificial intelligence, Forrest Gump film.

(228) Akademisyenler Açısından Kovid-19 Sırasında ve Sonrasında Çevrimiçi Öğrenme Ortamlarının Açık ve Uzaktan Eğitim Koşullarına Uyarlanması

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Bu araştırmanın amacı, akademisyenlerin 2022-2023 öğretim yılı bahar döneminde zorunlu uzaktan eğitimin yürütülmesi sırasında Kovid-19 sırasında ve sonrasında çevrimiçi öğrenme ortamlarının açık ve uzaktan eğitimin koşullarına uyarlanmasına ilişkin görüşlerini belirlemektir. 15 Mart 2020 tarihinde Koronavirüs (Kovid-19) pandemisi nedeniyle uygulanan ve sona eren zorunlu uzaktan eğitimden sonra, 6 Şubat 2023 tarihinde Türkiye'nin güneyindeki birbirine komşu birçok ili etkileyen depremlerin ardından yeniden zorunlu uzaktan eğitime geçilmiştir. Bu süreçte akademisyenler açısından çevrimiçi öğrenme ortamlarındaki açık ve uzaktan eğitime yönelik uyarlama yöntemleri çeşitli yeni çalışmalar gerektirmektedir. Bu nedenle akademisyenlerin eğitim-öğretim faaliyetleri kapsamında öğrencileriyle dersliklerde veya amfilerde yürüttükleri yüz yüze iletişimin yerine, dijital ortamda gerçekleştirdikleri teknoloji tabanlı iletişim biçimlerindeki kritik paradigma değişimlerini değerlendirmeleri önem arz etmektedir. Akademisyenlerin akıllı teknolojilere uyum sağlayabilmeleri çevrimiçi öğrenme ortamlarının etkililiğini ve kalitesini de belirlemektedir. Araştırmada nitel araştırma yöntemlerinden durum çalışması deseni kullanılmıştır. Araştırmanın çalışma grubunun belirlenmesinde kolay örnekleme tekniğinden yararlanılmış, Eskişehir'de bulunan Anadolu Üniversitesi, Osmangazi Üniversitesi ve Eskişehir Teknik Üniversitesi'nden 2022-2023 öğretim yılı bahar döneminde uzaktan eğitim veren akademisyenler gönüllü olarak katılmıştır. Araştırmanın verileri, araştırmacı tarafından hazırlanan yarı yapılandırılmış form kullanılarak elde edilmiştir. Formlardan edinilen bilgiler doğrultusunda elde edilen görüşler, belirli temalar ve kodlar aracılığıyla kategorize edilmiştir. Çalışma kapsamında toplanan yazılı dokümanlar bilgisayar ortamında, "betimsel analiz ve içerik analizi" tekniği uygulanarak çözümlenmiştir. Araştırma sonucunda; akademisyenlerin önemli bir kısmının dijital çağda uzaktan öğrenme sürecinin yönetilebilmesi açısından üniversitelerin ve öğretim kadrosunun üstlendiği roller üzerinde yeniden düşündükleri ortaya çıkmıştır. Akademisyenlerin öğrencilerin çevrimiçi öğrenme ortamlarını kullanımlarını kontrol etmekte bazı zorluklarla karşılaştıkları ve öğrencileriyle etkileşimlerinde problemler yaşadıkları belirlenmiştir. Diğer taraftan pandemi sırasında yürütülen çalışmalar kapsamında kazandıkları dijital becerilerin akademik yaşamları üzerinde, açık ve uzaktan eğitime alışma konusunda olumlu etkiler oluşturduğu vurgulanmıştır. Araştırmada elde edilen bulgular alan yazın ışığında tartışılarak, çeşitli önerilerde bulunulmuştur.

Anahtar Sözcükler: Açık ve uzaktan eğitim, çevrimiçi öğrenme ortamları, akıllı teknolojiler, dijital çağda üniversiteler.

(229) Virtual Education Zone (VEZ)

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With this project, in a virtual learning environment that will be created using virtual reality technology, students' motivation in studying and learning will be increased, learning environments will be more enjoyable, problem solving and higher-level thinking skills will be developed, VEZ (Virtual Education Zone) By processing the data obtained through the use of the application, it is aimed to determine the points that make learning difficult on a course basis. In this project, we plan to develop a virtual reality application that includes various virtual reality training videos, animations, and documentaries. The application will include an artificial intelligence-supported assistant character for user interaction, single and multi-player educational games, a competition-based reward system that other users can see, and additional materials, assignments, and tests that will help users better understand the subject they are working on.

Keywords: Virtual Reality, Education, Immersive Learning, Artificial Intelligence, Gamification, Student, Interactive, Competition.

(230) Technology Integration in Language Teaching: A Needs Analysis

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The question of technology integration in the language classroom has phased through "if" and "when" to "how", reflecting the inevitability of using technology in the process. To contribute to the "how" dimension of technology integration, this study aims to conduct a needs analysis of technology integration in language teaching with stakeholders, namely 41 EFL pre-service teachers, 8 EFL in-service teachers, and 5 field experts who are involved in both language teaching and technology integration in education. In this qualitative study, two types of data are collected: open-ended online questionnaires with EFL pre-service teachers, and semi-structured online interviews with EFL in-service teachers and field experts. The data are analyzed using thematic analysis following the in-vivo framework to form themes and codes. The findings have revealed that all groups have considered technology integration in language teaching as a necessity in this digital age. While the in-service and pre-service teachers have provided data on their needs, strengths, and areas for improvement regarding technology integration, the field experts have provided data on their opinions, suggestions, and experience regarding technology integration in language teaching. The in-service and pre-service teachers have reported that technology integration makes the teaching and learning process more effective, interactive, and enjoyable if the technical issues can be overcome. The field experts have suggested that technology integration is not only a necessity but also easily achievable because of the compatible nature of technology and language teaching.

Keywords: Technology Integration, Language Teaching, Needs Analysis

(231) Sanatın Dijital Hali NFT'ler ve NFT Sitelerine Genel Bakış

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Teknolojinin hızla gelişmesi ile hayatımıza her geçen gün yeni kavramlar eklenmektedir. Bu çalışmada, Blok zincir (Blockchain), teknolojisinin bir ürünü olan "Non-Fungible Token (NFT)" kavramı detaylandırılmaktadır. NFT, sıradan dijital dosyaların aksine, benzersiz, eşsiz ve tekrarı olmayan dijital öğelerdir. Görsel sanat eserleri, resimler, videolar, fotoğraflar, müzik eserleri, konser biletleri, üyelik kartları, sanal kreasyonlar, dijital oyun karakterleri, dijital oyunlarda kazanılan ödüller, dijital oyunlarda kazanılan eşyalar, Metaverse'deki sanal araziler, metinler gibi eserlerin, dijital ortamlarda temsil edilmesi ve bu eserler üzerindeki hakların sahipliğinin tescil edilmesidir. NFT'ler, Blok zinciri teknolojisi kullanılarak, dijital ortamda üretilen benzersiz, değiştirilemeyen eserlerin orijinaline bir kimlik kazandırarak, güvence altına alınır. Bu tokenler dijital dünyada üretilen herhangi bir içeriğe (fotoğraf, video, hikaye, resim, tweet, oyun karakteri vb) özel bir kod vererek onu eşsizleştirmekte ve ona sahiplik imkanı sunmaktadır. Blok zinciri tabanlı ağlar, Web 3.0 olarak adlandırılan üçüncü nesil web'e ait olan ve daha yüksek derecede yapay zeka ve makine öğrenimi kullanımı, daha etkin veri toplama ve paylaşma, daha güçlü ve özelleştirilebilir arama özellikleri, daha fazla ölçeklenebilirlik ve güvenlik gibi özelliklere sahiptirler. NFT'lerin oluşturulması, alınması-satılması için Blok zinciri teknolojisi, akıllı sözleşmeler (smart contracts) gibi teknolojiler kullanılmaktadır. NFT'ler, blok zincirinde harf ve sayılarla şifrelenmiş benzersiz ve yeri doldurulamaz bir şekilde yer almaktadır. Bu çalışmada, NFT'ler yani değiştirilemeyen tokenler ya da Türk Dil Kurumu (TDK) tarafından belirlenen yeni karşılığı ile "Nitelikli Fikri Tapu" üzerine yapılan araştırma içerikleri yer almaktadır. Çalışmada; NFT kavramının açıklaması, geçmişten bugüne gösterdiği gelişmeler, benzersiz ve değiştirilemez olmasının altyapısını oluşturan Blok zinciri teknolojisi, akıllı sözleşmeler, kullanılan standartlar ve son olarak da farklı NFT Platformlarının karşılaştırmalı özelliklerini barındıran verileri ve bulguları içermektedir.

Anahtar Sözcükler: NFT, blok zinciri, akıllı sözleşme

(232) Covid-19 Pandemi Döneminde İngilizce Öğretmenlerinin Uzaktan Eğitim Sürecine Yönelik Görüşleri: Nitel Bir Durum Çalışması

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Bu araştırmanın amacı, İngilizce öğretmenlerinin Covid-19 pandemi sürecinde deneyimledikleri uzaktan eğitim hakkındaki görüşlerini ve önerilerini belirlemektir. Çalışma grubu, 9 ingilizce öğretmeninden oluşmaktadır. Veriler, 15 Mart - 13 Mayıs 2023 tarihleri arasında toplanmıştır. Araştırma, nitel araştırma yöntemleri içinde durum çalışması deseni kullanılarak yapılmıştır. İngilizce öğretmenleriyle yarı yapılandırılmış bir form aracılığıyla görüşmeler gerçekleştirilmiştir. Elde edilen bulgulara göre, uzaktan eğitim öğretmenler için ev ortamında daha rahat hissedilebilen, sınıf kontrolünün ve ödev takibinin daha kolay olduğu bir sistem olarak olumlu değerlendirilmiştir. Öğrenciler için ise hem ekran başında olmanın hem de arkadaşlarından ayrı kalmamanın olumlu bir yanı olduğu kabul edilmiştir. Ancak, sessiz bir ortamın olmaması, zaman zaman yaşanan teknolojik aksaklıklar veya evde birden fazla öğrencinin bulunması gibi sebeplerle teknolojik alet yetersizliği öğrenciler açısından sorun teşkil etmektedir. Bu bağlamda, öğretmenler, öğrencilerin internet sorunlarının çözülmesi gerektiğini ve her öğrenciye fırsat eşitliği sağlanması gerektiğini önermektedirler.

Anahtar Sözcükler: İngilizce öğretmenleri, Uzaktan eğitim, Eğitim teknolojileri, Covid-19, Nitel araştırma

(233) Online Öğrenim Gören Biyoloji ve Fen Bilgisi Öğretmen Adaylarının Biyoçeşitlilik Okuryazarlıkları

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Dünya var olduğundan bu yana geçen zamanda tüm canlı organizmalar değişip gelişerek türler arasındaki çeşitliliğin artmasına neden olmuştur. Türler arasında gerçekleşen bu değişim ve çeşitlilik biyoçeşitlilik olarak tanımlanmaktadır. Biyoçeşitliliğin öğrenilmesi ve öğretilmesinde biyoçeşitlilik okuryazarlığı önemlidir. Biyoçeşitlilik okuryazarlığı insanların biyoçeşitliliği ve çevre ile ilgili konuları anlamalarını, yorumlamalarını konu hakkında karar vermelerini sağlamak için gereken bilgi, beceri ve tutumun birleşimi olarak nitelendirilmektedir. Bu araştırma, online öğrenim gören biyoloji ve fen bilgisi öğretmen adaylarının biyoçeşitlilik okuryazarlık düzeylerinin nasıl olduğunun incelenmesi ve biyoçeşitlilik okuryazarlık düzeylerinin çeşitli değişkenlere (cinsiyet, öğrenim görülen program, öğrenim görülen sınıf düzeyi) göre farklılık gösterip göstermediklerini belirlemesi amacıyla yapılmıştır. Araştırmada, nicel araştırma yöntemlerinden tarama modelinde gerçekleştirilmiştir. Çalışmanın örneklemi uygun örnekleme yöntemiyle belirlenen 201 öğretmen adayı oluşturmaktadır. Örneklem Türkiye'nin batısında bulunan bir üniversitenin biyoloji (52 öğretmen adayı) ve fen bilgisi (149 öğretmen adayı) öğretmenliği programlarında öğrenim gören öğretmen adaylarından oluşmaktadır. Veri toplama aracı olarak araştırmacıların hazırlamış olduğu kişisel bilgi formu ve Gürbüz ve diğerleri (2013) tarafından geliştirilen biyoçeşitlilik okuryazarlığı ölçeği kullanılmıştır. Verilerin analizi, betimsel istatistikler, t-testi ve tek yönlü varyans analizi ile gerçekleştirilmiştir. Araştırma sonucunda öğretmen adaylarının biyoçeşitlilik okuryazarlık düzeylerinin yüksek olduğu bulunmuştur. Öğretmen adaylarının biyoçeşitlilik okuryazarlık düzeylerinin cinsiyet, öğrenim görülen program ve öğrenim görülen sınıf düzeyi değişkenlerine göre istatistiksel olarak anlamlı farklılık göstermediği sonucuna da ulaşılmıştır.

Anahtar Sözcükler: öğretmen adayı, biyoçeşitlilik, biyoçeşitlilik okuryazarlığı

(234) Meslek Derslerinin Öğretiminde Web 2.0 Araçlarının Kullanımının Akademik Başarı ve Motivasyona Etkisinin İncelenmesi: Meslek Lisesi Bilişim Teknolojileri Bölümü Örneği

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Bu araştırmanın amacı Meslek Lisesi Bilişim Teknolojileri Alanı öğrencilerinin meslek derslerinin öğretiminde web 2.0 araçlarının kullanımına ilişkin, öğrencilerin akademik başarısına ve motivasyonuna etkisini incelenmesidir. Araştırma karma araştırma yöntemi ile yürütülmüştür. Araştırmada karma araştırma yöntemi kapsamında nicel ve nitel araştırma yöntemi beraber kullanılmıştır. Nicel araştırma boyutunda ön test- son test kontrol gruplu yarı deneysel desen kullanılmıştır. Nitel araştırma boyutunda ise yapılandırılmış görüşme formu ile öğrencilerin görüşleri alınmıştır. Araştırmada nicel veriler, araştırmacı tarafından geliştirilen Ağ Temelleri Akademik Başarı Testi ve Öğretim Materyali 'ne İlişkin Motivasyon Ölçeği kullanılarak toplanmıştır. Araştırmaya 2022-2023 eğitim-öğretim döneminde, Bilişim Teknolojilerinin Temelleri dersi kapsamında, 9. Sınıfta öğrenim gören 75 öğrenci katılım sağlamıştır. Deney grubu öğrenci sayısı 39, kontrol grubunun ise öğrenci sayısı 36'dır. Araştırma süreci haftada 3 ders saati olmak üzere toplam da 8 Hafta sürmüştür. Araştırmada öğretim süreci ASSURE öğretim tasarımı modeli kullanılarak planlanmıştır. Deney grubuna, Bilişim Teknolojilerinin Temelleri dersinin Ağ Temelleri ünitesinin kazanımları doğrultusunda Web 2.0 araçları kullanılarak öğretim gerçekleştirilmiştir. Kontrol grubunda ise ünitenin kazanımları doğrultusunda mevcut program baz alınarak ders planı hazırlanmış ve öğretim gerçekleştirilmiştir. Deney grubuna öğretmen tarafından Web 2.0 araçları kullanılarak etkinlikler geliştirilmiş ve öğrenciler de Web 2.0 araçlarını kullanarak içerikler üretmişlerdir. Verilerin analizinde nicel veriler için, ilişkisiz(bağımsız) örneklemler için t-testi ve ilişkili(bağımlı) örneklemler için t-testi, nitel veriler için ise içerik analizi kullanılmıştır. Araştırmadan elde edilen sonuca göre, Web 2.0 araçları kullanılarak yapılan öğretimin deney ve kontrol grubunun akademik başarı ve motivasyon düzeylerinde artış sağlamıştır. Bunun sonucunda deney ve kontrol grubu öğrencilerinin, akademik başarı ve motivasyon son test puanlarında deney grubu lehine istatistiksel olarak anlamlı bir fark bulunmuştur. Yapılan görüşmede öğrenciler, Web 2.0 araçlarının ders içerisinde kullanılmasını beğendiklerini, merak uyandırıcı ve faydalı buldukları, motivasyon düzeylerini olumlu yönde arttırdığı ve diğer derslerde de Web 2.0 araçları kullanılabileceklerinden bahsetmişlerdir.

Anahtar Sözcükler: Akademik başarı, bilişim teknolojileri alanı, meslek lisesi, motivasyon, web 2.0 araçları.,

(235) Expression of Teacher Agency in Support of Post-Pandemic Blended Learning: A Case Study of Philippine State Universities and Colleges

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The COVID-19 pandemic resulted in various adjustments with the delivery of education. The Philippines heavily adopted blended learning at the height of the pandemic, but schools have now gradually returned to its pre-pandemic set-up where the traditional face-to-face teaching is far more common. Part of the reason for reverting to the former set-up is the directives from overseeing institutions. However, ways on how aspects of blended learning are used still remain. This study is an exploratory study that analyzed the experiences of teachers in five Philippine State Universities and Colleges to try to understand the common reasons behind their personal motivations to continue using key aspects of blended learning. The study was able to determine that the motivations of the teachers to exert their agency and use aspects of blended learning include their appreciation of its unique benefits regarding its potential to help increase students' learning autonomy as well as the recognition that there is a need to adapt to the digital world setting. Barriers that hinder the use of blended learning remain, but these beliefs of the teachers enable them to exert their teacher agency and express their creative freedom to continue its use. This study thus aims to contribute to further efforts in integrating blended learning into the curriculum.

Keywords: directives; motivations; policy

(236) Designing a Teacher Professional Development MOOC For English Language Teachers

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When designed and delivered effectively, Massive Open Online Courses, or MOOCs, offer promising potentials for flexible and scalable teacher professional development bridging geographical and temporal barriers. This study outlines the design and development of a Teacher Professional Development MOOC entitled 'Technology-Enhanced Language Learning' (TELL-MOOC) which seeks to offer comprehensive and flexible training for English language teachers around the world. The primary objective of the TELL MOOC is to equip ESL/EFL teachers and teacher candidates with the knowledge, skills, and tools necessary to integrate technology effectively and responsibly into language education. ADDIE instructional design model guided the whole design and development processes. During the analysis phase, English teachers' needs were assessed through surveys and interviews in order to pinpoint areas for professional development. Learning objectives were developed during the design phase, taking into account the findings from the analysis phase. The Community of Inquiry (CoI) served as the theoretical framework for developing meaningful and effective online learning experiences. The TELL-MOOC's pedagogical approach and interactive components were inspired by the CoI framework, which places a strong emphasis on cognitive, social, and teaching presence. Throughout the course, case-based problem-based learning activities as well as opportunities for sustained and reflective discourse through interactive activities aim to foster cognitive presence. The course's discussion boards, which are included in every module, are designed to improve social presence. Instructional videos, immediate feedback systems, and a strong facilitator presence all contribute to the establishment of teaching presence. During the development stage, video lectures, interactive learning activities, and case scenarios were among the multimedia learning elements that were produced. During the implementation phase, a diverse cohort of English teachers from different locations will participate in the TELL-MOOC. Numerous outlets for teacher professional development have advertised the TELL-MOOC. The MOOC is presently being delivered. The Kirkpatrick Evaluation Model (KEM) will be used to guide the evaluation phase. Learning analytics, discussion forum participation, pre- and post-surveys, facilitator observations, and learning analytics will be used to gather evidential data for the first three levels of the KEM, which include reactions, learning, and behaviors. This study adds to the expanding corpus of research on creating successful MOOCs for teacher professional development. The resulting MOOC provides an extensive, captivating, and theoretically grounded online learning experience catered to the needs of English language teachers globally by utilizing the ADDIE model, CoI framework, and the KEM for evaluation. The TELL MOOC is funded by the 2219 TÜBİTAK Program.

Keywords: teacher professional development, massive open online courses, community of inquiry, lifelong learning, adult education, ,

(237) Enriching the EFL Classroom with Digital Tools: A Review of Web 2.0 Tools with a Focus on Padlet

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The widespread use of digital technologies has naturally drawn researchers' attention to their impact on the learning and teaching processes. Educational technology has become an indispensable aspect of foreign language education as well, playing a crucial role in enhancing learning opportunities for English as a Foreign Language (EFL) learners. Therefore, it has become essential for EFL teachers to have digital literacy skills in order to use and apply digital technologies properly in their own teaching. With these concerns in mind, the present study aimed to review the theoretical and empirical underpinnings of the influence of digital technologies on the foreign language learning and teaching process, offering EFL teachers some creative ways to integrate Padlet into their teaching practices. Following an overview of the Web 2.0 tools that can be used in EFL instruction and the related research on the use of Padlet in the EFL classroom along with its impact on EFL learning, the study focused on some practical recommendations on how to integrate Padlet effectively into English language teaching practices. Finally, suggestions for further research were offered to move this line of research forward.

Keywords: Web 2.0 tools, Padlet, foreign language education, EFL learners, EFL classroom, digital technologies

(238) Mobile Learning in Distance Education: A Comprehensive Examination of Conceptual, Historical, Technological, Pedagogical, and Accessibility Dimensions

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This study explores the complex environment of mobile learning within the field of educational technology. The definition, evolution, and categorization of mobile learning are examined, with a focus on how it has revolutionized remote learning. The study provides a deep knowledge of the various aspects of mobile learning by exploring theoretical foundations, conceptual frameworks, and pedagogical approaches. With a concentration on smartphones and tablets in particular, the increase of mobile devices and the emergence of mobile learning are closely related. Examining the benefits and drawbacks of mobile learning, it is clear that while there are hurdles like digital inequality and technological difficulties, mobile learning has the potential to improve flexibility, accessibility, and participation. Using examples from a range of educational fields, the study examines the condition of mobile learning applications today. A vast range of tools, systems, and applications are included in the technological considerations, demonstrating the dynamic interaction between technology and pedagogy in mobile learning. The ramifications for policy and institutions are examined, with a focus on the necessity of unambiguous rules, easily navigable websites, and ongoing professional development for teachers. While future directions point to deeper AI integration, developments in VR and AR, and the possible influence of 5G technology, the examination of existing patterns reveals the integration of AI, VR, and AR. Many studies examining the efficacy and impact of mobile learning are covered in a concentrated study topic, together with a range of educational applications and technological factors. The article looks at various pedagogical strategies for mobile distant learning, including gamification, interactive multimedia, adaptive learning, and teamwork tools. The last section of the study examines the state of mobile learning in Turkey today, stressing its development, obstacles, and incorporation into the country's educational strategy. Mobile learning is a dynamic sector that requires constant research and innovation in the area of educational technology due to its present trends and future potential.

Anahtar Sözcükler: Mobile Learning, mLEarning, flexible, self-pace, distance learning, educational technology

(239) Identifying the Conceptualization, Perception and Implementation of Prospective Teachers towards SDGs

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This research study aims to investigate the perceptions of prospective teachers to define and comprehend SDGs conceptually, their perceptions of the importance and relevance of the goals in the context of education, and how they integrate the SDGs into their teaching practices. In this study, the cross-sectional descriptive survey research method was used. The population was all the enrolled students (1987) in the department of Education in an online university of Pakistan. Data was collected by using convenient sampling technique. Using an adapted questionnaire titled Questionnaire on Sustainable Development - data was gathered from 369 prospective teachers. The reliability of the instrument was $\alpha = .974$. The finding revealed that prospective teachers are well aware about the SDGs and its importance. Prospective teachers are actively implementing SDGs in their teaching. They actively engage with students to support the SDGs to contribute in the community. Key words: sustainable development, teacher education, prospective teachers, conceptualization, environmental sustainability

Keywords: sustainable development, teacher education, , environmental sustainability

(240) Metaverse ortamında matematik öğrenme ve öğretme deneyimi için etkinlik geliştirme süreci

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Metaverse, üç boyutlu, küresel, birbirine bağlı, sürükleyici ve gerçek zamanlı çevrimiçi öğrenme deneyimi sunma potansiyeli taşıyan bir sanal gerçeklik ortamıdır. Bu çalışmanın amacı, ortaöğretim öğrencilerinin ve öğretmen adaylarının kullanımına yönelik Metaverse ortamında matematik öğrenme ve öğretme deneyimi için etkinlik tasarım ve geliştirme sürecini açıklamaktır. Metaverse ortamında matematik öğrenme ve öğretme deneyimi için geliştirilen etkinlikler, öğretim tasarımı modellerinden analiz, tasarım, geliştirme, uygulama ve değerlendirme (ADDIE) modeline uygun olarak geliştirilmiştir. Analiz aşamasında, hedef kitle olan ortaöğretim öğrencilerinin ve öğretmen adaylarının sanal gerçeklik deneyimleri ve Metaverse ortamını öğrenme ve öğretme amaçlı kullanma ihtiyaçları belirlenmiştir. Ayrıca Metaverse ortamında öğrenme ve öğretme deneyimi için geliştirilen etkinliğin ortaöğretim matematik öğretim programındaki hangi kazanıma uygun olduğu belirlenmiştir. Analiz aşamasında Metaverse ortamında yer alan öğrenme ve öğretim amaçlı kullanılabilecek platformlar da incelenmiştir. Tasarım aşamasında, etkinliklere uygun Metaverse platformu seçilmiş ve etkinliklerin üç boyutlu modelleri üç boyutlu çizim programlarıyla tasarlanmıştır. Geliştirme aşamasında etkinlik tasarımları, seçilen Metaverse platformuna taşınarak etkinliklerle ilgili görüntüleme ve manipülasyon denemeleri yapılmıştır. Gerekli görülen düzeltmelerden sonra etkinlikler son halini almıştır. Uygulama ve değerlendirme aşamalarında uygun örnekleme yöntemiyle seçilecek 10 ortaöğretim 10. öğrencisinin ve altı öğretmen adayının Metaverse ortamındaki matematik etkinliklerini deneyimlemesi ve etkinlikler hakkındaki görüşlerinin alınması planlanmaktadır. Çalışma sonucunda Metaverse ortamında kullanmak için geliştirilen matematik etkinliklerinin iyileştirilmesi ve geniş çapta uygulanması için önerilerde bulunulması planlanmaktadır.

Anahtar Sözcükler: Sanal gerçeklik, Metaverse, matematik öğretimi, etkinlik

(241) Bilgi İşlemsel Düşünme Becerisi Eğitiminde Bilgi İnşa Sistemleri: Neden? Nasıl

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Bilgisayar bilimi eğitimi son 50 yıl içerisinde dönüşüm geçirerek, teknoloji öğretiminin sınırlarını genişletmiş ve bireylerin düşünme becerilerinin geliştirilmesinin amaçlandığı bir eğitim alanına dönüşmüştür. Bilgisayar bilimi, insan zihninin nasıl çalıştığını anlamak ve buna dayalı olarak bilişsel süreçleri modellemek için bilimsel bir çaba olarak öne çıkmaktadır. Bu kapsamda, son yıllarda, analitik düşünme, eleştirel düşünme, yaratıcı düşünme ve bilgi işlemsel düşünme (BİD), bilgisayar bilimi eğitimi ile birlikte ifade edilen önemli düşünme becerisi alanları olarak dikkat çekmektedirler. BİD becerileri, günlük yaşamdaki herhangi bir probleme bilgisayar bilimci yaklaşımıyla çözüm üretme yaklaşımı olarak ifade edilebilmektedir. BİD becerileri, temel dört aşamaya ayrılabilir: Ayrıştırma, desen tanıma, soyutlama ve algoritma oluşturma. Bu kapsamda, problem tabanlı öğrenme, durumlu öğrenme , oyunlaştırma vb. Farklı öğrenme yaklaşımları ve stratejilerinin BİD becerilerinin eğitiminde kullanıldıkları görülebilmektedir. Bilgi inşa sistemleri (BİS) , eş zamanlı ekran paylaşımı ve düşünme ağının oluşturulmasına izin veren yapılarıyla düşünme becerisi gelişimine destek olabilecek yazılım temelli uygulamalar olarak öne çıkmaktadırlar. BİD becerisini geliştirmenin yanı sıra değerlendirilmesine yönelikte yeni bakış açılarına ihtiyaç duyulduğu literatürde görülmektedir. BİS'lerin sahip oldukları özellikler ile BİD becerilerinin değerlendirilmesi için de kullanılabilecekleri düşünülmektedir. Yapılan bu çalışmada, BİD becerilerinin gelişiminde, bilgi inşa sistemlerinin ne kapsamda kullanılabilecekleri ve BİS uygulamalarının BİD becerilerinin gelişimi için nasıl kullanılabilecekleri literatür temelli olarak açıklanmaya çalışılacaktır.

Anahtar Sözcükler: Bilgi işlemsel düşünme; Bilgi inşa sistemleri; Paylaşım; Bilgisayar bilimi, Computational thinking; Knowledge building systems; Sharing; Computer science

(242) Öğretim Elemanlarının Çevrimiçi Öğretim Konusundaki Hazırbulunuşluklarının İncelenmesi – Bir Tarama Çalışması

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Teknolojide yaşanan hızlı değişimler sayesinde öğrenme ortamlarının dijitalleşmesi konusunda birçok yenilik yaşanmaktadır. Bu yeniliklerden birisi de hiç şüphesiz COVID-19 pandemisinde daha da popüler bir konu haline gelen çevrimiçi öğrenmenin yaygınlaşması olmuştur. Özelikle üniversiteler son yıllarda çevrimiçi öğrenme konusundaki gelişmeleri takip etmekte ve daha etkili çevrimiçi öğrenme süreçleri sunabilmek amacıyla çeşitli araştırmalar ve yatırımlar yapmaktadırlar. Çevrimiçi öğrenme sürecinin en önemli bileşenlerinden birisi de öğretim elemanıdır. Dolayısıyla öğretim elemanlarının çevrimiçi öğretim konusundaki hazırbulunuşluklarının ne düzeyde olduğu sorusu önemlidir. Bu çalışmanın amacı, öğretim elemanlarının çevrimiçi öğretime yönelik hazırbulunuşluk algılarının incelenmesidir. Tarama türündeki bu araştırma kapsamında, Martin, Budhrani ve Wang tarafından (2019) geliştirilen, Köseoğlu (2023) tarafından Türkçe uyarlaması yapılmış olan "Öğretim Elemanlarının Çevrimiçi Öğretime Hazırbulunuşluk Aracı" ile veriler toplanmıştır. Araştırma sonuçları çeşitli değişkenler bağlamında sunulmuş ve tartışılmıştır. * Bu çalışma birinci yazarın Kırşehir Ahi Evran Üniversitesi Fen Bilimleri Enstitüsü BÖTE Anabilim Dalında yürütülen yüksek lisans tez çalışmasının bir bölümünden üretilmiştir.

Anahtar Sözcükler: Çevrimiçi Öğretim, Hazırbulunuşluk, Öğretim Elemanları

(243) Ülkelerin PISA Sınav Sonuçları ile FETEMM Temalı Akademik Yayınları Arasındaki İlişki

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Bu çalışma PISA sınavı uygulanan ülkelerdeki FETEMM hakkında yapılmış makale sayıları ile PISA okuma, matematik ve bilimsel okuryazarlık sınav puanları arasındaki ilişkinin irdelenmesi amacıyla gerçekleştirilmiştir. FETEMM, İngilizce STEM kelimesine karşılık gelen ve fen bilimleri, teknoloji, mühendislik ve matematik bilim alanlarının baş harflerinin kısaltmasından oluşan bir terimdir. FETEMM ilgili alanların öğretimde birlikte ele alınması ve bu alanlara bütüncül yaklaşılması üzerine kabul görmüş bir yaklaşımdır. Öğrencilerin FETEMM yaklaşımı kullanılarak verilen eğitimlere erişimi her geçen gün daha çok ilgi çekmekte ve akademik açıdan değerli kabul edilmektedir (Capraro ve Han, 2014; Taşdemir, 2022). Ancak bu yaklaşım her ülkede benzer düzeyde kabul görmüyor olabilir. Kabulün göstergelerinden birisi olarak FETEMM üzerine yapılmış çalışmaların çokluğu ya da azlığı konuyla bağlantılı olarak düşünülebilir (Li, Wang, Xiao ve Froyd, 2020). Benzer şekilde ülkelerin bahsi geçen alanlardaki başarılarının en kapsamlı göstergelerinden birisi ise PISA sınavlarıdır (Boğar ve Lavonen, 2022; Rotermund ve Burke, 2021). PISA belirli aralıklarla gerçekleştirilen uluslararası öğrenci değerlendirme programıdır ve ülkelerin kendi öğrencilerinin matematik okuryazarlığı, fen bilimleri okuryazarlığı ve okuma becerileri ve ilgili diğer bazı alanlarda performanslarını görmeleri açısından standart bir testtir. Bu anlamda, ülkelerin FETEMM çalışmalarına verdikleri ağırlık ile PISA sınav sonuçları arasında olası pozitif bağlantıların ortaya konması, bu alanda kendini geliştirmek isteyen ülkelere yol gösterici olabilir. Bu çalışma bu potansiyel ilişkiyi keşfetmeye odaklanmıştır. Çalışmanın verileri 1999–2022 yılları arasında WoS ve Scopus veri tabanlarında taranmış olan 6669 adet STEM temalı bilimsel makale ile 2000 yılından itibaren sekiz kez uygulanmış olan PISA okuma, matematik ve bilimsel okuryazarlık sonuçlarının en az yedisine sahip olan 33 ülkenin sınav sonuçlarından oluşmuştur. Ülkelerin PISA sınav yıllarına göre sınav yılından önce ve sınav yılında yayımlamış oldukları akademik yayın sayıları ile PISA okuryazarlık sınav sonuçları arasındaki ilişki korelasyon analizi ile belirlenmiştir. Sınav sonuçları ile yayın sayıları arasında bahsi geçen aralıklarda anlamlı bir ilişki bulunamamakla beraber, özellikle 2007 ve 2021–2022 yıllarındaki makale sayılarının neredeyse tüm sınav puanları ile negatif bir ilişki eğilimine sahip olduğu, 2008–2010 yayın yıllarındaki makale sayılarıyla sınav puanlarının pozitif yönlü korelasyon eğilimine sahip olduğu söylenebilir. Ülkelerin bu eğilimleri doğru okuyarak kendi lehlerine çevirmek için girişimlerde bulunmaları tavsiye edilir.

Anahtar Sözcükler: FETEMM, FETEMM eğitimi, PISA, okuma okuryazarlığı, matematik okuryazarlığı, bilimsel okuryazarlık.

(244) Current Trends and Challenges of Mobile Learning in Open and Distance Education (ODL)

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Mobile learning has made significant progress in recent years. It has become one of the popular and effective methods of imparting education across the globe. With the advancement and use of latest technology, teaching and learning through M-Learning have undergone digital transformation. It has immense potential to not only educate but also empower all sections of society through education and training. The importance of mobile learning was felt more during COVID pandemic when school and colleges were shut down and learning happened through online platforms. While past studies have been done on mobile learning steps and process in different context, current trends, and challenges of mobile learning in open and distance education need to be explored. Through this paper a review will be made to see the progress made in mobile learning from pre covid times. Secondary research will be used to develop this research paper. Various key words which were directly or indirectly related to the research topic will be searched though Google and other search engines to get relevant information related to the topic. Information which was publicly and freely available will be considered for inclusion. Authenticity of the data will be validated from multiple sources and only those data which were relevant to the topic of interest will be considered in the current research paper. Quality checks for the data included but not limited to: Time frame (Latest available data will be considered), data consistency from multiple sources, data from government sources and leading public bodies will be considered for review. However, data limitations do exist which are commonly found while conducting secondary research.

Keywords: Distance Education, Open Learning, Mobile technologies, mobile learning

(245) Breaking Down Degrees: Navigating the Pros and Cons of Modular and Unbundled Learning in Higher Education

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People don't buy albums anymore, they buy songs. They read articles, not newspapers. So why not mix and match learning "modules" instead of being locked into 12-week university courses?" This current situation, as suggested by the Massachusetts Institute of Technology report (2013), also provides a social perspective on why modular education is on the rise. This paper aims to contribute to the debate on the use of modularized and unbundled learning in higher education. After defining the modular system, its importance will be discussed and the potential benefits of modular curriculum structures will be highlighted, as well as the potential challenges that modularization presents to academics and institutions. Afterwards, background studies on this subject matter will be mentioned and recommendations for the future will be presented together with an analysis of the current situation.

Keywords: unbundling, modular learning, stackable learning, short learning programs, individualized learning

(246) Advancing Energy Education: A Conceptional Framework for Improved Learning via Adaptive Generative Networks

Orkun Teke

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The evolving landscape of global energy systems underlines the urgent need for innovative educational strategies in energy systems engineering. This study introduces an Adaptive Generative Network (AGN) based educational framework aimed at enhancing the learning experiences in energy systems engineering. By integrating AGNs into the educational processes, this research explores the potential for personalized and adaptive learning experiences capable of meeting the diverse needs of students. Utilizing a combination of traditional educational materials and modern AI-driven techniques, the framework seeks to dynamically adjust learning content based on real-time student performance data. Preliminary findings suggest that such adaptive learning environments can significantly improve understanding of complex engineering concepts and better prepare students for real-world challenges. The methodology employed involves a rigorous analysis of existing educational materials, student feedback, and industry expectations, ensuring that the AGN-enhanced curriculum is both relevant and effective. The study's implications extend beyond energy systems engineering, suggesting a paradigm shift towards more responsive and student-centered educational practices in technical disciplines.

Keywords: Adaptive Generative Networks, energy systems engineering, personalized learning, educational technology, AI in education.

(247) Okul Öncesi Öğretmen Adaylarının Algoritmik Düşünme Becerilerini Geliştirmelerine Yönelik Bir Eylem Araştırması

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Günümüzde dijital teknolojilerin hızla gelişmesi, algoritmik düşünmenin önemini artırmış ve bu becerinin erken yaşlardan itibaren öğretilmesini gerektirmiştir. Okul öncesi dönem, çocukların bilişsel gelişiminin temelini oluşturduğu kritik bir dönemdir, bu nedenle okul öncesi öğretmen adaylarının algoritmik düşünme becerilerini geliştirmeleri önemlidir. Araştırma, bir eylem araştırması yaklaşımını benimseyerek, okul öncesi öğretmen adaylarının algoritmik düşünme becerilerini nasıl geliştirebileceğimizi incelemeyi amaçlamaktadır. Araştırma süreci, belirli bir okul öncesi eğitim programı içindeki öğretmen adaylarıyla işbirliği yapmayı ve bu programın içeriğini algoritmik düşünmeyi teşvik edecek şekilde uyarlamayı içermektedir. Algoritmik düşünme eğitimi için etkili stratejilerin tanımlanmasına ve okul öncesi öğretmen adaylarının bu becerileri nasıl kazandıklarını anlamaya odaklanmaktadır. Araştırma sonuçları, okul öncesi öğretmen adaylarının algoritmik düşünme becerilerini geliştirmelerine yardımcı olacak öneriler sunacak ve erken çocukluk eğitimine yönelik pedagojik yaklaşımları zenginleştirecektir. Araştırma, okul öncesi eğitim alanında algoritmik düşünme konusunda önemli bir katkı sağlamayı amaçlamaktadır. Algoritmik düşünme becerilerinin erken yaşlarda öğrenilmesi, çocukların gelecekteki teknolojik zorluklara daha hazır ve yetkin bir şekilde yanıt verebilmelerine yardımcı olabilir. Araştırmanın sonuçları, öğretmen eğitimi programlarının geliştirilmesi ve okul öncesi öğretmenlerin öğrencilerine algoritmik düşünme becerilerini nasıl kazandırabilecekleri konusunda faydalı bilgiler sunacaktır. Bu çalışma birinci yazarın Kırşehir Ahi Evran Üniversitesi Fen Bilimleri Enstitüsü BÖTE Anabilim Dalında yürütülen yüksek lisans tez çalışmasının bir bölümünden üretilmiştir.

Anahtar Sözcükler: Algoritmik Düşünme Becerisi, Okul Öncesi Eğitimi, Okul Öncesi Öğretmen Adayları, Eğitim, Eylem Araştırması

(248) Can Large Language Models be used for holistic essay scoring and feedback? A comparative study on human vs AI essay grading

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The recent years have witnessed the emergence of groundbreaking technologies. The integration of these technologies, such as Large Language Models (LLMs), into educational assessment, offers a novel approach to grading and providing feedback on student essays, particularly in distance education where automated grading and feedback are inevitable. This study investigates the extent to which LLM-based grading and feedback, specifically ChatGPT, align with the grades and feedback provided by human raters in the context of holistic essay scoring. Utilising a dataset of 42 argumentative essays, classified into three categories—poor, average, and good—this research explores the similarities and differences between human and AI grading. Each essay was holistically scored by expert raters according to a standardised rubric, accompanied by targeted feedback. In parallel, the essays were scored by ChatGPT, which also provided feedback based on the same rubric criteria. The methodology comprised a descriptive analysis to explore variations in holistic scoring between human raters and ChatGPT. Additionally, a thematic analysis was employed to compare the feedback from both sources, aiming to identify areas of overlap and divergence. With this approach, the study aims to explore the differences between AI and human grading and feedback for argumentative essays. The findings suggest that LLMs demonstrate issues with reliable scoring and feedback without fine-tuning. However, there is a notable improvement in reliable scoring with fine-tuning. Therefore, fine-tuning is deemed essential for specific applications such as essay grading.

Keywords: holistic essay scoring, large language models, human vs AI scoring, AI feedback

(249) Systematic Literature Review of Graduate Thesis on Instructional Technologies in the Fields of Physics, Chemistry, Biology and Science

Dilara Ünlü

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Instructional technologies are an important tool used in the field of education because they support and improve teaching processes. For this reason, examining the studies on learning environments where instructional technologies are used will provide us with important clues about how to teach. Since the studies contain more scientific information and provide more robust evidence, they were analysed using a systematic literature review. In this study, a systematic literature review of 68 graduate theses on instructional technologies in the fields of Physics, Chemistry, Biology and Science between 2013 and 2024 was conducted. The model of this study is a qualitative systematic literature review. Graduate theses published in Turkey between the years 2013-2024 were obtained from YÖK thesis database. A form was prepared for the systematic literature review of the postgraduate these included in the research. Descriptive analysis was used to analyse the data. The data were analysed using percentage and frequency calculations, and tables were created to visualize and make the findings meaningful. In the study, it was determined that 49 of the 68 graduate theses were master's theses and 19 were doctoral theses. It was seen that the most of these theses on instructional technologies were conducted in 2022 and the least in 2013. When analysed on the basis of universities, it was revealed that most studies were conducted at Gazi University. It was determined that quantitative research method (N: 34) and experimental design (N: 28) were used the most in the postgraduate theses and document analysis and action research were used the least. In the analysed studies, the most dependent-independent t-test was used in quantitative analyses, while nonparametric statistical analyses were used the least. In qualitative analyses, it was determined that content analysis was mostly used. As a result of the study, it is recommended that more research should be conducted in science fields in this period when the importance of distance education and instructional technologies is realized. Keywords: Biology, science, physics, chemistry, instructional technologies, systematic literature review.

Keywords: Biology, science, physics, chemistry, instructional technologies, systematic literature review.

(250) Ortaokul Öğrencilerinin Kodlamaya Yönelik Tutumları ile Dijital Oyun Oynama Motivasyonları Arasındaki İlişki

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Bu araştırmada ortaokul öğrencilerinin kodlamaya yönelik tutumları ile dijital oyun oynama motivasyonları arasındaki ilişkinin incelenmesi amaçlanmıştır. Araştırmada nicel araştırma yöntemlerinden korelasyonel model kullanılmıştır. Araştırmanın evrenini Balıkesir ilinde öğrenim gören ortaokul 5 ve 6. sınıf öğrencileri; örneklemini ise bu evrenden uygun örnekleme yöntemi ile seçilen 221 öğrenci oluşturmaktadır. Araştırmada veri toplama aracı olarak "Kodlama tutum ölçeği" ile "Dijital oyun oynama motivasyonu ölçeği" kullanılmıştır. Elde edilen veriler istatiksel analiz programı SPSS 25 kullanılarak analiz edilmiştir. Öğrencilerin kodlamaya yönelik tutum ve dijital oyun oynama motivasyon puanlarının, cinsiyet, bilgisayara sahip olma ve kodlama kursuna girme durumu değişkenlerine göre farklılaşıp farklılaşmadığı belirlemek için ilişkisiz örneklemler için t-testi, sınıf düzeyi ve bilgisayar kullanma süre değişkenlerine göre farklılaşıp farklılaşmadığı belirlemek için ise ilişkisiz örneklemler için tek yönlü varyans analizi (ANOVA) testi yapılmış, kodlamaya yönelik tutum ve dijital oyun oynama motivasyon puanlarının ilişkili olup olmadığını belirlemek için korelasyon katsayısı hesaplanmıştır. Araştırma sonuçlarına göre, öğrencilerin kodlamaya yönelik tutum puanların ortalama üstü düzeyde çeşitlilik göstermekte; dijital oyun oynama motivasyonları orta düzeyde ve homojen bir dağılım göstermektedir. Öğrencilerin kodlamaya yönelik tutumları cinsiyet ve kodlama kursuna gitme durumlarına göre; dijital oyun oynama motivasyonları ise cinsiyet, kodlama kursuna gitme durumu ve bilgisayar kullanma sürelerine göre anlamlılık göstermektedir. Öğrencilerin kodlamaya yönelik tutumları ile dijital oyun oynama motivasyonları arasında pozitif bir ilişki bulunmaktadır. Bu ilişki korelasyon katsayısı düşük olduğundan zayıf ilişki olarak değerlendirilebilir.

Anahtar Sözcükler: Kodlama, kodlamaya yönelik tutum, dijital oyun, oyun oynama motivasyonu

(251) Comparative Investigation of Middle School and High School Students' Metaphors Towards Artificial Intelligence

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The aim of this study is to determine and compare middle and high school students' perceptions of the concept of "artificial intelligence" through metaphors. The study was conducted with the survey model, one of the quantitative research methods. The sample was determined by convenient (easily accessible) sampling method from non-probability sampling methods. The study was conducted with 112 middle school and 59 high school students in the spring semester of 2023-2024. Middle and high school students were asked to complete the sentence "Artificial intelligence is similar to .... Because ...." and the data obtained were subjected to content analysis. As a result of the study, it was seen that middle school students produced 41 metaphors about artificial intelligence and these metaphors were grouped under 15 different categories. Among the metaphors produced by the students, the ones with the highest frequencies were robot and human. Among the categories of metaphors, the most prominent ones are broad knowledge power, nature/function of artificial intelligence and similarity to human characteristics. High school students produced 43 metaphors about artificial intelligence and these metaphors were grouped under 13 different categories. Among the metaphors produced by the students, the ones with the highest frequencies were human and brain. The prominent categories of the metaphors were similarity to human characteristics, positive/negative effect and nature/function of artificial intelligence. The results reveal that high school students' metaphors show more diversity compared to middle school students and that they perceive artificial intelligence in a more human dimension compared to middle school students. When the categories of the metaphors put forward are considered, it is seen that there is no broad knowledge power category in the prominent categories of high school students, and similarly, there is no positive/negative effect in the prominent categories of middle school students. At this point, it can be said that the perceptions of middle school students towards the concept of artificial intelligence are more optimistic than those of high school students; high school students consider the possible risks and potential harms of artificial intelligence more.

Anahtar Sözcükler: Artificial intelligence, metaphor, middle school students, high school students

(252) Yapay Zekâ Teknolojilerinin Kaynaştırma Eğitimine Entegrasyonu   Integration of Artificial Intelligence Technologies in Inclusive Education

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Özel gereksinimli öğrencilerin (ÖGÖ) eğitim haklarından yararlanabilmeleri için kaynaştırma uygulamaları başarılı bir şekilde gerçekleştirilmelidir. Bu bağlamda ÖGÖ'lere yönelik bireyselleştirilmiş eğitim programı (BEP) kapsamında gerek akademik gerekse akademik olmayan becerilerin etkili ve kalıcı öğretimi için öğretimsel uyarlamaların gerçekleştirilmesi gerekmektedir. Ancak araştırmalar bu konuda çeşitli nedenlerden kaynaklanan sorunların yaşandığını göstermektedir. İlgili sorunların en aza indirilebilmesi için sınıf öğretmenlerinin kaynaştırma eğitiminde yapay zekâ destekli öğretimsel uyarlamaları gerçekleştirmeleri çok önemlidir. Bu önem durumundan hareketle araştırmanın amacı; sınıf öğretmenlerinin başarılı kaynaştırma uygulamaları sürecinde yapay zekâ teknolojileri destekli öğretimsel uyarlamalar gerçekleştirme durumlarının belirlenmesidir. Araştırma nitel araştırma kapsamında durum çalışmasıyla desenlenecektir. Araştırma verilerinin toplanması için uzman görüşü alınarak son hali verilen 'Yarı yapılandırılmış Görüşme Soru Formu' kullanılacaktır. Araştırmanın verileri; araştırmacılar tarafından hazırlanmış ve uzman görüşü alınarak son hali verilen yarı yapılandırılmış görüşme sorularının yer aldığı görüşme formu aracılığıyla toplanacaktır. Elde edilen nitel verilerin içerik analizi yoluyla temalar, alt temalar, kodlar oluşturularak yorumlanacaktır. Çalışma grubu 2023-2024 eğitim-öğretim yılında özel ve devlet ilkokullarında görev yapan sınıfında ÖGÖ bulunan 8 ilkokul 1.-4. sınıf öğretmeninden oluşacaktır. İçerik analizi sonucu elde edilecek bulgular, alanyazın çerçevesinde tartışılacak, araştırmaya ilişkin öneriler ve sınırlılıklar belirtilecektir. Anahtar Kelimeler: Yapay zekâ teknolojisi, özel gereksinimli öğrenciler, kaynaştırma eğitimi, etkili öğretim, öğretimsel uyarlamalar.

Anahtar Sözcükler: Yapay zekâ teknolojisi, özel gereksinimli öğrenciler, kaynaştırma eğitimi, etkili öğretim, öğretimsel uyarlamalar.

(254) Why do pragmatics-oriented tasks engage English language learners: An exploratory practice

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As the communicative language teaching models have gained importance since the 1980s (Nunan, 1986), pragmatic competence, which refers to learners' ability to manage the interplay of language and the social context in which language is used (Taguchi, 2011), has attracted attention in second language pedagogy. However, pragmatic competence has specifically been a challenge to integrate into the English as a foreign language (EFL) education context due to the learners' limited opportunities to practice the additional language (L2) outside of the classroom. That said, language educators examined pedagogies fostering pragmatics instruction in EFL contexts. Recent research has focused on using task-based language teaching for L2 pragmatics instruction (Taguchi & Kim, 2018; Sanchez-Hernandez & Baron, 2021), and found that goal-oriented, collaborative tasks provide learners with the opportunities to practice real-world language (Kim & Taguchi, 2015); opportunities that they normally lacked in traditional focus-on-forms language instruction in the Turkish EFL education context. This study presents exploratory practice, a form of practitioner research (Allwright & Hanks, 2009), where the radical positioning of learners as co-researchers (Hanks, 2019) allows practitioners to gain knowledge together with their learners. During an online teacher education project that spanned almost one year, a teacher-educator and two practitioners collaborated both synchronously and asynchronously to create a module. The practitioners co-taught it over six weeks and investigated why pragmatics-oriented tasks influenced 14 university-level EFL learners' puzzling. The qualitative data came from potentially-exploitable-pedagogic-activities, practitioner journals, and semi-structured interviews with learners. Practitioners used axial coding (Saldana, 2021) to investigate their and the learners' puzzles. The findings revealed that the university-level EFL learners in Turkiye perceive forms-focused instruction as the main barrier to language learning. The learners mostly associated their positive experiences with learning real-world English. The practitioners problematized their formerly technicist views of L2 teaching and underscored the importance of pedagogical-meaning making through practitioner research.

Keywords: L2 Pragmatics, task-based language teaching, exploratory practice

(255) Exploring the Impact of MOOCs on Undergraduate Student Participation and Completion Rates in Nigeria Pre, During and Post-COVID-19.

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The 21st century learning ecosystem is characterised by the prominent role of technologically advanced learning spaces. The COVID-19 pandemic disrupted and exposed the limitations of the existing learning ecosystem, resulting in widespread shutdowns of public spaces for safety and survival. A web-based questionnaire was developed to investigate the need for more information regarding Nigerian students' involvement in online learning and the factors contributing to the growing trend of student enrollment in such programmes. Although studies on Massive Open Online Courses (MOOCs) have primarily been conducted by institutions offering these courses, commercial platforms like Coursera and Udacity have yet to provide extensive research data despite possessing sizeable datasets. This study aimed to investigate undergraduate students' participation in MOOCs pre-COVID-19, during and post-COVID-19. The primary objective of this study is to examine the significant increase in undergraduate participation, assess the extent to which this surge has impacted participation levels, identify the significant constraints that may hinder effectiveness, evaluate the completion rates in MOOCs, and understand how participation in these courses leads to temporary job placements. Furthermore, this study seeks to investigate which certification courses undergraduate students pursue while engaging with massive open online courses (MOOCs), examine their perceptions of these courses, and evaluate the success rate of course completion. The outcomes of this research will enhance empirical knowledge regarding Nigerian university students' aspirations and goals for better quality education and improved learning content. Additionally, the findings will provide valuable insights for researchers in educational technology and instructional design, highlighting the needs and desires of African learners and the potential factors that contribute to incomplete course completion and increased participation.

Keywords: Online learning, Engagements, Perception.

(256) Küçük Ölçekli Uzaktan Eğitim Uygulamalarında Ders Notlarının Etkileşimli İçeriklere Dönüştürülmesi: Öğretimsel Mesaj Tasarımı Deneyimlerinin İncelenmesi

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Uzaktan eğitim sürecinde kullanılan eğitim materyallerinin kalitesi giderek önem kazanırken, öğrencilerin etkili, verimli ve eğlenceli bir şekilde öğrenmelerini sağlayabilecek etkileşimli içeriklerin geliştirilmesi büyük önem taşımaktadır. Etkileşimli öğrenme içeriği, uzaktan eğitim sürecinin başarılı bir şekilde yürütülmesinin anahtarı olarak görülebilir. Öğrenme nesnesi olarak da adlandırılabilecek bu materyaller kendi içerisinde giriş, sunuş, etkileşim, çoklu ortam, alıştırma ve özetleme gibi içerik-etkinlik-gezinti yapılarını barındırır. Bu noktada yaygın bir şekilde kullanılan bir uzaktan öğretim standardı olan Paylaşılabilir İçerik Nesnesi Referans Modeli (SCORM) karşımıza çıkmaktadır. SCORM standardına uygun içerik geliştirme sürecinde kullanılabilecek farklı ortamlar, platformlar veya masaüstü programlar bulunmaktadır. Etkileşimli ders içeriklerinin SCORM standardında hazırlanması ve öğretim sürecinde kullanılması profesyonel anlamda analiz, tasarım ve geliştirme süreçlerini zorunlu kılmaktadır. Geleneksel ders notlarının SCORM'a dönüştürülmesine yönelik alanyazına bakıldığında uygulaması güç olan, yüksek bütçe ve geniş ekipler (içerik geliştirici, yayıncı, altyapı sağlayıcı vb.) gerektiren, entegre bir sistem (IMS standardı vb.) sunan veya büyük ölçekli projelerde uygulanabilir modeller bulunmaktadır. Fakat bu modeller küçük ölçekli uygulamalar, içerik geliştiricileri ve uygulayıcıları için oldukça teknik kalmaktadır. Teknolojinin desteğiyle öğretim uygulamalarında basit, hızlı ve uyarlanabilir olan farklı ortamlarda hızlı bir şekilde dönüştürülebilen, kaliteli etkileşimli içeriklerin geliştirilmesi ve uygulanması mümkündür. Bu doğrultuda bu çalışmada içerik geliştirme süreçlerine yönelik zaman ve maliyet kısıtı bulunan küçük ölçekli uzaktan eğitim uygulamalarındaki ders notlarına dayalı hızlı içerik üretim deneyiminin öğretimsel mesaj tasarımı çerçevesinde incelenmesi amaçlanmıştır. Nitel araştırma yöntemlerinden durum çalışmasının izlendiği bu araştırmada içerik geliştirme ekibinde görev almış 10 katılımcı ile yarı yapılandırılmış görüşme yapılmıştır. Elde edilen verilerin analizi sonucunda öğretim tasarımı anlayışının sistematik bir şekilde uygulanmadığı ancak bu konudaki deneyimlerle üretim hızını artıracak şekilde hazır tasarım ve yöntem şablonlarının kullanıldığı ortaya çıkmıştır. Uygulanan yöntemlerin içerik geliştirmede yaratıcılığı sınırlandırdığı ancak hem kurumsal hem de içerik yapı standardının sağlandığı görülmüştür. Bununla birlikte içerik geliştirme alan uzmanlarının katılımının sınırlı olduğu, zaman baskısının bulunduğu ve içerik geliştirme ekibinin sayı ve çeşitliliğinin yetersiz olduğu durumlarda ekipteki deneyimli öğretim tasarımcılarının kurguladığı ilke, şablon, yöntem ve çerçeve üzerinden içerik kalitesinin optimize edilebildiği söylenebilir.

Anahtar Sözcükler: Uzaktan eğitim, Etkileşimli İçerik Geliştirme, Öğretimsel Mesaj Tasarımı, SCORM

(257) Unveiling the Aspects of Technology Adoption in Rural Educational Setting: Insights from Field Research during the COVID-19 lockdown

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This article explores the various aspects of technology adoption in rural Purulia district, West Bengal, schools. This article aims to understand the intricate process influencing the use of technology in rural education settings during the COVID-19 lockdown period through field research data and insight. This study employs convenient sampling to engage key stakeholders (teachers, students, and parents) from two government schools, conducting semi-structured interviews to comprehensively understand the factors influencing technology adoption in rural educational practices among students, teachers, and parents. Teachers report that infrastructure constraints, inadequate training, and a lack of confidence are barriers to incorporating technology in the classroom; younger teachers seem more comfortable using technology in the classroom than their older counterparts. The results show that some students use technology for personal use; variables like digital confidence, digital competence, access to contextualized resources, and socioeconomic status influence its use in education. Findings reveal a complex picture with different degrees of technology integration and perspective across stakeholders. Meanwhile, teachers reported different views about technology, highlighting infrastructure, training, and access issues. On the other hand, students expressed enthusiasm for digital tools but also raised equity, usability, and safety issues. A parent from a lower socio-economic background expressed worries that the opening of the school would result in a loss in family income. The study highlights the challenges of technology adoption in rural education, emphasizing the necessity for tailored strategies to promote inclusive and equitable education and providing guidance for policymakers and educators in navigating the challenges and opportunities.

Keywords: Technology adaptation, COVID-19 lockdown, rural education, technology integration

(258) Açık ve Uzaktan Öğrenmede Sorgulama Topluluğu Üzerine Bibliyometrik Bir Analiz

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Bu çalışmanın amacı, açık ve uzaktan öğrenmede sorgulama topluluğu (Community of Inquiry) üzerine yayınlanmış makalelerin bibliyometrik analizinin yapılmasıdır. Bibliyometrik veriler, Web of Science veri tabanında SSCI ve SSCI-E indexlerinde taranan tüm makaleleri içerecek şekilde alınmıştır. Çalışmada bibliyometrik analiz yöntemi kullanılmıştır. Yapılan tarama sonucuna göre ulaşılan 526 adet makalenin bibliyometrik verileri VOSviewer yazılımı ile analiz edilmiştir. Açık ve uzaktan öğrenmede sorgulama topluluğu ile ilgili makalelerin yayın yıllarına göre dağılımına bakıldığında, yayınların 1999-2024 yılları arasında yapıldığı, en çok yayın yapılan yılların ise 2022 (81 makale), 2023 (72 makale) ve 2021 (59 makale) yılında olduğu görülmüştür. Yayınların ülkelere göre dağılımı incelendiğinde liderliğin Amerika Birleşik Devletleri'nde (205 makale) olduğu; bu ülkeyi sırasıyla Çin (77 makale), Kanada (43 makale), Güney Kore (35 makale), İngiltere (30 makale) ve Türkiye'nin (30 makale) izlediği tespit edilmiştir. Yayınlanan makaleler sırasıyla en çok International Review of Research in Open and Distributed Learning (47 makale), Computers Education (43 adet) ve Internet and Higher Education (41 adet) isimli dergilerinde basılmış ve 1332 yazardan en çok yayın yapan yazar isimlerinin ise Jennifer C. Richardson (13 makale), Peter Shea (10 makale) ve Temi Bidjerano (8 makale) olduğu görülmüştür. Sorgulama topluluğu ile ilgili yayınlarda social presence (sosyal bulunuşluk), community of inquiry (sorgulama topluluğu), teaching presence (öğretimsel bulunuşluk) ve cognitive presence (bilişsel bulunuşluk) ifadeleri en sık kullanılan anahtar kelimelerdir.

Anahtar Sözcükler: Sorgulama topluluğu, açık ve uzaktan öğrenme, bibliyometrik analiz, VOSviewer

(259) Mikro-Kredilerin Kalite Güvencesi ve Akreditasyonunda Öne Çıkan Yaklaşımlar ve Gelecek Senaryoları

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Kalite güvencesi ve akreditasyon mikro-kredilerin yükseköğretime entegrasyonunda önemli konulardan ve güçlüklerden biri olarak görülmektedir. Mikro-krediler, yükseköğretim ve mesleki eğitim sistemlerinin doğasını değiştirmeden, eğitim-öğretim, hayat boyu öğrenme ve istihdam edilebilirlik ekosistemlerini tamamlamak ve geliştirmek için kullanılabilir. Dolayısıyla, mikro-kredilere karşı güven oluşturmak, anlaşılmasını ve tanınmasını kolaylaştırmak, geçerlilik ve güvenirliğini sağlamak ve mikro-kredilerin yükseköğretim kurumlarında sürdürülebilir olmasını desteklemek için kalite güvencesi ve akreditasyon ölçütlerini oluşturmak önemlidir. Bu betimsel çalışmada mikro-kredilerin akreditasyonu ve yükseköğretime entegrasyonu konusunda öne çıkan yaklaşımlar ele alınmaktadır. Çalışma kapsamında uluslararası kuruluşlar ve üniversiteler tarafından 2020- 2024 yılları arasında yayınlanan güncel raporlar taranmış, mikro-kredilerde kalite güvencesi ve akreditasyonla ilgili olan 24 rapor tematik doküman analizi yoluyla incelenmiştir. Yapılan analiz sonucu ulaşılan yüze yakın kod 27 kategori ve 7 tema altında toplanmıştır. Mikro-kredilerde kalite güvencesi süreçleri ve akreditasyon çalışmaları bağlamında ortaya çıkan temalar 1) Mevzuat veya Çerçeve Uyumluluğu 2) Kalite Güvence Süreçlerine Yenilikçi Yaklaşım Getirme 3) Kurumsal Sorumluluk ve Kapasite 4) Dış Kalite Güvencesi 5) Paydaş Katılımı 6) Tanınma ve Taşınabilirlik 7) Şeffaflık ve Hesap Verilebilirlik olarak belirlenmiştir. Temalar ve kategoriler bağlamında öne çıkan yaklaşımlar sunularak, mikro-kredilerde kalite güvencesi ve akreditasyon konusunda gelecek senaryoları tartışılmaktadır.

Anahtar Sözcükler: mikro-krediler, mikro-yeterlilikler, kalite güvencesi, akreditasyon, yükseköğretim, ,

(260) Okul Öncesi Öğretmenlerine Yönelik Eğitimde Yapay Zeka Kullanımı Çalıştayının Tasarım ve Geliştirme Süreci

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Bu çalışmanın amacı, okul öncesi öğretmenlerinin öğretimlerinde yapay zeka uygulamalarını etkili bir şekilde kullanmalarını sağlamak amacıyla planlanan eğitimde yapay zeka kullanımı çalıştayının tasarım ve geliştirme sürecini açıklamaktır. Çalışmada, eğitimde yapay zeka kullanımı çalıştayının tasarım ve geliştirme süreci Analiz, Tasarım, Geliştirme, Uygulama, Değerlendirme (ADDIE) modeline uygun olarak gerçekleştirilmiştir. Analiz aşamasında, hedef kitle olan okul öncesi kurumda görev yapan öğretmenlerin yapay zeka bilgileri ve teknoloji kullanımı düzeyleri gözlenmiş ve eğitimde yapay zeka uygulamalarını kullanma ihtiyaçları belirlenmiştir. Tasarım aşamasında, okul öncesi öğretmenlerinin eğitimde yapay zeka uygulamalarını kullanma ihtiyaçlarına uygun olarak çalıştay programındaki konular ve etkinlikler belirlenmiştir. Geliştirme aşamasında, çalıştay programında yer alan konuların okul öncesi ders programına uyguluğunu değerlendirmek için okul öncesi alanında çalışan iki akademisyenden ve çalıştayda kullanılacak yapay zeka uygulamalarının uygunluğunu değerlendirmek için öğretim teknolojileri alanında çalışana bir akademisyenden uzman görüşü alınmıştır. Uzmanların önerilerine göre çalıştay programında düzeltme ve değişiklikler yapılmış ve çalıştayda yer alan konular ve uygulama etkinliklerine son hali verilmiştir. Uygulama ve değerlendirme aşamalarında bir okul öncesi eğitim kurumunda görev yapmakta olan öğretmenlerle çalıştayın uygulamasının gerçekleştirilmesi ve katılımcıların çalıştay ile ilgili görüşlerinin değerlendirilmesi planlanmaktadır. Değerlendirme aşamasında alanyazında geçerlik ve güvenirlik çalışmaları yapılmış ölçekler ile katılımcıların yapay zeka farkındalık, kaygı ve tutumlarının kontrol gruplu ön-test son-test deneysel desen kullanılarak belirlenmesi de tasarlanmaktadır. Çalışma sonucunda çalıştay programının iyileştirilmesi ve geniş çapta uygulama için önerilerin geliştirilmesi planlanmaktadır.

Anahtar Sözcükler: Yapay zeka, eğitimde yapay zeka uygulamaları, çalıştay, okul öncesi öğretmeni

(261) Bilgi İşlemsel Düşünme ve Programlama Araştırması: Bir Bibliyometrik Analiz

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Bu çalışmada, 2014-2024 yılları arasında Bilgi İşlemsel Düşünme ve Programlama kavramları ile ilgili çalışmaların bibliyometrik analizinin sunulması amaçlanmıştır ve Bilgi İşlemsel Düşünme ve Programlama alanının tematik çerçevesini çizmek amacıyla araştırma odaklarının evrimini izleyecek şekilde görselleştirmeyi ve anahtar kelime tespiti yapmayı da içermektedir. Bilgi İşlemsel Düşünme genel olarak bilgisayar biliminin temel kavramlarını kullanarak problem çözme olarak tanımlanmaktadır. Araştırma yöntemi olarak bibliyometrik analiz yöntemi kullanılmıştır. Çalışmada Prizma yöntemi kullanılarak sistematik bir literatür taraması gerçekleştirilmiştir. Prizma'nın rehberliğinde, Web of Science veritabanından bilgi işlemsel düşünme ve programlama anahtar kelimelerini içeren 630 adet çalışmaya ulaşılmıştır. Araştırmada incelenen çalışmaların yıl, alıntı sayısı, ülke, kurum, yazarlara ve anahtar kelimelere göre dağılımları incelenmiştir. VOSviewer programı kullanılarak analizler yapılmış ve sonuçlar görselleştirilmiştir. Anahtar kelimeler içinde en çok tekrar edenler sırasıyla öncelikle "bilgi işlemsel düşünme" olmakla birlikte bu kelimeyi "programlama", "eğitim" ve "robotik" kavramları takip etmektedir. Bilgi İşlemsel Düşünme ve Programlama kavramlarını içeren çalışmaların sayısının son yıllarda artış gösterdiği görülmektedir. Ülkelere göre yapılan incelemede araştırma çıktıları açısından en yaygın ülkeler olarak ABD, Çin ve Tayvan öne çıkmaktadır.

Anahtar Sözcükler: Bilgi işlemsel düşünme, Programlama, Bibliyometrik analiz

(262) Okul Öncesi Öğretmenlerinin STEM Kavramına Yönelik Özyeterlik İnançlarının İncelenmesi

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Gelişmiş toplumlarda yüksek yaşam kalitesine ulaşmak için nitelikli bir eğitime ihtiyaç duyulmaktadır. Yenilikçi eğitim modelleri eğitim sistemine aktarıldıktan sonra uygulayıcılar aracılığıyla yaygınlaştırılmaktadır. Bu çalışmanın amacı okul öncesi öğretmenlerinin STEM eğitimine yönelik öz-yeterlik inançlarının incelenip, okul öncesi öğretmenlerinin STEM eğitimi ile ilgili kendilerine olan güvenlerini, görüşlerini derslere entegre etme durumlarının incelenmesidir. Bu amaç kapsamında karma yöntemin kullanıldığı çalışmada 127 okul öncesi öğretmenine anket uygulanmış ve veriler istatistiksel olarak analiz edilmiştir. Bir sonraki aşamada 15 öğretmen ile yarı yapılandırılmış görüşmeler yapılmış ve elde edilen veriler doğrultusunda içerik analizi yapılmıştır. Analiz edilen veriler doğrultusunda okul öncesi öğretmenlerinin STEM eğitimine yönelik öz-yeterlik inançlarının yüksek düzeyde olduğu saptanmıştır. Fakat öğretmenlerin derslerinde STEM eğitimine yer verme durumlarının orta düzeyde olduğu görülmüştür. Yapılan görüşmeler sonucunda da öğretmenler STEM eğitimini faydalı bulmakta ancak sınıfların kalabalık olması, fiziki şartların uygun olmaması, materyal eksikliği gibi durumlardan dolayı ders içeriklerini oluştururken zorluk yaşamaktadırlar. Öğretmenlerin hizmet için eğitimlerde uygulamalı STEM eğitimi, teknoloji entegrasyonu vb. eğitimlerin faydalı olacağı düşüncesine sahip oldukları görülmüştür. Okul öncesi öğretmenleri ile alanda uzman akademisyenler bir araya gelerek, öğretmenlerin hazırladıkları STEM etkinlikleri birlikte değerlendirilmesi ve öğretmenlerin akademisyenlerin tecrübelerinden yararlanması sağlanarak STEM etkinliklerine yönelik yeterlik artırılabilir. Öğretmenlerin meslek hayatlarında da akademik bilgilerini geliştirmek için Milli Eğitim Müdürlükleri tarafından STEM Eğitim Merkezleri açılabilir. Öğretmenler için hizmet içi kurslarla STEM etkinlikleri konusunda bilgilendirme yapılabilir.

Anahtar Sözcükler: STEM eğitimi, Okul öncesi, Öz-yeterlik

(263) Dijital Çağda Yükseköğretim: Öğrencilerin Dijital Okuryazarlık Yetkinlikleri

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Çalışmanın amacı, yükseköğretimde öğrenim gören öğrencilerin dijital okuryazarlık düzeylerini belirlenmesidir. Çalışma betimsel bir araştırma niteliğinde tasarlanmıştır. Araştırma yöntemi olarak nicel araştırma yöntemlerinden tarama yöntemi kullanılmıştır. Araştırma grubunu bir devlet üniversitesindeki 213 lisans öğrencisi oluşturmaktadır. Katılımcılar 2023-2024 akademik yılı bahar döneminde dijital okuryazarlık dersini alan öğrenciler arasından uygun örnekleme yöntemiyle gönüllülük esasına göre belirlenmiştir. Çalışmada veri toplama aracı olarak Bayrakçı ve Narmanlıoğlu (2021) tarafından geliştirilen "Dijital Okuryazarlık Ölçeği" kullanılmıştır. 29 maddenin yer aldığı ölçek etik ve sorumluluk, genel bilgi ve işlevsel beceriler, günlük kullanım, sosyal, gizlilik ve güvenlik ile profesyonel üretim alt boyutlarından oluşmaktadır. Toplanan veriler yüzde, frekans ve ortalama gibi betimsel istatistik araçları kullanılarak analiz edilmiştir. Elde edilen bulgulara göre, etik ve sorumluluk ($\overline{x}$=4.01) boyutu en yüksek ortalamaya sahip alt boyut olmuştur. Profesyonel üretim ($\overline{x}$=2.46) boyutu ise en düşük ortalamaya sahip olan alt boyut olmuştur. Maddeler bazında "Çevrimiçi ortamlarda kendimin ve başkalarının kişisel verilerini (fotoğraf, adres, aile bilgileri vb.) korumak için nasıl davranılması gerektiğini bilme" ($\overline{x}$=4.35), "Sosyal ağlardaki paylaşımlarımda ve profilimdeki gizlilik/güvenlik ayarlarını değiştirebilme" ($\overline{x}$=4.10) ile "Çevrimiçi ortamlarda siber zorbalık (aşağılama, küfür, nefret söylemi vb.) ve istismar gibi davranışların etik ve yasal sorumluluklarının farkında olma" ($\overline{x}$=4.08) maddeleri en yüksek ortalamaya sahip maddeler olmuştur. En düşük ortalamaya sahip maddeler ise "Programlama dillerinden (Java, C, Visual Basic, PHP, vb.) en az birini kullanabilme" ($\overline{x}$=2.35), "Yasaklı internet sitelerine erişmek için cihazların proxy/dns ayarlarını değiştirebilme" ($\overline{x}$=2.42) ve "Bilgisayarıma işletim sistemini kurabilirim/format atabilme" ($\overline{x}$=2.55) maddeleri olmuştur. Bu bulgular ışığında, öğrencilerin genel olarak dijital okuryazarlık düzeylerinin yüksek olduğu söylenebilir. Özellikle kişisel ve yasal haklar konusundaki farkındalık, veri güvenliği ve gizlilik konularında bilinçli davranma, bilgi doğrulama ve siber zorbalık gibi konularda öğrencilerin yeterli düzeyde bilgi sahibi oldukları gözlemlenmektedir. Bunula birlikte özellikle donanım ve yazılım teknolojileri hakkında bilgi düzeyi ile programlama dillerini kullanma becerisi gibi teknik konularda öğrencilerin daha fazla desteklenmeye ihtiyacı olduğu görülmektedir.

Anahtar Sözcükler: dijital okuryazarlık, öğrenci yetkinlikleri, yükseköğretim

(264) Üniversite Öğrencilerinin Uzaktan Eğitime Bakış Açıları: Erişilebilirlik ve Kullanılabilirlik Odaklı Bir Değerlendirme

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Çalışmanın amacı, uzaktan eğitim sürecini deneyimleyen üniversite öğrencilerin, uzaktan eğitime bakış açılarını öğrenme yönetim sisteminin özelliklerini de kapsayacak şekilde belirlenmesidir. Çalışma betimsel bir araştırma niteliğinde olup araştırma yöntemi olarak nicel araştırma yöntemlerinden tarama (survey) yöntemi kullanılmıştır. Araştırma grubu uygun örnekleme yöntemiyle belirlenmiştir. Araştırma grubunu bir devlet üniversitesindeki, 2023-2024 eğitim öğretim yılı içerisinde uzaktan bilişim teknolojileri dersini almış, 86 ön lisan-lisans öğrencisi oluşturmaktadır. Çalışma kapsamında veri toplama aracı olarak Gökçe vd. (2021) tarafından geliştirilmiş "Uzaktan Eğitim Sürecini Değerlendirme Ölçeği" kullanılmıştır. 25 maddenin yer aldığı ölçek uzaktan eğitimin erişilebilirlik, kullanılabilirlik, tutum, teknolojik olanaklar ve özyeterlik alt boyutlarından oluşmaktadır. Elde edilen veriler yüzde, frekans ve ortalama gibi betimsel istatistik araçları kullanılarak analiz edilmiştir. Çalışmanın bulgularında, alt boyutlar arasında en yüksek ortalamaya sahip olan erişebilirlik boyutu (X=4.05), en düşük ortalamaya sahip olan boyut ise kullanılabilirlik boyutu (X=2.97) olarak belirlenmiştir. Maddeler bazında ise en yüksek değerlere sahip maddeler sırasıyla şunlardır: Uzaktan eğitim sistemine erişim günün herhangi bir zaman diliminde sağlanabilme (X=4.40), Uzaktan eğitim sürecindeki öğrenme yönetim sisteminde sınavlara katılım sağlayabilme (X=4.13), uzaktan eğitim sistemine erişim, herhangi bir mekândan sağlanabilmesi (X=4.11), En düşük değerlere sahip maddeler ise Uzaktan eğitim sistemi, kişiye özgü bir ortam sağlaması (X=2.20), uzaktan eğitimin alınan tüm derslerde uygulanabilirliği (X=2.35) ve uzaktan eğitim sistemi, kullanıcılara yardımcı rehber dokümanlar sunması (X=2.59) şeklinde sıralanmıştır. Sonuç olarak, uzaktan eğitim sürecini iyileştirmek ve öğrencilerin deneyimlerini optimize etmek için erişilebilirlik ve kullanılabilirlik konularına odaklanmak önem arz etmektedir. Özellikle, kişiye özgü öğrenme ortamlarının sağlanması ve kullanıcıların ihtiyaç duyabilecekleri rehberlik ve destek dokümanlarının sunulması öğrencilerin ihtiyaçlarına daha iyi yanıt verebilmesi için dikkate alınması gerektiğini vurgulamaktadır. Bu şekilde, uzaktan eğitim süreci daha etkili ve tatmin edici hale getirilebilir, öğrencilerin öğrenme hedeflerine daha iyi ulaşmaları sağlanabilir.

Anahtar Sözcükler: uzaktan eğitim, öğrenci görüşü, erişilebilirlik, kullanılabilirlik

(265) Investigation of the Relationship Between Mathematics Teacher Candidates' Use Of Web 2.0 Tools and Artificial Intelligence Literacy

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The use of Web 2.0 tools and artificial intelligence applications in education has tremendous learning potential. Especially in mathematics education, Web 2.0 tools have undeniable contributions in concretizing abstract concepts, enabling individuals to learn collaboratively, increasing their motivation, developing critical thinking skills, and making lessons fun. Artificial intelligence, which will be indispensable in all areas of life in the future, enables us to make sense of life by using logic, just as in mathematics education. With artificial intelligence applications starting to take an active role in many areas of life, from finance to health, from industry to production, and from economy to education, it can be said that artificial intelligence literacy has become a necessity for individuals. In this context, teachers and teacher candidates, who are one of the most basic components in the realization of quality education, are expected to have knowledge about web 2.0 tools and artificial intelligence in teaching. In this study, it was aimed to determine the usage levels of web 2.0 tools and artificial intelligence literacy levels of mathematics teacher candidates and to reveal the relationship between the use of web 2.0 tools and artificial intelligence literacy. In order to determine the use of Web 2.0 tools and artificial intelligence literacy levels of elementary mathematics teacher candidates, the research design was created using the survey model. The study group of the research consists of elementary mathematics teacher candidates studying in the elementary mathematics teaching program of a state university in the Marmara region. "Web 2.0 Tools Usage Competency Scale" and "Artificial Intelligence Literacy Scale" were used to obtain the research data. The data obtained from teacher candidates online were analyzed using parametric and nonparametric analysis methods in the SPSS package program. In line with the findings obtained, the competencies of pre-service elementary mathematics teachers to use Web 2.0 tools and artificial intelligence literacy levels were examined within the framework of various variables such as grade level and gender, the level of relationship between the use of Web 2.0 tools and artificial intelligence literacy was determined and suggestions were made for future studies.

Anahtar Sözcükler: Artificial intelligence literacy, mathematics education, Web 2.0 tools

(266) The Effect of Laboratory Experiment and Experiment Simulation Activities on Students' Ability to Identify and Control Variables in Science Course

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In the 5th grade "electrical circuit elements / physical phenomena" unit of the science curriculum, the concepts of dependent, independent and controlled variables are discussed for the first time within the scope of the topic "variables affecting the brightness of a lamp in a simple electrical circuit". The same concepts are then addressed in the experiment "factors affecting the dissolution rate" in the mixtures unit in 7th grade, in the experiment "factors affecting the germination of seeds" in the "reproduction, growth and development" unit in plants and animals, and in the experiment "the dependence of heating on the type, mass and/or temperature change of the substance" in the interaction of matter with heat unit in 8th grade. In the curriculum, it is expected to explain the concept groups of dependent, independent and controlled variable to students with examples through experiments to be carried out at different grade levels. As can be seen, in the science curriculum, the ability of students to correctly determine and control variables in the experimental processes to be carried out at the secondary school level is considered within the scope of scientific process skills and it is very important for students to acquire this skill. Despite the importance of the ability to correctly determine and control variables, it is revealed in various studies in the literature that students have difficulties in acquiring this skill. The current practice for gaining this skill is not to teach the subject separately, but to deal with it within the scope of experiments. However, today, experiments in science courses can also be carried out with simulations of experiments on interactive boards in classrooms. The aim of this study is to determine the effect of experiments and technology-supported experiments on middle school students' ability to identify and control variables and their motivation towards science course. For this purpose, in one of the study groups, experiments were carried out physically and practically in the laboratory, while in the other study group, experiments were carried out with experiment simulations using an interactive board. Quasi-experimental design, one of the quantitative research methods, was used in the study. Participants consisted of 7th grade students. In order to collect data, the "Variables Determination and Control Test (VDCT)" and "Motivation Scale for Science Teaching" were administered before and after the experiments.

Anahtar Sözcükler: Ability to identify and control variables, science process skills, science, experiment, simulation

(267) Mentorship for Next-Generation Leadership and Innovation in the Digital World

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In the contemporary digital landscape, numerous non-governmental entities have shifted their focus towards addressing gender inequality as a component of their sustainable development endeavors, in response to the escalating demand for labor. The objective is to nurture female talents within the domains of Science, Technology, Engineering, and Mathematics (STEM) through digital mentorship initiatives, with the aim of cultivating them into the vanguards of the next generation and propelling innovation forward. This scholarly discourse seeks to delve into the pivotal role of mentorship programs in fostering the development of emerging leaders and catalyzing innovation, drawing upon ongoing mentorship schemes spearheaded by eminent entities like the Women in Technology Association and TurkishWin as exemplars. Furthermore, it endeavors to elucidate the significance of digital tools employed in such programs, delineating their pros and cons as perceived through the lenses of participating mentors, mentees, and program administrators.

Keywords: Mentorship, Next-generation leadership, Innovation, Digital mentorship, STEM menoring, Gender equality, Sustainable development goals

(268) Exploring Higher Education's Hesitance To Web3 Adoption

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Web3 heralds a new era for the Internet. By leveraging blockchain technology and embracing decentralization as its core principles, it offers a transformative array of technologies that can fundamentally alter various fields, including research and education (Filipčić, 2022). Enhancing teaching and learning methodologies and decentralizing ownership and control of learning and data are among the advantages of Web3 (Savelyeva & Park, 2022). Higher education institutions face mounting pressure to align with societal transformation, industry requirements, and educational needs. Thus, some universities are experimenting with and implementing Web3 as an emergent technology that enhances teaching and learning (Hussain, 2012). However, blockchain technology's integration into higher education is still in its infancy, marked by modest adoption rates. The enduring viability and effective assimilation of any new technology within education rely on educators' acceptance (Davis et al., 2009; Hennessy et al., 2007) and understanding why and how to use these tools to make the adoption successful and sustainable (Moges, 2013; Jimoyiannis et al., 2013). Many studies have investigated the adoption of ICT in Web 2.0; however, a dearth of studies has focused on Web3 adoption in higher education. This systematic literature review examines the reluctance of higher education institutions to embrace Web3 technologies, providing valuable insights for researchers, educators, and decision-makers in the higher education sector.

Keywords: Web3 technology acceptance, Web3 in higher education, Blockchain technology acceptance, DeSci, decentralization of education.

(269) Learning Design activities to promote learning Quantitative Techniques in an online MBA course: Learner perceptions on the learning experience

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The COVID19 pandemic enabled academics to explore the full potential of online learning via various tools, methods and techniques. One such novel idea was experimented with the course 'Quantitative Techniques' of the Commonwealth Executive Masters in Business Administration programme of The Open University of Sri Lanka (OUSL). This paper examines how learners perceived this novel learner centered learning design in co-constructing knowledge with their peers. Before the pandemic, the practice was to deliver the content through multiple delivery methods (Discussion classes/Day School, print material) and the formative assessment was based on an individual assignment to quantitatively analyze a dataset and prepare a report. Experimenting with new online learning technologies, this traditional approach was changed towards a learner-centered approach, promoting knowledge generation through collaborative learning, which also brings distant learners together. In designing the learning experiences, the seven broad Learning Design activities developed by the Open University UK were taken into consideration. Day Schools delivered through ZOOM. ZOOM recordings and other learning resources uploaded in the LMS. Reflective writing after each day school was made mandatory aligning with formative assessments. To engage learners in the quantitative techniques assignment component, a pre prepared questionnaire was provided to gather data for analysis. A series of group activities were formulated in the LMS and ZOOM: to initiate the group discussions on assignment, provide summary report of discussions, analyze data, draft a report, peer review before the final report, present a poster on the report, and finally to select the 'leaners' choice' after evaluating the presentations. A mixed approach of quantitative and qualitative research methods was used to gather learner perceptions by administering a questionnaire with open and close ended questions. Leaners' reflective writings in the LMS were also used to analyze learning. Findings revealed learners' satisfaction towards the new learning experience and how they delve deeper into the world of quantitative techniques. Challenges experienced by them were also informed, and researchers are planning to re-visit how learners' challenges can be minimized before deliver this course for the next batch.

Keywords: Learning Design activities, Collaborative learning, Co-construction of knowledge, Online learning, Reflective writing, Quantitative Techniques, MBA online course

(270) Meslek Lisesi Öğrencilerinin Siber Aylaklık Davranışları, Öz Düzenleyici Öğrenme Stratejileri ve Sınıf İklimi Algıları Arasındaki İlişkilerin İncelenmesi

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Bu araştırmanın amacı, meslek lisesi bilişim teknolojileri alanı 11. sınıf öğrencilerinin siber aylaklık davranışları, öz-düzenleyici öğrenme stratejileri ve sınıf iklimi algıları arasındaki ilişkileri incelemektir. Korelasyonel modele dayalı olarak tasarlanan araştırmanın örneklemini 2023-2024 eğitim öğretim yılında Ankara İli Çankaya ve Yenimahalle İlçesindeki Millî Eğitim Bakanlığı'na bağlı meslek liseleri bilişim teknolojileri alanı yazılım geliştirme dalında okuyan 395 11. sınıf öğrencisi oluşturmaktadır. Araştırmada veri toplamak amacıyla "Siber Aylaklık Ölçeği", "Öz Düzenleyici Öğrenme Stratejileri Ölçeği" ile "Öğrenciler Tarafından Algılanan Sınıf İklimi Ölçeği" kullanılmıştır. Araştırmanın problemleri doğrultusunda t testi, tek yönlü varyans analizi, korelasyon analizi ve regresyon analizi yapılmıştır. Araştırma sonucunda öğrencilerin siber aylaklık davranışlarının cinsiyet, not ortalaması, öğrenci sayısı ve bilgisayar kullanımına göre anlamlı biçimde farklılaşmadığı belirlenmiştir. Öğrencilerin öz-düzenleyici öğrenme stratejilerini kullanımlarının, öğrenci sayısı ve bilgisayar kullanımı açısından anlamlı biçimde farklılaşmadığı; cinsiyet ve not ortalamasına göre ise anlamlı biçimde farklılaştığı saptanmıştır. Benzer biçimde, öğrencilerin sınıf iklimi algısının not ortalamasına göre anlamlı biçimde farklılaştığı; cinsiyet, öğrenci sayısı ve bilgisayar kullanımına göre ise farklılaşmadığı belirlenmiştir. Korelasyon analizi sonucunda, siber aylaklık davranışları ve öz-düzenleyici öğrenme stratejileri arasında anlamlı bir ilişki olmadığı, siber aylaklık davranışları ile öğrenciler tarafından algılanan sınıf iklimi arasında ise zayıf düzeyde pozitif yönlü ve anlamlı bir ilişki olduğu görülmüştür. Regresyon analizi sonuçlarına göre, öz-düzenleyici öğrenme stratejileri ve algılanan sınıf ikliminin siber aylaklık davranışlarını yordamasına yönelik kurulan modelin anlamlı olduğu, söz konusu değişkenlerin birlikte siber aylaklık davranışlarındaki toplam varyansın %2'sini açıkladığı belirlenmiştir. Regresyon katsayılarının anlamlılığına ilişkin sonuçlar değerlendirildiğinde ise, yalnızca sınıf iklimi algısının, siber aylaklık davranışları için anlamlı bir yordayıcı olduğu belirlenmiştir. Sonuçlara dayalı olarak, öğrencilerin siber aylaklık davranışlarını azaltmak için sınıf iklimi algılarının desteklenmesi, bu amaçla öğrenci görüşmeleri ya da grup çalışmaları kullanılarak sınıf ortamlarında iyileştirilmesi gereken unsurların tespit edilmesi ve eksikliklere yönelik çalışmaların yapılması önerilmiştir.

Anahtar Sözcükler: Siber aylaklık, öz-düzenleyici öğrenme stratejileri, algılanan sınıf iklimi

(271) A Comprehensive Literature Review on Blockchain Applications in Charitable Donations and Transparency

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Blockchain technology, renowned due to its decentralized and unchangeable nature, it has become a potential game-changer in the realm of charitable donations. This literature review meticulously examines twelve distinct research papers, each contributing a unique perspective on how blockchain can reshape the landscape of charitable giving by enhancing transparency, accountability, and operational efficiency. Through a systematic analysis of these papers, this review synthesizes their findings, methodologies, and future directions to shed light on the transformative potential of blockchain in the charitable sector.

Keywords: Donations, Blockchain, Dapps(decentralized applications),Transparency, Traceability, to know-your-customer (KYC) and anti-money laundering (AML) laws

(272) Navigating Post-Pandemic Terrain in Goa, India: French Language Educators' TPACK Proficiency and ODL Preparedness

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With the pandemic, it has become even more essential to provide learning in Online Distance Learning (ODL) mode. This is a Herculean challenge considering the teachers needed to be reskilled and innovative solutions needed to be found in low network and low infrastructure schools in a huge country like India. The stakeholders in Goa, India, responded to this challenge by conducting various training sessions to improve the technological skills of the teachers. During this period, the Ministry of Education also put into action the National Education Policy (NEP 2020) which encourages the use of technology to improve learning experience. In addition, at the school level, Digital Infrastructure for Knowledge Sharing (DIKSHA), a national platform was also launched to be a repository of eContent for teachers, learners and caregivers. Teachers from the country were assigned the responsibility of collaboratively curating and creating eContent. Simultaneously teachers were also trained through National Initiative for School Heads' and Teachers' Holistic Advancement (NISHTHA) in the online mode conducted on DIKSHA and NISHTHA Portals. Considering the focus on ODL in NEP 2020, it is essential that teachers have the required techno-pedagogical skills. Thus, we attempt to measure the level of Technological Pedagogical and Content Knowledge of French language teachers in Goa, India and also to what extent variables such as zone and age play an important role. We collected data by means of a TPACK questionnaire developed by Archambault and Crippen, 2009; Schmidt and al., 2009 and adapted by Elas and al (2019) for the English Language. Following which in-depth interviews were conducted. The results of this study obtained a notable score of TPACK (Technological Pedagogical and Content Knowledge) of teachers in Goa, India. Based on data from the different variables, recommendations are made for training workshops in order to equip teachers with the required skills for ODL.

Keywords: French language teachers, TPACK, teacher training, ODL, techno-pedagogical competence,

(273) An Investigation of Secondary School Students' Knowledge on Savings: The Writing-to-Learn Activities

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The word "savings" is defined in the Turkish Language Association (TDK) dictionary in different ways such as saving money, goods, etc., the authority to use something as one wishes, careful use of money or anything that can be consumed, spending carefully. Saving is one of the core values emphasized in the social studies course. As a matter of fact, when the words "saving" and "social studies" are searched together in Google Scholar, it is seen that the number of studies on the subject is 4,490 (It is the result of the search performed on 05.05.2024). Issues such as saving, conscious use of resources, recycling, reducing waste, effective use of money, making a correct budget planning, distinguishing between needs and wants, giving priority to meeting basic needs, preparing a shopping list, and situations that conscious consumers should pay attention to have found a wide coverage in the 2018 social studies curriculum at every grade level. The saving value has been added to the 2018 social studies curriculum, and it is aimed to make students adopt behaviors such as being frugal and avoiding waste in the center of the concept of conscious consumer. In the present study, it was intended to reveal the knowledge of middle school students about the value of saving and how to be thrifty. The study is a basic qualitative research design and was conducted with 6th and 7th grade middle school students. The topic of saving is one of the socioscientific topics in the social studies curriculum (e.g., Yes to consumption, no to waste, I use resources correctly). Therefore, it was decided to employ the writing-to-learn activities, which is a method suitable for the complex nature of socioscientific issues that require multidimensional thinking, to collect research data. Students were asked to write a letter explaining the concept of saving and the precautions to be taken for saving in order to raise awareness of the society in one class hour. At this stage, data analysis is in progress. The research data will be analyzed via content analysis. After the data analysis is completed, the research findings will be reported, the obtained results will be discussed in the light of the conclusions of previous studies and the theoretical framework, and suggestions for practice and further research will be presented.

Anahtar Sözcükler: Social Studies, saving, the writing-to-learn activities

(274) Öğretmenlerin Yapay Zekâ Okuryazarlığı Düzeylerinin İncelenmesi

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Son zamanlarda yapay zeka alanındaki hızlı değişimler tüm sektörleri etkilediği gibi eğitimi de çok yakından etkilemiştir. Öğretmenlerin bu teknolojiyle ilgili endişe duydukları görülürken bir yandan da kendilerini adapte etmeleri kaçınılmaz bir hal almıştır. Z kuşağının hızlı adaptasyonu öğretmenlerinde öğretim süreçlerine bu teknolojileri entegre etmeleri gerektiği kaçınılmaz olmuştur. Yapay zeka okuryazarlığı bu teknolojinin sağladığı faydalar ve zararları, etik kullanımını ve genele etkisini anlamayı içermektedir. Yapay zeka okuryazarlığına sahip olmak bu teknolojiyi anlamalarına ve profesyonel ve günlük yaşantılarına entegre etmelerine yardımcı olması beklenmektedir. Bu durumda da öğretmenlerin etkili bir yapay zeka entegrasyonu sağlayabilmeleri için yapay zeka okuryazarlığına sahip olmaları gerektiği öngörülebilir. Bu araştırmada öğretmenlerin yapay zekâ okuryazarlık durumlarının ve yapay zekâ ile ilgili düşüncelerinin belirlenmesi amaçlanmıştır. Araştırmanın katılımcılarını Sakarya ilinde görev yapan öğretmenler oluşturmaktadır. Araştırmaya yaklaşık 500 öğretmenin katılması öngörülmektedir. Araştırmanın nicel bölümünde Yapay Zekâ Okuryazarlık Ölçeği ve Kişisel Bilgi Formu ile veriler toplanarak IBM SPSS 24.0 paket programında istatiksel analizi yapılacaktır. Nitel bölümde ise yarı yapılanmış görüşme formu aracılığıyla veriler toplanacaktır.

Anahtar Sözcükler: Öğretmen, yapay zekâ okuryazarlığı, yapay zekâ

(275) Evaluating "QBL - Question Based Learning", a Question Based Approach to Teach Programming at Tertiary Level of Education

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Learning programming is found to be difficult in fundamental programming courses. This paper looks at the gaps proposed by researchers in the teaching/learning processes and as a solution looks at the Theory of Constructivism. With the research question "Does the lecture delivery methodology convert the Theory of constructivism into a process of learning?" This research proposes a question based methodology "QBL - Question Based Learning" to convert programming lectures into a series of progressive questions. A fundamental programming course was designed using this methodology and was used in a private university in Bangladesh where students learn the fundamentals of Python programming language. The preliminary results of around 300 students are presented in this paper. The students were asked how much the concepts helped to learn the next course of Data Structures, self-rating of coding skills, level of confidence and perception of the question based teaching methodology. All results were compared with a control group consisting of all other teachers teaching the same course. Statistical analysis from the survey results point to the effectiveness of QBL in programming teaching. It has been found that students who are taught using this methodology are doing better on the next programming courses like Data Structures, Algorithms, etc., indicating a high retention rate. As programming is a STEAM course, the efficacy of QBL should be tested in advanced courses in Computer Science.

Keywords: programming, programming teaching, questions, theory of constructivism, confidence level, retention rate.

(276) Maker modeli ile hazırlanan farklılaştırılmış geometri etkinlikleri ve özel yetenekli öğrenciler

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Araştırmanın amacı, Maker Modeli temel alınarak farklılaştırılmış geometri öğretiminin özel yetenekli öğrencilerde; geometriye yönelik tutum, problem çözme becerilerine yönelik algı, yaratıcı düşünme becerileri ve eleştirel düşünmeye yönelik eğilimleri üzerindeki etkisini incelemektir. Araştırma deneysel desende bir karma yöntem araştırmasıdır. Araştırmanın nicel yöntemi kapsamında ön-son test tek gruplu yarı deneysel desen, nitel yöntem kapsamında durum çalışması deseni temel alınmıştır. Nicel verilerin analizinde t testi ve betimsel istatistikler, nitel verilerin analizinde içerik analizi kullanılmıştır. Çalışma 2021-2022 eğitim öğretim yarıyılında Güney Marmara Bölgesi"nde bulunan bir Bilim ve Sanat Merkezi, 8. sınıf düzeyinde Özel Yetenekleri Geliştirme programında öğrenim gören 30 öğrencinin katılımıyla gerçekleştirilmiştir. Çalışma grubu amaçsal örnekleme yöntemlerinden ölçüt örnekleme yöntemiyle belirlenmiştir. Araştırmada, üçgenin yardımcı elemanları ve özel merkez noktaları kazanımları temel alınarak farklılaştırılmış ders planları oluşturulmuş ve çalışma grubuna 20 ders saati olarak uygulanmıştır. Araştırmada nicel veri toplama aracı olarak "Geometriye Yönelik Tutum Ölçeği", "Üstün Yetenekli Öğrencileri İçin Problem Çözme Becerilerine Yönelik Algı Ölçeği", "Ne Kadar Yaratıcısınız? Yaratıcılık Ölçeği", "UF/EMI Eleştirel Düşünme Eğilim Ölçeği", "Grup Değerlendirme Formu" ve "Final Ürünü Dereceli Puanlama Anahtarı" kullanılmıştır. Farklılaştırılmış geometri öğretimine dair öğrencilerin görüşlerini belirlemek amacı ile "Öğrenci Günlükleri" ve "Yarı yapılandırılmış Öğrenci Görüşme Formu" kullanılmıştır. Geliştirilen farklılaştırılmış geometri öğretimi öğrencilerin; geometriye yönelik tutum, problem çözme becerilerine yönelik algı, eleştirel düşünmeye ilişkin eğilim ve yaratıcı düşünme düzeylerini anlamlı düzeyde arttırdığı ve grup içi etkileşimleri üzerinde olumlu etki oluşturduğu sonucuna ulaşılmıştır. Ayrıca öğrenciler öğretim içeriğini ilgi çekici, sürecin üst düzey düşünmeyi desteklediği, ürün çalışmalarının yaratıcı düşünme için etkili olduğu ve öğrenci merkezli öğrenme ortamının kalıcı öğrenmeyi sağladığı yönünde görüş bildirmişlerdir. İlgili çalışma 2023 Haziran tarihinde Balıkesir Üniversitesi Fen Bilimleri Enstitüsü Matematik ve Fen Bilimleri Eğitiminde Yüksek Lisans tezi olarak kabul edilmiştir.

Anahtar Sözcükler: Özel yetenekli öğrenciler, Farklılaştırılmış öğretim, Maker Model , Geometri öğretimi

(277) Digital translanguaging against the language gap in Italian schools: the project "L'AltRoparlante" coordinated by the University for Foreigners of Siena.

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In the globalized world, people communicate using their native language, but also all the languages they know complemented using multimodal elements, such as images and videos. This idea of using the entire linguistic and semiotic repertoire for communication is called translanguaging. There are several definitions of translanguaging, which can be carried out, but above all implemented also through digital tools, including electronic dictionaries, BabelNet and ImagAct, which promote an interrelated vision of languages among students, enhancing linguistic and cultural diversity. From these considerations, the project "L'AltRoparlante" was born, coordinated by the University for Foreigners of Siena, which promotes and disseminates translanguaging teaching practices for the enhancement and use of all languages at school, deconstructing hierarchies on a linguistic basis and any stereotypes. In fact, the survey of the languages and dialects spoken or known by the pupils involved was carried out both using ethnographic methodologies and through playful activities aimed at raising awareness of the linguistic variety within their classes. The results of the analysis show perceptual changes towards the multilingual dimension of the classrooms and a general positive impact of the activities, especially in terms of inclusiveness and ordinariness in the promotion of multilingual teaching practices. Finally, in the present work, many gaps in the literature with respect to this issue are still detected and concludes by identifying potential future steps in this area.

Keywords: translanguaging, digital, school, foreigners, children,

(278) Adaptive Learning Environments: A Systematic Review Example

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Adaptive learning environments are learning environments that personalize instruction by taking into account the learner's knowledge, interests, and goals. With the advancement of technology and artificial intelligence, adaptive learning environments are no longer considered independent of technology. Designing adaptive learning environments based on the interests and needs of the learner has become much easier with the development of technology and artificial intelligence. In this study, articles and thesis studies on adaptive learning environments conducted between 2008 and 2023 were examined through a systematic literature review. Articles published on the subject were selected as study material by scanning the TR Index, Education Resources Information Center (ERIC), and Social Sciences Citation Index (SSCI) databases. Keywords such as "adaptive learning, adaptive learning environments in education, adaptive learning, adaptive learning in education" were used during the publication scan. An examination form was used during the review of the articles for the research. The research sample consists of 14 thesis studies and 24 articles. Seventeen of the articles are foreign, and seven are domestic studies. When the results of the studies are examined, it is observed that mostly mixed and experimental research methods were used in the research, and when the findings of the adaptive learning design process were examined, emphasis was placed on prior knowledge level and learning styles in the individual characteristics considered in learner modeling. When adaptation modeling types are examined, mostly content/content navigation types are used. When the updating approaches of adaptive learning environments are examined, it is seen that dynamic/static and dynamic approaches are mostly used. It has been concluded that adaptive learning environments have a positive effect on students' academic achievements and attitudes.

Keywords: Adaptive learning, adaptive learning environments, compilation, content, navigation

(279) Investigation of Distance Professional Development Activities within the Scope of Mathematics Education and Digital Competence: The Case of Teacher Informatics Network (ÖBA)

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The Teacher Information Network (ÖBA) is a system where teachers can receive certificates related to their professional and personal development, replacing seminars. Established to support teachers' personal and professional development in a multidimensional way, the ÖBA system became available to teachers for the first time during the semester break of the 2021-2022 academic year. With this system, the aim is to create a platform where teachers can access training such as intellectual property rights, education of children in need of protection (for guidance and psychological counselors), development of digital skills (especially in distance teaching), activity-based lesson design, library organization and use, climate change, first aid, and development of English teaching skills. Thanks to this platform, teachers were able to complete their professional studies through distance education during seminar periods without having to go to their schools, similar to the mid-term vacation. In this context, ÖBA has undertaken an important task in supporting teachers' professional and personal development. The present study aims to examine the educational objectives of the training in the ÖBA system concerning mathematics education and the DigComp framework, a concept defined by the European Union. According to the DigComp 2.2 framework, digital competence consists of five dimensions: information and data literacy, communication and collaboration, digital content creation, security, and problem-solving. In this document analysis study, based on a qualitative research approach, the training objectives for vocational training in the ÖBA system were analyzed using the content analysis method with computer-aided qualitative data analysis software. The initial results from the ongoing content analysis process show that the trainings in the distance professional development system have limited coverage in the context of mathematics education, while placing greater emphasis on information and data literacy, one of the sub-dimensions of the DigComp 2.2 framework. Based on the data obtained from the study, various suggestions will be made to content designers and researchers.

Anahtar Sözcükler: Teacher Information Network, Digital Competence, Mathematics, Professional Development

(280) Patterns of Interaction during Peer Feedback Exchange in Online EFL Writing Lessons

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Little is still known about interaction patterns learners form while exchanging peer feedback particularly when working with different peers. To address this gap, the current study replicates the study conducted by Tajabadi et al. (2020) by analyzing patterns of interaction while exchanging feedback on academic paragraphs written by 16 English as a foreign language (EFL) learners enrolled at a state university in Türkiye. The participants were asked to write three academic paragraphs and submit them online. Following a mini training session, the participants were paired with a different student for each paragraph feedback session and exchanged their paragraphs. Then they held an online meeting on Microsoft Teams with their partner and exchanged feedback. The meetings were recorded and shared with the researcher. Next, the students revised their paragraphs considering the peer feedback. They made the changes on their paragraphs only if they found the peer feedback useful and necessary. Patterns of interaction were analyzed according to Storch's (2002) framework. According to it, there are four interaction patterns placed on mutuality and equality axes which are named as collaborative, dominant/dominant, dominant/passive, and expert/novice. The results showed that the most common pattern was expert/novice, and the least common one was dominant/dominant and dominant/novice. This study is believed to shed light on EFL learners' roles as writers and reviewers.

Keywords: writing, peer feedback, interaction, pattern

(281) Examining the Link Between Pre-service EFL Teachers' Digital Homework Engagement and Online Course Achievement

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In foreign language education, engagement is acknowledged as a fundamental element for effective learning, impacting both the learning and application of linguistic abilities. Numerous studies highlight how students' engagement with online homework, including aspects such as submission rates and academic performance influences their educational success (e.g., Lu et al., 2018; Zacharis, 2015). Despite expectations, many students submit assignments just before deadlines, affecting performance and increasing stress (Dalli, 2014; Nonis, 1998; Pozdeeva, 2019). Research indicates that students who submit their homework early often achieve better results in online learning environments and exhibit higher performance in their coursework (Akçapınar & Kokoç, 2020; Paule-Ruiz et al., 2015). This case study explores the digital homework engagement characteristics of 36 pre-service EFL teachers, particularly focusing on their homework completion times and achievement as they navigate online courses introduced in a second language. The results suggested that there was no significant relationship between the timing of homework submission and the performance. The results challenge existing assumptions about the straightforward benefits of early assignment submission on academic performance, suggesting that other individual or environmental factors may play more critical roles in influencing students' engagement with digital homework in online language learning settings. This insight could lead to a reevaluation of strategies used in EFL teaching, emphasizing a more nuanced understanding of students' digital homework engagement

Keywords: preservice teachers, digital homework engagement, online courses, EFL

(282) The Adaptation of the Achievement Emotions in Mathematics Self-Report Scale to Turkish Culture

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The emotions; plays a significant role in shaping students' engagement, success, and overall personality development. The achievement emotions acts as a mediator between students' attitudes and viewpoints regarding mathematics and their academic accomplishments in the discipline. Additionally, contingent upon students' self-perceptions of their capabilities and their understanding of the scholastic milieu, their emotional inclinations can shape their strategies when confronted with mathematical challenges. Consequently, discerning the achievement emotions that influence students' motivation and academic performance in mathematics instruction holds promise for alleviating impediments to learning within the field. This study endeavors to culturally adapt a reliable and valid measurement tool, specifically the Mathematics Achievement Emotions Self-Report Scale developed by Gomez et al. (2020), for use in Turkish educational settings. The research involves 302 college students from western Turkey. The data collection process includes translation and back-translation procedures to ensure linguistic validity, as well as expert consultations. Furthermore, the study will encompass criterion validity, construct validity, and reliability analyses. Subsequently, the research findings will be presented in due course.

Anahtar Sözcükler: achievement emotions, mathematics education, scale adaptation

(283) Bilgi ve İletişim Teknolojileri Kullanımının Matematik Okuryazarlığına Etkisi: PISA 2022 Türkiye, Singapur ve Estonya Örneği

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Bilgi ve iletişim teknolojileri (BİT), günlük yaşamın neredeyse tüm yönlerinde giderek daha önemli bir rol oynamaktadır. Teknoloji sadece insanların iş ve mesleki yaşamlarını derinden dönüştürmekle kalmamakta, aynı zamanda insanların etkileşimde bulunduğu, iletişim kurduğu, bilgi alıp paylaştığı ve hatta hükümetlerin vatandaşlara kamu hizmetleri sunma şeklini dahi değiştirmektedir. BİT eğitimin de birçok yönünü önemli ölçüde etkilemektedir. Öğrencilere okul dışında öğrenme fırsatları sunmakta ve öğretmenlerin pedagojik yaklaşımlarını ve öğrencilerin okuldaki öğrenme deneyimini değiştirme potansiyeli bulunmaktadır. Eğitim sistemleri giderek artan bir şekilde müfredatlarına dijital yeterlilikleri entegre etmektedir. Bit kullanımının öğrenci performansı üzerine birçok çalışma yapılmaktadır ve olumlu ve olumsuz etkilerine dair birçok farklı bulgulara ulaşılmıştır. Bu araştırmada PISA 2022 sonuçlarına göre, BİT kullanımına ilişkin okul ve okul dışı ortamda dijital araçlara erişim sıklığı, erişim kalitesi, dijital araçları kullanma hakkında özgüven, derste öğrenme amaçlı dijital araçların kullanılması, öğrencilerin dijital araçlar aracılığı ile desteklenmesi gibi değişkenlerin öğrencilerin matematik okuryazarlığı düzeyini ne derecede açıkladığı incelenmiştir. Çalışmada PISA 2022 veri tabanında yer alan Singapur, Estonya ve Türkiye'ye ait veriler kullanılmıştır. Verilerin analizi için, PISA verilerinin katmanlı yapısı sebebiyle IDB Analyzer programı kullanılmış ve değişkenlerin öğrencilerin matematik okuryazarlıklarını yordama düzeylerinin tespiti için doğrusal regresyon analizi yapılmıştır. Farklı ülkelerde farklı değişkenlerin matematik okuryazarlığını farklı düzeylerde etkilediği sonucuna ulaşılmıştır.

Anahtar Sözcükler: PISA 2022, Bilgi ve İletişim Teknolojileri (BİT), Matematik Okuryazarlığı

(284) Altıncı Sınıf Öğrencilerinin Hazırlıklı Konuşma Becerilerinin Geliştirilmesinde Yenilikçi Teknoloji Uygulamalarının Kullanımı

Yasin Öncel

Kemal Furkan Köse

Özet Gelişen teknoloji ile birlikte teknolojinin eğitimde ne kadar önemli olduğu bir kere daha anlaşılmış ve bu teknolojik gelişmeler eğitime entegre edilmeye devam edilmektedir. Artırılmış gerçeklik, yapay zeka destekli araçlar gibi yenilikçi teknoloji uygulamaları artık eğitimin önemli bir aracı haline gelmeye başlamıştır. Türkçe dersinin bir becerisi olan konuşma becerisini geliştirmek için bu bağlamda yenilikçi teknolojilerden faydalanmak kaçınılmaz olmuştur. Öğrencilerin "gamma.app" gibi yapay zeka destekli sunum hazırlama uygulaması aracılığıyla hazırlanan sunularla hem teknolojiye dair becerilerini desteklemek hem de prompt yazma ya da istem mühendisliği olarak tanımlanan durumla ilgili gelişimleri desteklenmeye çalışılabilir. 2024 Nisan ayında yayımlaman yeni müfredat taslağında da "Sözlü sunum yapabilme" ve "Hazırlıklı konuşmalarını yapılandırabilme" öğrenim çıktılarında da öğrencinin konuşmaya dair plan yapma becerisi de vurgulanmıştır. Bu çalışmanın amacı, Şanlıurfa'da bir devlet okulunda öğrenim gören altıncı sınıf öğrencilerinin hazırlıklı konuşma becerilerinin geliştirilmesinde yenilikçi teknolojileri kullanma deneyimlerini ortaya çıkartmaktır. Bu bağlamda şu sorulara cevap aranacaktır: 1.Hazırlıklı konuşma öncesi öğrenciyi etkileyen olumlu ya da olumsuz unsurlar nelerdir? 2.Hazırlıklı konuşma esnasında belirlenen ölçütlere göre konuşma becerisi ne durumdadır? 3.Hazırlıklı konuşmada kullandığı yenilikçi teknoloji uygulamalarına dair deneyimleri ilgili görüşleri nedir? Araştırmada nitel araştırma yöntemlerinden doküman analizi, gözlem ve görüşme yöntemi kullanılacaktır. Sonrasında 10 öğrencinin hazırbulunuşluk durumları 2-3 dakikalık hazırlıklı konuşmaları video kaydına alınacaktır. Video kaydına konuşması neticesinde maksimum çeşitlilik örneklemine göre temel, orta ve üst seviyede birer kız ve erkek öğrenci seçilerek hazırlıklı konuşmalarını destekleyecek yenilikçi teknoloji uygulamalarıyla ilgili eğitim verilecektir.Bunun neticesinde etkinlik pilot uygulaması yapılacaktır. Konuşmalarını ne ölçüde gerçekleştirdikleri konuşma becerisi değerlendirme ölçeği kapsamında gözlemlenecektir. Bunu gerçekleştirirken mikro öğretim yöntemi kullanarak dönüt verilerek de öz değerlendirme yapmalarına olanak sağlanıp öğrenme deneyimlerinin zenginleştirilmesi hedeflenmiştir. Araştırma sonucuna göre; öğrencilerin kullandıkları yenilikçi teknoloji uygulamaları ve neden tercih ettikleri, nerede zorlandıklarına dair konuşma öncesi ve esnasındaki durumlarla alakalı konular da saptanmaya çalışılacaktır. Sonuç neticesine göre öğrencilerin bilgi ve becerilerine dair belirlemeler yapılarak konuşma düzeylerinin geliştirilmesine yönelik çalışmalar gerçekleştirilecektir.

Anahtar Sözcükler: Hazırlıklı konuşma öğretimi, yapay zeka, yenilikçi teknoloji uygulamaları

(285) TR Dizinde Yayınlanmış Öğrenme Analitikleriyle İlgili Çalışmalardaki Eğilimlerin İncelenmesi

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Öğrenme analitikleri öğrenmeyi ve öğrenmenin gerçekleştiği ortamı anlamak ve iyileştirmek amacıyla öğrenenlerle ilgili verilerin toplanması, analiz edilmesi, ölçülmesi ve raporlanmasını bütünsel ele alan bir araştırma alanıdır. Öğrenme analitikleri ile ilgili yapılan çalışmalar gün geçtikçe artmaktadır. Bu araştırmanın amacı, öğrenme analitikleri konusunu ele alan ve TR Dizin indekslenen dergilerde yayınlanmış çalışmalardaki eğilimlerin incelenmesidir. Bu amaçla TR Dizin veri tabanında 2014–2024 Nisan tarihleri arasında yayımlanan ve başlığında "öğrenme" ve "analitikleri" ifadelerini içeren çalışmalar araştırılmıştır ve 12 makale incelemeye dahil edilmiştir. Belirlenen makalelerin analizi için araştırmacılar tarafından hazırlanan "Makale İnceleme ve Sınıflama Formu" kullanılmıştır. Makalelerin yayınlanma yılı, türü, yöntemi, araştırma deseni, veri toplama araçları, veri analizi yöntemleri ve anahtar kelimeleri incelenmiştir. Yapılan incelemeler sonucu elde edilen veriler frekans ve yüzdeye dayalı bir şekilde tablo ve grafikler halinde sunulmuştur. Araştırma sonucunda TR Dizin'de öğrenme analitiği kullanılarak yayınlanan çalışmaların en çok 2022 yılında yayınlandığı, 2016-2018 tarihleri arasında TR Dizin indeksli dergilerde öğrenme analitikleri konusunda yayınlanan makalenin bulunmadığı görülmüştür. Bu çalışmaların türlerinin araştırma çalışmaları ve derleme çalışmaları olduğu görülmüştür. TR Dizin indeksli çalışmalara dair bilgi sahibi olunması sağlanmıştır.

Anahtar Sözcükler: öğrenme analitikleri, TR dizin makaleleri, eğilimler

(286) Üretken Yapay Zekanın K12 Öğrencilerinin İngilizce Yazma Becerilerini Geliştirme Potansiyeli

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Bu çalışmada, K12 düzeyindeki öğrencilerin İngilizce yazma yeteneklerinin geliştirilmesinde üretken yapay zeka teknolojilerinin kullanılabilirliği ve etkililiği incelenecektir. İngilizce öğreniminde karşılaşılan temel zorluklardan biri, öğrencilerin yazılı ifade becerilerini geliştirmektir. K12 eğitim düzeyinde, İngilizce yazma becerilerinin desteklenmesi, özellikle temel dil becerileri henüz gelişmekte olan 5. ve 6. sınıf öğrencileri için kritik öneme sahiptir. Araştırmamız, A1-A2 seviyesinde İngilizce bilgisine sahip öğrencilerle yürütülecek olup, hibrit yapıda tasarlanan İngilizce dersinde bir öğretim dönemi süresince kullanılacak yapay zeka destekli öğrenme araçlarının etkililiğini değerlendirmeyi amaçlamaktadır. Araştırma süreci, öğrencilere öğretim döneminin başında uygulanacak ön test ile başlayacaktır. Bu test, öğrencilerin dil bilgisi ve yazma becerilerindeki başlangıç düzeylerini belirlemek üzere tasarlanacaktır. Dersler, hibrit öğrenme modeli çerçevesinde, yapay zeka destekli interaktif yazma etkinlikleri ile zenginleştirilecektir. Bu etkinlikler, öğrencilerin dil kullanımını aktif bir şekilde geliştirmelerini ve pekiştirmelerini hedeflemektedir. Araştırma sonunda, öğrencilerin yapay zeka uygulamasından aldıkları geri bildirimlerin kalitesi, motivasyonlarındaki değişim, dil becerilerindeki ilerleme ve yazma etkinliklerine olan katılımları değerlendirilecektir. Sonuçlar, yapay zekanın K12 eğitiminde İngilizce yazma becerilerinin desteklenmesinde nasıl bir rol oynayabileceğini ve bu teknolojilerin öğretim pratiklerine entegrasyonunun potansiyel faydalarını ortaya koyacaktır. Böylece araştırmanın, açık uzaktan eğitim alanında çalışan tasarımcılara ve yöneticilere yapay zeka destekli öğretim araçlarının etkili kullanımına dair kapsamlı bir bakış açısı sunması ve yapay zeka uygulamalarının daha bilinçli ve etkili kullanımı için öneriler oluşturması bakımından alanyazına katkı sağlayacağı düşünülmektedir.

Anahtar Sözcükler: Açık ve Uzaktan Eğitim, Yapay Zeka, Dil Öğretimi, K12

(287) Trdizinde Yayınlanmış Robotik İle ilgili Çalışmalardaki Eğilimlerin İncelenmesi

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Bu araştırmanın amacı, robotik eğitimi üzerine son 10 yılda (2014-2024) yapılan çalışmalardaki eğilimlerin incelenmesidir. Bu amaç doğrultusunda TR DİZİN'de indekslenen dergilerde yayınlanan makaleler incelenmiştir. İnceleme ölçütü olarak "robotik" ve "eğitim" anahtar kelimeleri ile 2014-2024 yıl aralığı kullanılmıştır. Bu ölçütlere uygun 41 makale bulunmuş ve bu makalelerden 22 tanesi araştırma amacına uygun olduğu için incelemeye dahil edilmiştir. İnceleme "Makale inceleme ve Sınıflama Formu" kullanılarak makalelerin türü, yöntemi, veri toplama yöntemleri, veri analiz yöntemleri ve anahtar kelimeleri incelenmiştir. İncelemeden elde edilen veriler frekans ve yüzde olarak tablo ve grafiklerle sunulmuştur. İncelemeler sonucunda Tr DİZİN' de robotik kullanılarak yayınlanan çalışmalar yıllara göre en çok makale 2020 yılında olduğu görülmüştür. Yöntem olarak en çok Nicel araştırma yöntemlerinden yarı deneysel yöntemler kullanıldığı görülmüştür. İlgili konu hakkında Tr Dizin üzerinde değerlendirme çalışması yapılmadığı görülmüştür.

Anahtar Sözcükler: robotik, eğitim, trdizin,education, robotik,

(288) Açık ve Uzaktan Öğrenmede Yapay Zekâ Destekli Geribildirim Uygulamaları

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Açık ve uzaktan öğrenmenin etkili olabilmesini sağlayacak temel faktörlerden biri geribildirimdir. Geribildirim öğrenen ve öğreten arasındaki iletişimi de ifade eden bir etki-tepki örneği olarak düşünülebilir. Öğrenmenin beklendiği gibi gerçekleşmesi ve olası problemlerin gecikmeden giderilmesi için geribildirimlerin doğru zamanda ve doğru şekilde verilmesi önem taşımaktadır. Kitap, podcast, video gibi geleneksel uzaktan eğitim araçlarıyla verilen geribildirimler sınırlı ve gecikmeli olmaktadır. Yapay zekâ ile geleneksel yöntemlere göre hem daha hızlı hem de daha çeşitli geribildirim verebilmek mümkün hale gelmiştir. Bu sayede hem öğretimin bireyselleştirilmesi sağlanırken hem de öğrenenin doğru geribildirim alması sağlanabilir. Yeni nesil yapay zekâ uygulamalarından faydalanılarak yapılacak anlık geribildirim sistemleri öğrenenlerin hatalı veya eksik öğrendiği kısımları gecikme yaşamadan düzeltmesine olanak sağlar. Otomatik hale getirilen geribildirim sistemleri sayesinde öğretenlerin zaman kaybı en aza indirilerek derse ayırabilecekleri sürenin artması sağlanabilir. Bu çalışmanın genel amacı ilgili alanyazında açık ve uzaktan öğrenme alanında kullanılan yapay zekâ destekli geribildirim örneklerinin bir araya getirilerek uzaktan eğitimde geribildirim verilirken faydalanılabilecek yapay zekâ uygulamaları hakkında araştırmacılara, öğretenlere ve öğrenenlere yardımcı olmaktır. Bu amaç doğrultusunda 2020-2024 yılları arasında açık ve uzaktan öğrenmede yapay zekâ destekli geribildirim uygulamalarına odaklanan akademik çalışmalara yönelik Scopus ve Web of Science veri tabanları üzerinde sistematik bir alan yazın taraması gerçekleştirilmiştir. Bu taramada açık ve uzaktan öğrenmede geribildirim amacıyla yapay zekâ kullanımının mevcut durumu ortaya konularak, açık ve uzaktan öğrenmede yapay zekâ ile geribildirim vermenin uygulanabilirliği üzerine düşünceler sunulmuştur. Yapay zekâ destekli geribildirim uygulamalarının kullanılmasının etkili ve hızlı geribildirim sağlamada faydalı olacağı düşünülmektedir. İncelenen çalışmalarda yapay zekâ destekli geribildirim uygulamalarının çeşitlilik anlamında sınırlı olduğu görülmüştür. Geribildirim türlerinin çeşitliliği farklı şekilde öğrenen kişilere farklı şekillerde geribildirim sunmak için önemlidir. Kitlesel eğitim veren kurumlarda kullanılacak yapay zekâ destekli geribildirim uygulamalarında bu çeşitliliğin sağlanması büyük önem taşımaktadır.

Anahtar Sözcükler: açık ve uzaktan öğrenme, yapay zekâ, geribildirim, eğitimde yapay zekâ

(289) Hibrit Öğrenme Üzerine Yayınlanan Makalelerin Bibliyometrik Analizi

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Son yıllarda açık ve uzaktan öğrenme ve yüz yüze öğrenme ortamlarında bir takım teknolojik gelişmelerle birlikte yeni uygulamalar ortaya çıkmıştır. Hibrit öğrenme yaklaşımı da bu uygulamalardan birisidir. Bundan hareketle bu çalışmada, hibrit öğrenmeye yönelik yapılan makalelerin incelenmesi amaçlanmıştır. Bu çalışmanın verilerine Web of Science (WoS) veri tabanından ulaşılmıştır. WoS veri tabanında "hybrid learning" ve "education" anahtar kelimeleri ile tarama yapılmış ve tarama sonucunda 635 makale değerlendirmeye alınmıştır. Verilerin analizinde bibliyometrik analizden yararlanılmıştır. Bibliyometrik analiz VOSviewer programı ile yapılmış ve veriler görselleştirilmiştir. Araştırmanın ilk bulgularına göre; 2014 ve 2024 yılları arasında yapılan çalışmaların en çok 2022 yılında, en az ise 2004 ve 2005 yılında yayınlandığı belirlenmiştir. Bu bulgudan hareketle, en çok atıfın 2022 yılında yapılması hibrit öğrenmenin Covid 19 pandemisi ile yeniden gündeme geldiği sonucuna ulaşılabilir. Yine makaleler incelendiğinde, hibrit öğrenme ile ilgili en çok çalışma Amerika Birleşik Devletleri'nde, en az çalışma ise Meksika'da yapılmıştır. Diğer bir bulgu olan çalışmalardaki atıflar incelendiğinde, atıfların 2022 yılında en çok, 2004 yılında ise en az atıf yapıldığı belirlenmiştir. Makalelerde hibrit öğrenme, harmanlanmış öğrenme, yükseköğretim anahtar kelimelerinin daha sık kullanıldığı görülmüştür. Analiz sonucunda, hibrit öğrenme konusunda en çok makale yayınlayan ve atıf alan dergi "Education Sciences" ve en az makale yayınlayan ve atıf alan dergi ise "International Journal of Engineering Pedagogy" olduğu bulgusuna ulaşılmıştır. Bunun yanında, en çok atıf yapılan makaleler de belirlenmiştir. Sonuç olarak, hibrit öğrenme ile ilgili yapılan bu bibliyometrik analizin, hibrit öğrenme konusunda çalışma yapacak araştırmalara katkı sağlayacağı düşünülmektedir.

Anahtar Sözcükler: Hibrit öğrenme, hibrit eğitim, açık ve uzaktan öğrenme, yüz yüze öğrenme, bibliyometrik analiz

(290) YETAM-XR'da Üretilen Sanal ve Artırılmış Gerçeklik Uygulamaları

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Sanal gerçeklik ve artırılmış gerçeklik teknolojileri hem örgün öğretim hem de uzaktan eğitim süreçleri için önemli bir yere sahiptir. Yurtiçi ve yurtdışında bu alanlara yönelik yapılan çalışmalar hızla artmaktadır. Yapılan çalışmaların yanında bu alanlara yönelik üretim yapabilmek de önemli hale gelmiştir. İstanbul Üniversitesi – Cerrahpaşa Açık ve Uzaktan Eğitim ve Uygulama Araştırma Merkezi bünyesinde kurulan YETAM-XR (Yenilikçi XR Teknolojileri Araştırma ve Geliştirme Merkezi) çatısı altında eğitsel sanal gerçeklik ve artırılmış gerçeklik uygulamaları geliştirilmektedir. Uygulamaların geliştirilme süreçlerinde alan uzmanı akademisyenler ile sürekli iş birliği halinde olunurken, ilgili bölüm öğrencileri ile de düzenli olarak pilot uygulamalar yapılmaktadır. Geliştirme süreçlerinde Unity ve Unreal Engine gibi oyun motorları kullanılmaktadır. Geliştirme süreçlerinin sonunda ise uygulamalar ilgili bölümlerde ihtiyaç doğrultusunda kullanılmaktadır. YETAM-XR tarafından geliştirilen sanal gerçeklik uygulamalarından bazıları; sanal gerçeklik ile dalış eğitimi, sanal gerçeklik ile ilk yardım eğitimi, sanal gerçeklik ile fen eğitimi, sanal gerçeklik ile iş sağlığı ve güvenliği eğitimi, sanal sağlık ve kimya laboratuvarları şeklindedir. YETAM-XR tarafından geliştirilen artırılmış gerçeklik uygulamaların bazıları ise; artırılmış gerçeklik ile fen konularının öğretimi ve artırılmış gerçeklik üç boyutlu model kütüphanesidir. Bu uygulamaların kendi içlerinde farklı özellikleri ve çalışma mekanikleri mevcut olsa da temelde görev tabanlı, öğretimsel içerikleri adım adım öğreten bir yapıya sahiplerdir. Ayrıca uygulamalar kendi içlerinde değerlendirme sistemlerine de sahiptir. Bu değerlendirme sistemlerinden bazıları internet üzerine anlık olarak veri aktarabilecek ve toplanan verileri özet şeklinde alan uzmanlarına sunabilecek şekilde tasarlanmıştır.

Anahtar Sözcükler: Sanal gerçeklik, Artırılmış Gerçeklik, YETAM-XR, Uzaktan Eğitim

(291) Metaphorical Perceptions of Academicians and Prospective Teachers on Artificial Intelligence

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Recently, the term school has come to be defined as a place where students and teachers come together physically and virtually to participate in teaching and learning activities (Timms, 2016). If we pay attention to the emphasis on the concept of virtual here, it is possible to infer that artificial intelligence applications have started to be included in education (İşler & Kılıç, 2021). In addition to the fact that the integration of artificial intelligence applications into education is still a controversial issue, many predictions and thoughts are also emphasized. Some of them focus on which tasks of teachers can be replaced by artificial intelligence applications in the classroom. If we look at these developments, it can be predicted that teachers\academics who are behind the age in the face of the progress of artificial intelligence will not be able to protect their places. However, artificial intelligence can also be the biggest helpers of teachers/academics who can follow the steps of the age. Experts working in the field of education frequently benefit from technological advances in order to improve learning-teaching activities and increase the quality of education; studies are carried out on artificial intelligence in education, artificial intelligence in the measurement and evaluation process and foreign language teaching, historical development of artificial intelligence and its use in education. In the study, in which the phenomenological approach, one of the qualitative research methods, was adopted, the sample group consisted of a total of 55 participants, 25 of whom were academicians and 20 of whom were pre-service teachers, and academicians and pre-service teachers who were teaching in the same higher education institution in the Marmara Region based on the principle of convenient sampling from purposeful sampling methods. The participants' metaphorical perceptions of artificial intelligence were tried to be determined by analyzing the explanations they put forward in line with their knowledge, related examples and experiences about artificial intelligence. The data were collected with a semi-structured form prepared by the researchers within the scope of the TÜBİTAK 2209A project. The participants were asked the question "If you want to liken artificial intelligence to an entity, concept, situation, what would it be? Why?" and the collected data were analyzed by content analysis method, one of the qualitative research designs. First of all, it was examined whether the participants expressed the metaphors in a clear language, and the answers given by two participants who did not give any explanation about the metaphor or did not show logical consistency were excluded from the scope of the research. Accordingly, it was found that academicians likened artificial intelligence to 24 different concepts, while pre-service teachers likened it to 15 different concepts.

Anahtar Sözcükler: artificial intelligence, technology integration in education, teacher education, metaphor.

(292) Teacher Insights on Student Use of AI Tools for EFL: A Qualitative Study from Türkiye

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This qualitative study explores the perceptions of high-school English as a Foreign Language (EFL) teachers regarding the use of artificial intelligence (AI) tools by their students in three state schools in Türkiye. Sixteen EFL teachers participated in semi-structured interviews that included seven open-ended questions following a demographic survey. The data underwent thematic content analysis by two independent raters to ensure objectivity and reliability. The findings indicate a generally negative perception among teachers towards the impact of AI on student learning. A significant concern highlighted is the unconscious use of AI tools by students, which teachers believe could undermine genuine learning processes and critical thinking skills. Additionally, teachers expressed apprehensions about students' over-reliance on AI, suggesting it might lead to a decrease in traditional study habits and a lack of deep learning. Some educators also raised ethical issues, including the potential for AI to promote academic dishonesty. Despite these concerns, a minority of teachers recognized potential benefits of AI, such as personalized learning opportunities and enhanced engagement with language learning materials. However, they stressed the need for proper guidance and integration of AI within the curriculum to mitigate its negative effects. This study contributes to the emerging discourse on AI in education by highlighting the critical perspectives of frontline educators who are directly involved with the implications of technological advancements in the classroom. The findings underscore the necessity for educational policies that address teacher and student needs in the AI-integrated learning environment, suggesting a balanced approach to harness the benefits of technology while minimizing its potential drawbacks.

Keywords: Artificial Intelligence in Education, EFL Teachers' Perceptions, Educational Technology

(294) EBA Çalışmalar Bölümü Kullanım Durumunun Öğrencilerin Sınav Başarısına Etkisi

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Öğrenme Yönetim Sistemleri sunduğu dijital imkânlarla eğitimde tamamlayıcı ve kolaylaştırıcı bir öğrenme ortamı sunmaktadır. Eğitim Bilişim Ağı (EBA); içerisinde yer alan ders içerikleri, sınavlar, öğrenme senaryoları ve kütüphane içerikleri ile milyonlarca öğrenciye ve binlerce öğretmene hizmet vermektedir. EBA içerisinde yer alan "Dijital Çalışmalar" ve "Sözlü ve Yazılı Çalışmalar" bölümleri ile öğrencilerle ders kazanımlarına yönelik çeşitli içerikler paylaşılabilmektedir. Ayrıca öğrencilerin sisteme dosya yükleme özelliği ile sözlü ve proje görevleri notu verme işlemleri yapılabilmektedir. Ancak bu özelliklerine rağmen EBA'da yer alan ilgili bölümlerin kullanım durumlarını inceleyen çalışmalar sınırlıdır. Bu çalışmanın amacı, sözlü/yazılı çalışmalar bölümü ile proje teslimi yapan öğrencilerin Bilişim Teknolojileri ve Yazılım dersi sınav başarısını çeşitli değişkenler açısından incelemektir. Çalışmanın yöntemi, nicel araştırma yöntemlerinden tarama modelinde desenlenmiştir. Çalışmanın katılımcıları, bir devlet okulunun 5. sınıfında öğrenim 39 kız ve 43 erkek öğrenci olmak üzere toplam 82 öğrencidir. Çalışmanın verileri öğrencilerin EBA istatistikleri ve sınav notlarıdır. Verilerin analizinde betimsel istatistikler, bağımsız gruplar t-testi ve korelasyon analizleri kullanılmıştır. Öğrencilere "EBA Dijital Çalışmalar" bölümü üzerinden ders kazanımlarını içeren sunular ve çalışmalar gönderilmiş, "EBA Sözlü ve Yazılı Çalışmalar" bölümü üzerinden de proje ödevi olarak hazırlanacak dört farklı proje konu başlığı belirlenmiştir. Öğrenciler seçtiği proje başlığında hazırladıkları sunu, afiş, pano, slogan, hikaye veya şiir gibi türlerden birini EBA üzerinden dosya yükleyerek veya fiziksel olarak teslim etmiştir. Yapılan analizler sonucunda cinsiyete göre sınav puanları arasında anlamlı farklılık bulunmazken proje ödevini EBA'ya dosya yükleme durumuna göre öğrencilerin sınav notları arasında anlamlı farklılık bulunmuştur. Yapılan korelasyon analizinde ise öğrencilerin dijital çalışmaları takip etme sayısı ile sınav notları arasında orta düzeyde pozitif yönlü ilişki bulunmuştur. Çalışma bulgularına dayanarak EBA'da yer alan çalışmalar bölümünün aktif kullanımının öğrenci başarısı üzerinde etkili olduğu sonucunda ulaşılmıştır. Çalışmalar bölümünü inceleyen uzun süreli boylamsal çalışmaların ve öğrenci görüşlerini derinlemesine inceleyecek nitel çalışmaların yapılması önerilmektedir.

Anahtar Sözcükler: Eğitim Bilişim Ağı (EBA), Dijital Çalışmalar, Sözlü ve Yazılı Çalışmalar, Dijital İçerik, Öğrenme Yönetim Sistemi, Sınav Başarısı

(295) Otizm Spektrum Bozukluğunda Yapay Zekâ Kullanımı: Sistematik Alanyazın Taraması

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Yapay zeka teknolojileri, özellikle son yıllarda erişilebilir hale gelerek eğitimin çeşitli alanlarında kullanılmaya başlanmıştır. Bu alanlardan biri de özel eğitimdir, özellikle otizm spektrum bozukluğu (OSB) üzerine yapılan çalışmalar önem kazanmıştır. Bu bağlamda, özel eğitimde OSB üzerine yapılan çalışmalara odaklanan bir sistematik alanyazın taraması gerçekleştirilmiş ve 2020-2024 yılları arasında yayımlanan 52 çalışma incelenmiştir. İlgili çalışmalar incelendiğinde, özellikle erken çocukluk döneminde OSB tanısı koyma ve sınıflandırmaya yönelik önemli araştırmaların olduğu görülmektedir. Makine öğrenimi algoritmaları, OSB'nin tanımlanması ve sınıflandırılması için yaygın bir şekilde kullanılmaktadır. Ancak incelenen çalışmalarda, yapay zeka kullanılarak OSB olan çocuklara beceri öğretimi konusunun oldukça sınırlı olduğu belirlenmiştir. Erken tanının önemi vurgulanmış ve bu doğrultuda yapay zeka teknolojilerinin OSB tanısında erken müdahale ve tedavi için potansiyel bir araç olarak kullanımı üzerinde durulmuştur. Bu bağlamda, çalışmada öneriler geliştirilmiş ve ileri çalışmalar için öneriler sunulmuştur.

Anahtar Sözcükler: otizm spektrum bozukluğu, OSB, yapay zeka, yardımcı teknolojiler, eğitim teknolojileri

(296) Ortaokul Öğretmenlerinin Teknostres Düzeylerinin İncelenmesi *

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Teknolojinin hızlı bir şekilde gelişimi ve eğitimde de yaygın kullanılması, öğretmenlerin teknolojiyle adaptasyon sağlama sürecinde çeşitli zorluklar yaşamasına sebep olmaktadır. Ortaya çıkan bu durum teknostres olarak adlandırılmaktadır. Bu araştırmanın amacı, öğretmenlerin teknostres düzeylerini belirlemek ve teknostres düzeylerini çeşitli değişkenler açısından incelemektir. Tarama modeli kullanılan araştırmaya 125 ortaokul öğretmeni katılmıştır. Araştırmanın veri toplama araçları demografik bilgi formu ve "Öğretmenlerin Teknostres Düzeylerini Belirleme Ölçeği"dir. Araştırmanın bulgularına göre, ortaokul öğretmenlerin teknostres düzeylerinin orta düzeyde olduğu görülmüştür. Ortaokul öğretmenlerinin teknostres düzeyleri cinsiyete, mesleki kıdeme, branşa, öğrenim durumuna ve sosyal medya kullanım sıklığına göre farklılık göstermemiştir. Temel/orta düzeyde bilgisayar kullanan öğretmenlerin teknostres düzeyleri, ileri/uzman düzeyde bilgisayar kullanan öğretmenlerden anlamlı derecede daha yüksek bulunmuştur. Etkileşimli tahtayı derslerinde "her zaman" kullanan öğretmenlerin teknostres düzeylerinin, "hiç/nadiren" kullanan öğretmenlerden daha düşük olduğu bulgusuna erişilmiştir. Ayrıca etkileşimli tahtayı derslerinde "her zaman" kullanan öğretmenlerin teknostres düzeylerinin, "sıklıkla" kullananlardan daha düşük olduğu belirlenmiştir. İnterneti "günde 3-4 saat ve üzeri" kullanan öğretmenlerin teknostres düzeylerinin, "günde 1 saatten az" kullananlardan anlamlı derecede daha düşük olduğu bulunmuştur. * Bu çalışma birinci yazarın ikinci yazar danışmanlığındaki "Ortaokul Öğretmenlerinin Teknostres Düzeylerini Etkileyen Faktörler ve Bu Faktörlerle Baş Etmede Çözüm Önerileri" başlıklı devam etmekte olan yüksek lisans tez çalışmasından üretilmiştir.

Anahtar Sözcükler: Teknostres, ortaokul öğretmenleri, eğitimde teknoloji kullanımı

(297) Engagement of Technology-Powered Learners in Spirituality through Mystic Literature in the Age of AI

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In today's frenzied world of rapid material and technological growth, the temporal and spiritual existence of man and his needs cannot be disregarded. Although the life of human (the spiritual being) emerged from matter, their talents serve as a campaign to unrevealed the puzzles of this physical universe and illuminate the meaning of existence. While the spiritual being is at the pinnacle of their worldly growth at the moment, the spiritual development is lagging far than the desired. In the holistic development of personality, the importance and fulfilment of material existence and the emotional, intellectual, and spiritual needs of humans cannot be ignored. As most of the current research is focusing on the technology led educational advancements but extensive research activities should also be carried out in respect of long-term effects of technological advancement on students' intrinsic personalities, that will contribute to the students' ultimate success or failure in life. This qualitative study focuses on how new technical advancements and contemporary needs might support students' holistic development from the spiritual paradigm through engaging them in study and learning mystic literature. The expecting findings of the research may indicate that mystical literature ought to go digital, and additional applications based on mystical teachings and their powerful lessons ought to be created to enhance online and offline learning in the context of spirituality that is definitely in danger with the advancement of AI in the times to come. Authors: 1. Prof. Dr. Navid Jamil Malik, Professor of Education, Dean of Faculty of Humanities and Social Sciences, University of Sialkot, Sialkot, Pakistan. 2. Adeela Hussain, Principal, Ayesha Siddiqa School, Sialkot, Graduate of Department of Education, Faculty of Humanities and Social Sciences, University of Sialkot (USKT), Sialkot, Pakistan.

Keywords: Technology, Holistic, Spirituality, Mystical Literature

(298) A Study of Teacher Leadership in Metaverse for Educational Sustainability

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The Metaverse represents an immersive virtual environment in three dimensions, where avatars exist beyond the constraints of the physical world. The emergence of the COVID-19 pandemic has sparked a major disruption in the field of education, leading to a stronger emphasis on accelerating the shift to digitization of educational activities, leading to online learning. Despite the recent implementation of the metaverse systems, there has been lack of in-depth evaluation regarding its impact in the field of education. Educational sustainability involves creating learning environments that adapt to changes, and remain accessible and effective for all students. In the context of the Metaverse, the idea of educational sustainability involves using immersive virtual environments to establish learning spaces that demonstrate strength, inclusivity, and flexibility to meet the increasing requirements of future educational environments. It emphasizes the importance of creating learning environments that are environmentally responsible, economically feasible, and socially equitable. The current study explores the emergent role of teacher leadership in Metaverse and its implications for educational sustainability. By employing a comprehensive literature review, this study synthesizes existing theoretical and empirical studies related to digital environments of education, leadership in educational settings, and the sustainability of educational practices in virtual domains, such as Metaverse. The analysis identifies the key characteristics of teacher leadership that are essential in directing the unique challenges and opportunities presented by Metaverse, such as digital literacy, pedagogical innovation, and community engagement. The findings highlight the potential of teacher leaders to foster sustainable educational ecosystems by utilizing Metaverse's immersive and interactive capabilities. The study also discusses constraints to effective teacher leadership, including technological accessibility, professional development, and policy constraints. This research concludes to a deeper understanding of how teacher leadership can evolve in response to advancing digital education technologies and suggests strategic directions for future educational practices and research within virtual learning environments that will come in future with more involvement of Artificial Intelligence (AI) in education. Authors: 1. Farva Sheikh, MS Scholar, Department of Education, Faculty of Humanities and Social Sciences, University of Sialkot (USKT), Sialkot, Pakistan. 2. Prof. Dr. Navid Jamil Malik, Professor of Education, Dean of Faculty of Humanities and Social Sciences, University of Sialkot, Sialkot, Pakistan.

Keywords: Teacher Leadership, Metaverse, Educational Sustainability, Virtual Learning, Artificial Intelligence

(299) Developing Multiple Intelligences of Gen Z Students in the Age of Artificial Intelligence

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The ability to recognize, understand, control, and appropriately communicate one's own emotions as well as to positively perceive and respond to the emotions of others is known as Emotional Intelligence (EI). The ability to connect with something more than oneself and to investigate and comprehend life's ultimate meaning and purpose is referred to as Spiritual Intelligence (SI). Gen Z, or Generation Z, is the group of people who were born between the middle of the 1990s and the beginning of the 2010s. They grew up at a time when technology and the internet were widely used, and they have proven to be skilled at using digital tools for a variety of tasks. Artificial intelligence (AI) is the replication of human intelligence in machines, enabling them to do activities such as learning, problem-solving, comprehending natural language, and pattern recognition that typically require human intelligence. The environment in which Generation Z is brought up has been significantly transformed by the rapid advancement of artificial intelligence and other technologies, presenting them with distinct opportunities and challenges that necessitate the development of emotional and spiritual intelligence for their empowerment in the midst of technological disruptions and societal traits. Using the concepts of SI and EI, this study aims to explore the complex relationship between spiritual and emotional intelligence in Generation Z students as they navigate an increasingly AI-driven future. The study also offers practical strategies to enhance these vital components of human well-being. In order to contextualize the research into the larger educational discussion on the development of emotional and spiritual intelligence, the traits of Generation Z, and the effects of artificial intelligence on human welfare, a comprehensive review of the literature will be conducted. Notable works in the fields of psychology, education, technology, and sociology are be consulted with the recent studies on the fusion of emotional and spiritual intelligence in the digital age. The expected outcome of the research is the realization of engaging Gen Z students towards Artificial Emotional Intelligence and meditations as real spiritual practices to enhance their Spiritual Intelligence while they are engaged in their online learning activities in the age of AI. Authors: 1. Farwa Naz, MS Scholar, Department of Education, Faculty of Humanities and Social Sciences, University of Sialkot (USKT), Sialkot, Pakistan, farwa3497@gmail.com 2. Prof. Dr. Navid Jamil Malik, Professor of Education, Dean of Faculty of Humanities and Social Sciences, University of Sialkot, Sialkot, Pakistan.

Keywords: Emotional Intelligence, Spiritual Intelligence, Gen Z Students, Artificial Intelligence, AI-driven Future, Human well-being, Digital Age.

(300) The Effects of Calligraphy on Learner's Emotional Intelligence - A Case Study of Online and Offline Learning

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Emotional intelligence is essential for personal well-being and interpersonal relationships of learners. In present paradigm, calligraphy has been conceived to enhance emotional regulation and empathy. However, the extent of its impact on learner's emotional intelligence remains uncertain. This study aims to examine the effects of calligraphy practices on the emotional intelligence in offline and online learning. The objectives of this study were to find out the effects of calligraphy practices on emotional intelligence at secondary level, to identify the components of emotional intelligence influenced by calligraphy practices. Mixed method design was used for this study. Sample was selected purposively from online and offline calligraphy learning communities. Sample size was 35 online learners and 35 offline learners. The researcher used self-developed questionnaire and semi structured interview to meet his objectives. The identified factors in the questionnaire were self-awareness, self-management, motivation, empathy and social skills. Quantitative data was analyzed using statistical techniques mean, percentage, frequency, standard deviation and t test. The thematic analysis was used to interpret the semi-structured interviews. The study found that calligraphy practices have significant effects on students' emotional intelligence. It was identified that self-awareness, self-regulation, motivation, empathy and social skills are major components of emotional intelligence. The students also perceived these components are influenced by their calligraphy practices. The study found that offline learners demonstrate a more pronounced increase in emotional intelligence as compared to online learners. The study recommends that separate calligraphy classes may offer in the educational institutions for improving learners' emotional intelligence. Special trainings may provide to teachers to improve their skills to handle calligraphy classes. Authors: 1. Touqeer Mehmood, MS Scholar, Department of Education, Faculty of Humanities and Social Sciences, University of Sialkot (USKT), Sialkot, Pakistan. 2. Prof. Dr. Navid Jamil Malik, Professor of Education, Dean of Faculty of Humanities and Social Sciences, University of Sialkot, Sialkot, Pakistan.

Keywords: Calligraphy, Emotional Intelligence, Online Learning

(301) Türkçe Öğretmenliği Lisans Programlarında Teknoloji Entegrasyonunun Ulusal ve Uluslararası Yeterlilikler Çerçevesinde İncelenmesi: 21. yy Öğretmen Profili

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Yirmi birinci yüzyılın getirdiği yenilikler; eğitim alanında teknoloji entegrasyonu olarak adlandırılan ve teknolojinin yöntem, ortam ve sistem gibi çeşitli boyutlarda etkin kullanılmasını öngören bir kavramın önem kazanmasını sağlamıştır. Bu entegrasyonun öğretmen yetiştirme programlarında etkili şekilde gerçekleştirilebilmesinin ön koşullarından biri, söz konusu kavramın Türkiye Yükseköğretim Yeterlilikler Çerçevesi (TYYÇ) ile ilişkili olarak ele alınmasıdır. Öğrenci ve öğretmen adaylarından beklenen bilgi, beceri ve yetkinliklerin tanımlandığı bu çerçeve; Türkçe öğretmenliği lisans programlarındaki teknoloji temelli dönüşüm açısından da kritik öneme sahiptir. Bu kabulden hareketle çalışma; Türkçe öğretmenliği lisans programlarında teknoloji entegrasyonunun, TYYÇ ve uluslararası standartlar çerçevesinde 21. yüzyıl öğretmen profili açısından değerlendirilmesini amaçlamaktadır. Sanal gerçeklik, artırılmış gerçeklik ve metaverse gibi yenilikçi teknolojilere odaklanan bu değerlendirme, bu teknolojilerin öğretim programlarına farklı düzeylerde entegrasyonunun Türkçe öğretmeni adaylarının bilgi, beceri ve yetkinlikleri üzerindeki olası rolünü incelemektedir. Bu kapsamda TYYÇ 6. düzeyde tanımlanan yeterliliklerin ve bunlarla ilişki olarak ele alınan Türkçe öğretmenliği program çıktılarının geliştirilmesinde söz konusu teknolojilerin oynayacağı rolün alan yazında yer alan çalışmalardan elde edilen kanıt temelli verilerle de desteklenmesi amaçlamaktadır. Türkçe Öğretmenliği lisans programlarında güncel teknoloji kullanımını teşvik eden, öğretmen adaylarının çeşitli beceri ve yetkinliklerini geliştirmelerine katkı sağlayacak etkili entegrasyon çalışmalarına ihtiyaç duyulması çalışmanın en önemli gerekçesini oluşturmaktadır. Özellikle sanal gerçeklik, artırılmış gerçeklik ve Metaverse gibi yenilikçi teknolojilerin Türkçe öğretmenliğinin program çıktıları ile bütünleştirilmesinin ve ulusal/uluslararası yeterlilik çerçeveleri ile uyumlu bir şekilde ele alınmasının Türkçe öğretmeni adaylarının çok yönlü gelişimleri açısından önemli bir işleve sahip olacağı düşünülmektedir.

Anahtar Sözcükler: Türkçe öğretmenliği, teknoloji entegrasyonu, Türkiye Yeterlilikler Çerçevesi, 21. yüzyıl becerileri

(302) Fostering New Forms of Learning For The 21st Century to Bridging The Digital Divide

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The UN suggests that renewed efforts are required to improve equity, access, and quality of learning. This suggests that governments, societies, and Higher Education institutions (HEIs) need to reassess their approaches in terms of education if they are to meet these goals. The United Nations Human Rights Declaration (Article 26) states that all people have the right to free education. Countries like the United States have started the #GoOpen Initiative, which is committed to supporting educators as they adopt high-quality, openly licensed educational resources in their classrooms. With the rapid growth of the Web, the growth of Open Educational Resources (OER) has significantly been bolstered. However, although African universities have started utilising OER resources and, the continent continues to lag behind much of the rest of the world. HEIs today no doubt require a paradigm shift in the way they engage with students and in providing new forms of learning to many who students still face the challenges today arising from the digital divide. This paper presents a systematic literature review that explores trends, in this emerging area. The findings of this study highlight the need for more collaboration between governments, policy change and the impact of the digital divide in rural communities. The findings of this study also highlight the need for a more socially just pedagogy that facilitates difficult conversations about race, access, and inequality, so that educators can enhance the adoption of OER resources in classrooms and promote more inclusive education.

Anahtar Sözcükler: Innovation, OER, social justice, digital divide, inclusive education

(303) A Study of Trends in Online Learning and Learners' Behavior in using AI-Powered Chatbot

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In the contemporary era, education landscape is regularly evolving. The intersection of online learning and Artificial Intelligence (AI) offers unprecedented opportunities to revolutionize the knowledge acquisition and dissemination. The leading technological revolutions are AI-powered chatbots, which have gained a great deal of attention as virtual assistants capable of providing personalized support to learners in educational settings. This study aims at exploring the trends in online learning and learners' behavior regarding the utilization of AI-powered chatbots. Among the available chatbots, the researcher selected ChatGPT for this study. The research objectives were to explore the trends of using AI- powered chatbot in online learning, to investigate the effects of using chatbot on students' behavior, to identify the threats associated with the use of AI powered chatbot in online learning. Mixed research design was used for the study to explore its exploratory nature by analyzing quantitative and qualitative data. Sample of the study was collected from University of Sialkot through purposive sampling technique. Sample size of the study was 370 students for quantitative part of study, whereas 1 book on ChatGPT and 10 related articles were selected as the sample for qualitative part of study. Researcher developed questionnaire for achieving his objectives. The questionnaire was comprised of 40 statements with the use of five-point Likert scale. The collected data sets were exported to SPSS version 25 for statistical analysis. Statistics of frequency, percentage, mean score, standard deviation and the t-test were used to achieve the objectives of the study. Manual and computational content analysis (NVivo 14) were used for qualitative part to identify the codes and themes of the selected book and articles. The study found that personalized assistance, instant feedback, virtual support, 24/7 accessibility, engagement, time saving, enrich source of information, proactiveness, planning and motivation are emerging trends of using chatbot in online learning. The study investigated that chatbot has high level of effects on students' behavior. The study identified that inaccurate information, academic integrity issue, plagiarism, over reliance, potential misuse, knowledge manipulation and decline in high order cognitive skills are the major threats that are associated with the use of chatbot. The study recommends that universities may develop plans for managing threats of using chatbots in their learning activities. It is also recommended that universities may provide training to their stockholders about use of chatbots, so that they may meet the challenges existing in such domains effectively. Authors: Umar Latif, MS Scholar, Department of Education, Faculty of Humanities and Social Sciences, University of Sialkot (USKT), Pakistan. 2. Prof. Dr. Navid Jamil Malik, Dean of Faculty of Humanities and Social Sciences, University of Sialkot, Pakistan.

Keywords: Calligraphy, Emotional Intelligence, Online Learning

(304) Tekno İyimserlik ve Üretken Yapay Zeka Bağlamında Eğiticinin Eğitimi

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Teknoloji günlük hayatın vazgeçilmez bir parçası olmuş, günlük iş yapışlarımızı kolaylaştırmış, hızlandırmış ve bireylerin kendilerine daha çok vakit ayırabilmesini sağlamıştır. Teknoloji söz konusu olduğunda bu ve benzeri güzellemelerle sıklıkla karşılaşırız. Eğitim açısından baktığımızda da durum pek farklı değildir. Teknoloji eğitimde fırsat eşitliğini sağlamaktadır, sınıflarda teknoloji kullanımı öğrencilerin derse olan motivasyonlarını artırmaktadır ve daha niceleri… Bu betimsel çalışmada amaç, madalyonun diğer yüzüne çevirmek ve teknolojik iyimserlik kavramını, üretken yapay zeka bağlamında ele alarak eğitimcinin eğitiminin önemini ortaya koymaktır. Tekno-iyimserlik; yeni medya araçlarının eğitimi daha kaliteli ve etkili kılacağına inanarak, tüm bu yeni araçları coşku ile karşılayan bir karakteristik olarak karşımıza çıkmaktadır. Teknolojide bireylerin "kendi niş alanlarını" bularak, başarılı olmamanın neredeyse olanaksız olduğu vurgusu birçok insanı tekno-iyimserlik tarafına çekmektedir. Teknolojide yaşanan gelişmeler, sürekli yeni araçların eğitim bağlamında ele alınmasını kaçınılmaz kılmaktadır. Son dönemde "üretken yapay zeka"nın bu araçlar içerisinde başı çektiğini söylemek yanlış olmayacaktır. Özellikle uzaktan eğitim, dezavantajlı öğrenciler, yetişkin eğitimi, vb. alanlar söz konusu olduğunda teknolojinin sunduğu olanakların yadsınamaz faydası ortadadır. Ancak bunun yanında, "üretken yapay zeka" açısından tekno-iyimserliğin daha gerçekçi bir bakış açısı ile ele alınması gerektiğine inanılmaktadır. "Üretken yapay zeka" araçları şimdiye kadar karşılaşılan tüm araçlardan farklı bir şekilde ele alınmalıdır. Bu araçları kullanırken; algoritmik ön yargıların, veri gizliliğinin, otomatik karar verme süreçlerinin, etik ihlallerin vb. birçok durumun söz konusu olabildiği bu araçların eğitim öğretim ortamında kullanımında, eğitimcilerin gerekli donanım ve becerilere sahip olması gerektiğine inanılmaktadır. Burada söz konusu beceriler dijital okur-yazarlık becerileri, yapay zeka okur-yazarlık becerileri ve bu araçlarının verimli kullanımı sırasında gerekli olan kritik düşünme, çeviklik, problem çözme, bilgiyi analiz etme vb. 21. yy hayatta kalma becerileri olarak karşımıza çıkmaktadır.

Anahtar Sözcükler: Tekno İyimserlik, Üretken Yapay Zeka, Eğiticinin Eğitimi

(305) Politics of accessibility: supporting blind learners in open and distance education: The case of Anadolu University Open Education System

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In today's world, the delivery of education has become increasingly digitalized. Not only open universities, but also traditional universities are increasingly opening distance learning programs and delivering at least some of their courses through e-learning methods. Therefore, in addition to access to the internet and a computer, personalized learning environments have become increasingly important for students to continue and complete their education. This is even more important for students with special needs and students who use assistive technologies. The aim of this study is to find out the characteristics and components of an open and distance learning environment for the blind students enrolled at Anadolu University Open education programs. There are more than 22.000 disabled students in the distance education system of Anadolu University. Out of these 22.000 disabled students, more than 5.000 are visually impaired. The study will discuss the issue in dept and suggest future research directions.

Keywords: Politics of accessibility, support services, open and distance learning, blind learners, assistive technologies

(306) Matematiksel Mantık Bağlaçlarının Işık Renkleri (RGB) ile Modellenmesi Yoluyla Ders içi Etkinlik Materyali Tasarımı

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Bu araştırmanın hedefi matematiksel bağlaçların işlevlerini renkler yoluyla açıklayan bir matematiksel model ve bu modele dayalı bir dijital ve dinamik öğretim materyali geliştirmektir. Bu bağlamda geliştirilecek model için hem bir adet dijital deney düzeneği hem de bir adet dijital model hesap makinesi tasarlama yoluyla araştırma ve geliştirme boyutu ele alınmıştır. Ayrıca etkinliğin değerlendirilmesi için de yapay zeka dil modeli olan "Gemini" yazılımı yardımı ile bir değerlendirme rubriği de hazırlanmıştır. Dijital deney düzeneği dinamik matematik yazılımlarından GeoGebra dinamik matematik yazılımı kullanılmıştır ve dijital hesap makinesi için de Microsoft Excel programı kullanılmıştır. Araştırmada nitel araştırma yöntemlerinden olgu bilim (fenomenoloji) deseni kullanılmıştır. Model geliştirilirken p olarak tanımlanan önerme kırmızı ışık ile, q olarak tanımlanan önerme yeşil ışık ile modellenmiş ve bağlacın kendisini ifade eden perdeye bu ışık tutulunca beyaz dışında bir renk oluşuyorsa sonucun 1, oluşmuyorsa sonucun 0 olduğu sanal ortamda ışıklar birer daire olacak şekilde bir düzenek geliştirilmiştir. Örneğin "ve" bağlacı için beyaz bir perde oluşturulmuştur ve sadece iki önermenin de 1 olduğu (hem yeşil hem de kırmızı dairenin kullanıldığı) durumda sarı ortaya çıkar yani sonuç 1'e eşit olmuştur. Bu şekilde tüm durumlar da hazırlanan dinamik Excel tablosunda kısaca gösterilmiştir. Çalışmanın sonunda eğitimciler, eğitim programı yapıcılar ve araştırmacılar için öneriler yer almaktadır.

Anahtar Sözcükler: STEAM, Matematiksel Mantık, Işık Renkleri (RGB), Matematiksel Model

(307) Review of Microlearning Practices in Online Learning

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It's known that mobile smartphones are now a part of our lives. As practice increases, user behavior has changed in all fields with the impact of information and communication technology improved especially. GSM operators, smartphones, and web-based applications coordinate and support each other because of the increasing access to internet connection. In this context, it can be considered that socioeconomic, and cultural information data in production, trade, and education, which somehow harmonized. Particularly, whereas distance education developed as a technological post-pandemic, online learning has been impacted much more. That's why, people usually started to use web-based online learning apps. They are currently still carrying on use and love being interactive. As is this interactivity case can be simulated to peer-learning. Looking at some research, it has been found that users prefer to learn in a short time will reach info. It is known that they often follow and look at each other's posts to learn something on social media applications like Instagram, TikTok, YouTube, etc. Thus, It can be discussed to present an alternative way of online learning and to have microlearning technology with gamification using harmonized interactive systems to deliver in the online learning process. In this paper, microlearning has been defined, and open to evaluation for relevance as an educational approach. Microlearning is an alternative educational approach that delivers, small, pieces of content to learners, typically through digital platforms like mobile apps, websites, or learning management systems. This approach provides learners with concise, focused information that can be easily learned in a short time and self-paced, usually ranging from a few minutes to around 15-20 minutes. The purpose of this paper is to point to the importance of microlearning and its apps. In microlearning, It has been researched how to create a course design, content, and gamification implements with AI support or single. Within the findings discussed will be given a result and suggestion. As a method, this paper focuses on the use of microlearning apps in the scope of online learning. The study, related to documents and applications in literature and open resources within, had been trying to look at the samples of microlearning LMS. In the context of open and distance education, It has been tried to find microlearning applications. The findings of the study will be discussed under the titles of microlearning, and its technology used in web-based. In addition, the originality of the study had tried to pay attention. Technological tools used in microlearning are briefly explained and suggestions are made regarding the scope of microlearning in online learning.

Keywords: Distance Education, Online Learning, Microlearning.

(308) Reality or Perception? Evaluating Technology Readiness Level in the Attitudes of Young Adults Towards Technology Usage

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Globalisation is one of the main changes in the environment that surrounds us, which has impacted all countries, and almost everyone is experiencing it. This development seriously affects the economic environment of the country and many other factors, such as technological and social ones. All these factors have accelerated the process of digital transformation, making data an important strategic asset. Based on technology, new products and services were created, as well as other services that have been improved in terms of convenience, efficiency, and flexibility, trying to standardise services through the facilitation that the technology brings. It is a fact that the range of services offered through the developed technology has increased, but this does not automatically increase their use. People's attitudes towards change, the level of information they have, and the tendency to use technological innovations are all different. At the same time, companies also try to adapt to market segments by understanding their behaviour and their willingness to use technology. Numerous global companies are prioritising the use of new technologies to enhance productivity and efficiency in our everyday lives. While implementing these technologies does not guarantee their use and faces several obstacles, it is critical to understand and assess individuals' readiness to embrace new technologies. The main objective of this study is to examine the correlation between the dimensions of technology readiness and the level of acceptance among youth in the Vlora region. We selected the target group because this life period often marks notable transformations and growth, such as completing education, joining the job market, forming personal relationships, and gaining independence. The used questionnaire contains several sections, including the technology readiness dimensions (optimism, innovativeness, discomfort, and insecurity) and items for the assessment of their effect on attitudes towards using and adopting self-service technologies. The survey is conducted in Vlora, where it operates one of the largest public universities in the south of Albania. We designed the questionnaire as both a paper and an online survey to reach a large number of young people who are attracted to using the Internet, in accordance with the purpose of the study. For collecting data through questionnaires, respondents use a Likert scale from 1 to 5 to provide a wide range of responses to the questionnaire options. We performed analyses using descriptive statistics as well as empirical methods to evaluate the impact of each technology readiness dimension. This study presents a range of findings and recommendations regarding the relationship between technological readiness and its significant influence on the attitudes of young individuals towards the adoption of new technology.

Keywords: Technology readiness index, youth, self-service technology, innovation resistance

(309) Uzaktan Eğitimde Dijital Uçuruma Yönelik Sistematik Bir Alanyazın Taraması

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Günümüzde bilgi ve iletişime yönelik geliştirilen araçların kullanımı her geçen gün artış göstermektedir. Fakat insanlık bu teknolojilerden eşit bir şekilde faydalanamamaktadır. Bu farklılığın kaynağının ülke, konum, sektör ve bireysel kaynaklı olabildiği ifade edilmektedir (Hüsnüoğlu, 2016). Bilişim teknolojilerinden kaynaklı meydana gelen bu farklılık dijital uçurum olarak tanımlanmaktadır. Covid-19 pandemisinde öğretmen ve öğrenciler bilgi ve iletişim teknolojileri aracılığıyla öğrenme ve öğretme sürecine dahil olmuşlardır (Cifuentes, 2020). Fakat bu dönem, öğrenenlerin sahip oldukları sosyo-ekonomik eşitsizliklerin ötesinde derinlerde bulunan dijital uçurumun gözler önüne çıkmasını sağlamıştır (Mesa Rave ve Hoechsmann, 2023). Dijital uçurumun bireyler ve toplum üzerindeki negatif etkilerinin yanı sıra sürdürülebilir kalkınma bağlamında sahip olduğu önemli olumsuzlukların olduğu ifade edilmektedir. Covid-19 pandemisi döneminde birçok ülkenin dijital uçuruma yönelik gerçekleştirdiği farklı eylem ve faaliyetler olduğu görülmektedir. Hem Covid-19 hem de sonrasındaki dönemde dijital uçuruma yönelik tartışmalar alanyazındaki birçok raporda vurgulanmaktadır (EDUCAUSE Horizon Report, 2021). Bu doğrultuda bilgi ve iletişim teknolojilerinin sıklıkla kullanıldığı uzaktan eğitim ortamlarındaki dijital uçuruma yönelik tartışmaların incelenmesinin önemli olduğu ifade edilebilir. Uzaktan eğitim çalışmalarındaki dijital uçuruma yönelik tartışmaların ve bulguların değerlendirilmesi bu konuda gerçekleştirilecek çalışmalara yol gösterici olacaktır. Öğrencilerin ve öğretmenlerin daha erişilebilir ve adil şartlara sahip olabilmeleri için dijital uçuruma yönelik çalışmalara ağırlık verilmesi önem arz etmektedir. Bu amaçla, bu çalışmada uzaktan eğitimdeki dijital uçuruma yönelik güncel çalışmaların sistematik alanyazın taraması gerçekleştirilecektir. Sistematik alanyazın taramaları belirli bir konu hakkında detaylı bilgilerin ortaya konulduğu çalışmalardır. Bu sistematik alanyazın taramasında Web of Science (WOS) üzerinden gerçekleştirilecek anahtar kavram sorguları sonucunda elde edilen çalışmalar incelenerek raporlaştırılacaktır. Çalışmada kullanılan kavramlar ve sorgular şu şekilde belirlenmiştir: [(distance education) VEYA (distance learning) VEYA (open education) VEYA (e-learning) VEYA (digital education)] VE [(digital divide) VEYA (digital barriers) VEYA (technology gap) VEYA (digital equity)]. Çalışma içerisindeki yayınlar açık erişimli olması, makale olması ve 2023-2022 yıllarında yayınlanmış olmasına dikkat edilerek seçilmiştir. Elde edilen makaleler arasında tekrar eden çalışmalar çıkarılmıştır. Çalışmalar ilk olarak araştırmacılar tarafından incelenerek çalışma bağlamında uygunluğu incelenmiştir. Son olarak, çalışmanın bulgularının ortaya konulması için araştırmacılar tarafından çalışmalar tekrar incelerek raporlaştırılacaktır.

Anahtar Sözcükler: uzaktan eğitim, açık ve uzaktan öğrenme, dijital uçurum, sistematik alanyazın taraması

(311) Investigation of Primary School Mathematics Teacher Candidates' Use of Chat Robots in the Mathematical Modeling Process

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Chatbots provide various types of information and knowledge through interactive methods and easy-to-use interfaces, and can even be used as a tool for personal consultation. However, it is one of the most frequently discussed topics in the academy that the use of chatbots in education will have a negative impact on students' critical thinking, questioning and ethical issues. The capabilities of artificial intelligence enable chatbots to offer pre-service teachers the opportunity to simulate authentic, open-ended interactions. The purpose of this research is to examine primary school mathematics teacher candidates' use of chatbots in the mathematical modeling process. For this purpose, two teacher candidates who participated in the process voluntarily were asked to solve two different mathematical modeling problems by taking help from chat robots. A total of three interviews were held with teacher candidates. Teacher candidates were expected to report in detail where they used chatbots while solving these problems, what questions they asked, what they paid attention to when writing questions, how they decided that the answers they received were correct, how they compared the answers given by different chatbots during the solution process, and the impact of this situation on their solutions. Written documents obtained with a qualitative paradigm and interviews with teacher candidates were analyzed with the help of content analysis. It is thought that the findings of the research will create literature on the models put forward if the mathematical modeling cycle is supported by technology. In addition, it is also insightful for future teacher training programs.

Keywords: Chatbots, mathematics education, mathematşcal modelling

(312) Does gameful design work for adults in digital learning environments?

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Work is something you must do, whereas gaming is something you must not do. So, if you have seen someone playing a video game, you most likely noticed the determination on their face. What about the learning process? Adult learners either do not attend the learning activities or drop of the learning during the time because of their other responsibilities. In this paper, it was tried to combine Lippitt et al. (1984)'s adult learning principles and Sümer and Aydın (2022)'s gameful design principles to try to understand if gameful design works for adult learners in digital learning environments to foster learners' motivation and engagement. According to Lippitt et al. (1984), adult learners must be re-oriented to not rely solely on teachers; learning experiences must be organized around critical life experiences; adults are the most diverse sources of experience for one another; and internal motivators such as recognition, self-esteem, self-confidence, and self-actualization should be incorporated into the learning design. Besides those adult learning principles, Sümer and Aydın (2022) adds that gameful design is found to be fun by learners and to help learners stay motivated. Gameful design, according to their study, has a positive effect on learners' digital learning behaviors including visiting digital learning environment more and completing learning tasks and should be used more in open and distance learning programs. To sum up, there is no secret formula for incorporating gameful design into digital learning environments for adult learners. As a result, designers can use various elements in various combinations based on their learners' needs. However, at the end, it should be determined which game elements learners prefer over others, and the system should be updated.

Keywords: Gameful design, adult learning, digital learning.

(313) Evaluation of the Experiences of Biology Teacher Candidates regarding the Individual, Video-Assisted and Guided Visit of the Mustafa Necati Museum of Science and Education History (MUNBET)

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History of science museums are places that present materials related to scientific studies carried out throughout human history. Necatibey Faculty of Education, one of Turkey's oldest teacher training institutions, has a special value in this context. In order to protect, keep alive and transfer this value to future generations, the Mustafa Necati Education Science History (MUNBET) Museum was established in 2021 within the Necatibey Faculty of Education building with the support of Balıkesir University BAP unit. Artifacts, books, objects and laboratory materials of historical and scientific value collected in various units of the school are exhibited in the museum. Nowadays, the changes experienced especially after the Covid-19 epidemic have also affected museology, and virtual museology has become widespread with the integration of information and communication technologies into museology. Virtual museums; allows to visit museums without having to physically go to the museum. MUNBET Museum can also be visited with a video in which the materials in the museum are explained by experts. The aim of this study is to evaluate the experiences of biology teacher candidates visiting the MUNBET museum individually, with video and with a guide, and to determine the differences that arise depending on the type of visit. In the research in which 13 teacher candidates participated, data were obtained with open-ended questions and evaluated with content analysis. The questions "What is the object that impressed you the most in the museum and what is the most impressive theme of the MUNBET museum?" were asked. As a result, those who visited the museum individually stated that the most impressive objects were materials related to the theme of biology, those who visited with video stated that they were materials related to the theme of audio and visual tools, and those who visited with a guide stated that they were materials related to the theme of physics and chemistry.Those who visited the museum individually stated that the most impressive theme was biology, while those who visited with video and accompanied by a guide stated that it was biology, chemistry and visual tools. The individual visiting group found the materials related to biology, which is their field and their experience in this field, most impressive. Because just reading the description tags of materials on different themes did not impress the visitor enough. However, during the video visit, there is also a description and explanation given by an expert along with photographs of the materials in the museum. During the guided visit, the materials in different fields were also impressive for the visitors, as the materials were introduced by an expert. Finally, the video guided visit enabled more different areas to be impressive than the individual visit. Museums will be impressive even for visitors who have no interest, especially if they are supported by technologies such as video narration.

Anahtar Sözcükler: museum experience, museum visit with video, MUNBET

(314) Çevrimiçi Öğrenme Ortamlarında Psikolojik İhtiyaçlar

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Yükseköğretimde ruh sağlığı konusu hem öğrenme ortamından hem de kişisel faktörlerden kaynaklanan sebepler nedeniyle önem kazanmaktadır. Özellikle Dünya Sağlık Örgütü (WHO) ve Birleşmiş Milletlerin (UN) sürdürülebilir kalkınma hedefleri arasında öğrenenlerin ruh sağlığının desteklenmesi öne çıkmaktadır. Kendine özgü bileşenleri ve artan öğrenen kitlesi ile çevrimiçi öğrenme ortamlarında psikolojik ihtiyaçların anlaşılması belirli zorluklar taşımaktadır. Pandemi sürecinde uzaktan eğitim ortamlarının yoğun kullanımı ile bu konu ayrıca dikkat çekmiş ve psikolojik açıdan duyarlı bir uzaktan eğitim ekosistemine duyulan ihtiyaç ortaya çıkmıştır. Kapsayıcı ve proaktif bir yaklaşımla bu duyarlılığın geliştirilmesi psikolojik açıdan öğrenen ihtiyaçlarının anlaşılması ile mümkündür. Bu kapsamda çalışma, çevrimiçi ortamda psikolojik ihtiyaçların anlaşılmasına ilişkin yapılan araştırmalara Scopus ve Web of Science veri tabanlarından ulaşılarak literatürün ayrıntılı bir görünümünü sunmayı amaçlamaktadır. İlgili veri tabanlarında psikolojik ihtiyaçlar, temel psikolojik ihtiyaçlar, yükseköğretim, çevrimiçi öğrenme ve uzaktan eğitim anahtar kelimeleri ile yapılan aramalar sonucunda psikolojik ihtiyaçlarla ilgili olarak öne çıkan kuramsal yaklaşımın Öz-Belirleme Teorisi olduğu anlaşılmıştır. Yükseköğretimde psikolojik ihtiyaçlarla ilgili yapılan çalışmalarda ise farklı psikolojik yaklaşımların da kullanıldığı görülmektedir. Araştırmalarda öne çıkan örneklemin lisansüstü çevrimiçi ders ve kitlesel açık çevrimiçi derslerdeki öğrenenler olduğu görülmektedir. Yapılan çalışmalar incelendiğinde çevrimiçi öğrenme ortamlarında psikolojik ihtiyaçlarla ilişkili öne çıkan değişkenlerin motivasyon, öz-düzenleme, etkileşim ,bağlılık, iyi oluş, öğretimsel buradalık, kitlesel açık çevrimiçi ders kullanımı ve öğrenme çıktıları olduğu anlaşılmaktadır. Elde edilen bilgiler, ruh sağlığına duyarlı çevrimiçi öğrenme ortamları ve öğretim tasarımlarının oluşturulması açısından tartışılarak, kurum yöneticileri ve öğretim elemanlarına yönelik öneriler sunulmuştur.

Anahtar Sözcükler: Psikolojik ihtiyaçlar, çevrimiçi öğrenme, temel psikolojik ihtiyaçlar, uzaktan eğitim, yükseköğretim.

(315) Medya Yayıncılığında e-Öğrenme Platformu: Model Önerisi

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"Eğitimde fırsat eşitliği" ve "Yaşamboyu eğitim ilkeleri" doğrultusunda eğitim-öğretim materyallerinin kaliteli bir şekilde çeşitlendirilmesi ve yaygınlaştırılması gerekmektedir. Bilginin aktarılmasında sesli ya da sessiz video üretimleri de bu eğitim-öğretim materyalleri arasında önemli bir yere sahiptir. Günümüz dijital çağında eğitim-öğretimin desteklenmesinde medya üretimi İnternet ağ sistemleri sayesinde gittikçe yaygınlaşmaktadır. Özellikle akıllı TV üretimi ve kullanımı artmış ve televizyon yalnızca tek taraflı bir izleme aracı olmaktan çıkmış; izleyicinin istediği televizyon programlarına istediği zaman diliminde erişimine olanak sağlar hale gelmiştir. Yine dijital teknoloji sayesinde telefon ve tablet bilgisayar gibi mobil araçlarla kullanıcı daha bağımsız ve esnek hale gelmiştir. Bu anlamda günümüz televizyon izleyicisi ya da medya kullanıcısının analog teknolojiye göre bilgiye erişme ve medya aracını kullanma alışkanlıklarının değiştiğinden söz edilebilir. Bu çalışmada medya yayıncılığında mevcut e-öğrenme platformlarının değerlendirilmesi amaçlanmaktadır. Bu amaç doğrultusunda çağdaş, öncü ve yirmi birinci yüzyıl ihtiyaçlarını karşılayacak bir model önerilerek; yirmi birinci yüzyıl öğrenenlerinin bilişsel, duyuşsal ve kinestetik öğrenmelerini destekleyecek bir sistem üzerinde durulacaktır.

Anahtar Sözcükler: medya, medya üretimi, medya yayıncılığı, açıköğretim, uzaktan öğretim, e-öğrenme, model önerisi.

(316) Video Ders Materyallerinin Hazırlanmasında Gerçek Kişi Yerine Yapay Sunucu Kullanımı: Avantaj ve Dezavantajları

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Dijital çağda gittikçe yaygınlaşan e-öğrenme ortamlarında öğrenmeyi destekleyici bir ders materyali olarak video yapımlardan oldukça sıklıkla yararlanılmaya başlanmıştır. Bu tür ders materyallerinin hazırlanmasında ve sunulmasında genellikle bir sunucudan yararlanılır. Bu sunucu eğitim-öğretim alanından bir öğretim elemanı ya da mesleği sunuculuk olan profesyonel bir kişi de olabilir. Birçok alanda olduğu gibi günümüzde yapay zekâ teknolojisi e-öğrenme ortamlarında da kullanılmaya başlanmıştır. Yapay zekâ aracığıyla üretilen bir kişi bir dersin konu anlatımını veya sunumunu yapabilir. Gerçek kişilerin kullanıldığı ders videolarının yapımlarında ortaya çıkan çeşitli avantaj ve dezavantajlar, yapay zekâ ile üretilen sunucularda farklı biçimlerle ortaya çıkmaktadır. Bu çalışmada böyle bir yapay sunucu kullanımında, karşılaşılabilecek avantaj ve dezavantajlardan söz edilmektedir.

Anahtar Sözcükler: yapay zekâ, e-öğrenme, yapay sunucu, ses, medya, etik.

(317) Yirmi Birinci Yüzyıl e-Öğrenme Ortamlarında Grafik ve Animasyon Tabanlı Öğrenme Materyallerinin Oluşturulmasına İlişkin İhtiyaç

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Dijital teknolojiyle beraber video yapımların hazırlanmasında ve sunulmasında sanal fon ve görsellerden sıklıkla yararlanılmaya başlanmıştır. Sanal stüdyo sistemleri sayesinde video yapımlarının görsel olarak daha cazip hale getirilmesinin yanında, bilginin daha kolay ve kalıcı biçimde aktarılması ve sunulması amaçlanır. Eğitim-öğretimde de destekleyici bir ders malzemesi olarak video yapımlarından günümüzde hala daha ve gittikçe sıklaşan biçimde yararlanılmaktadır. Günümüz öğrenenlerinin video gibi bir medya aracılığıyla bilgiye ulaşma, medya karşısında zaman geçirme ve medya kullanım alışkanlıkları da dikkate alındığında, hazırlanan ders videolarının daha cazip hale getirilmesi gerekmektir. Dijital çağda gittikçe yaygınlaşan eğitim-öğretim ortamlarından biri olan e-öğrenmede de bilginin aktarılmasında özellikle üç boyutlu grafik ve animasyon üretimine ihtiyaç vardır. Grafik ve animasyonla desteklenen video sunumlar e-öğrenmede yalnızca dikkat çekmek değil, aynı zamanda karmaşık kavramları basitleştirerek öğrenmeyi eğlenceli ve akılda daha kolay kalıcı hale getirir. Eğitimciler ve öğrenenler için önemli bir araç haline gelen e-öğrenmede, öğretim tasarımcılarıyla beraber grafik-animasyon üretimi bilgi ve becerisine sahip çalışanlara olan ihtiyaç gittikçe çoğalmaktadır.

Anahtar Sözcükler: grafik, animasyon, e-öğrenme, medya, sanal stüdyo.

(318) Navigating the ODL Landscape: Challenges, Innovations, and Regulatory Solutions

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The mode of education was terribly reshaped and disrupted during and aftermath of COVID-19 pandemics. It was forced by the nature to adopt and adapt to Open and Distance Learning (ODL) as a primary mode of instruction. Now, educational institutions and edutech companies throughout the world are exploring and exploiting the ODL in various ways both for the development of the learning community and also for enhancing their financial positions. Thanks to 4G and 5G technology innovations, massive reduction in the price of internet bandwidth and digital devices, everything seems to be possible except for some qualities expected from educational institutions and learning community. The issues that were settled down due to emergence of ODL include bridging/eliminating the digital divide, increased engagement and motivation, Integrity in assessment and evaluation, training of the trainers and breaking the monopoly of few leading institutions. On the other hand, the new issues that have cropped up are unimaginable number of online courses and degrees offered both by leading educational institutions and also edutech companies which are not vetted or approved by higher education authorities, which is alarming and dangerous if not controlled. This paper summarizes the various forms of explorations and exploitations made by educational institutions and corporate companies and proposes some regulatory mechanisms. The regulatory mechanisms are likely to be a major boost in the offering of ODL courses.

Keywords: ODL Adaptation, Educational Innovation, Regulatory Frameworks

(319) Artificial Intelligence in Education and Ethics

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Artificial intelligence applications in education have many benefits for improving learning experiences. However, it is crucial to understand its limitations, potential risks and ethical drawbacks. This study was conducted to understand the scope of the ethical use of artificial intelligence in education and to determine the ethical concerns that arise with the use of artificial intelligence in education. In line with the reviewed studies, it was investigated which ethical concepts were discussed in the studies on artificial intelligence, education and ethics, which concepts were emphasized the most in keywords and abstracts, how scientific production varies according to years and how the trend subject distribution is according to years. In this context, qualitative and quantitative analysis methods were used in the study. A systematic search was conducted in the Scopus database using the keywords 'artificial intelligence, education and ethics'. A total of 22 studies in which these keywords were found together in the title of the research and 906 studies in the title, keywords or abstract were listed. 22 studies were analyzed through qualitative content analysis. 906 studies were examined with the bibliometric analysis technique, aiming to obtain richer insights by synthesizing the research topic quantitatively; Biblioshiny program was used. According to the findings of the qualitative content analysis of the 22 articles included in the study, the most emphasized ethical concepts in the use of artificial intelligence in education were biased artificial intelligence algorithms (justice, equality and inclusiveness concerns etc.), confidentiality and privacy, transparency and accountability, responsibility, academic integrity, security, autonomy and nonmaleficence. In the text analysis of the keywords obtained by bibliometric analysis of 906 studies, it was found that privacy, academic honesty, transparency were the most frequently emphasized ethical issues; in the text analysis of abstracts, the terms AI ethics, ethics education and ethical concerns were frequently repeated. It is understood that the highest scientific production related to the research topic belongs to the years 2022, 2023 and 2024. In the trend topic distribution, it was seen that in 2024, studies on large language models, medicine, politics, plagiarism; in 2023, studies on artificial intelligence, ethics, education, chatgpt, artificial intelligence ethics were concentrated. Emphasizing the ethical aspects of the use of artificial intelligence in education is of great importance in guiding both educational stakeholders and technologists who will develop AI-supported applications and in raising awareness of the society about the ethical issues of these technologies. This study, which aims to provide an overview of the ethical use of artificial intelligence in education, is thought to contribute to the conceptualization and implementation of ethical elements.

Anahtar Sözcükler: Artificial intelligence, education, ai in education, ethics

(320) Experience of Creating an Integrated Information System in Higher Education Institution in the Context of Digital Transformation

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To successfully implement digital transformation in higher education, the use of digital technologies in teaching, learning and administrative processes is crucial. This transformation is necessary to adapt to the evolving educational landscape and to ensure that institutions keep pace with technological developments (Ngafeeson, 2021). Digital transformation in higher education encompasses not only technological developments but also organizational, social, and pedagogical aspects (Kuzminska, 2023). Anadolu University is a dual-mode university implementing face-to-face and distance education models. Therefore, it is very important to implement digital transformation in all educational and managerial areas. Research in the literature underlines the importance of identifying drivers, success factors, benefits and challenges related to digital transformation in higher education. By understanding these key issues, higher education institutions can develop effective strategies to overcome the complexities of digital transformation and maximize its impact on teaching, learning and institutional operations (Robertsone & Lapiņa, 2022). In this sense, Anadolu University plans for the coming years with its strategic plans. The Computer Research and Application Center within the university is a center that develops software according to the needs of the institution. An Integrated Information System was designed by this center within the framework of the implementation of digital transformation at the university. The integration of information systems contributes to increased efficiency by automating various activities such as managing student and staff databases in higher education institutions. Similarly, Enterprise Resource Planning (ERP) systems play an important role in integrating various functions in higher education institutions, leading to increased operational efficiency and performance (Alloush & Er, 2020). The integrated information system is designed to access all automation systems used within the university from a single point. Digital transformation in higher education is a multifaceted process that requires a comprehensive approach that encompasses technological innovation, pedagogical evolution, and organizational change. Integration of information systems in higher education is important for increasing efficiency, enhancing learning experiences and ensuring sustainable development. By using modern technologies and adopting integrated systems, higher education institutions can adapt to evolving educational environments and meet the diverse needs of students, faculty and staff. In this study, the experiences gained in the process of creating Anadolu University Integrated Information System in the context of digital transformation will be shared.

Keywords: Digital Transformation, Integrated Information System, Higher Education

(321) Açık ve Uzaktan Öğrenmede Metaverse Teknolojisinin Geleceği: Bir Ufuk Taraması / The Future of Metaverse Technology in Open and Distance Learning: A Horizon Scan

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Although the Metaverse technology, which attracts the attention of technology giant companies, futurists, educators and many people who are new to this concept, is still in its infancy, it is obvious that it will be the new advanced form of digital media in the future. The Metaverse, which actually has a long history when its first versions are taken into consideration, today opens the door to major transformations in every field. In the long run, these transformations will also have reflections in the field of education. Indeed, with its interactive structure that combines real and virtual experiences, Metaverse technology is thought to offer a new, realistic, and desirable learning environment for open and distance learning applications in the future. Numerous studies focusing on Metaverse support this idea. The related literature includes many predictions about the strengths and weaknesses, opportunities and threats, positive and negative effects of these environments in traditional and especially distance education, which types of education will be included in these environments, and what the role of the instructor will be. These predictions provide clues for the use of Metaverse examples in the open and distance learning context in the near future. In this context, this study aims to make predictions based on the clues in the studies on Metaverse and to develop a future scenario for Metaverse applications in open and distance learning within the scope of the predictions to be presented. For this purpose, a horizon scanning method was used to examine the studies that contain clues about the future of Metaverse technology in the literature. In the light of the findings, predictions about Metaverse technology in the next five, ten and twenty years have been reached and a narrated future scenario has been included as a result of the research.

Anahtar Sözcükler: Metaverse, open and distance learning, horizon scanning, scenario

(322) Exploring the Relationship Between Gamification User Type and Online Learning Readiness: An Exploratory Study

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Online learning has become increasingly prevalent in recent years, necessitating a thorough understanding of factors that influence learner success in this environment. Online learning readiness, encompassing the skills and attitudes required for effective online learning, plays a crucial role in determining learner outcomes. Gamification, the application of game-like elements to non-game contexts, has garnered increasing attention as a potential tool to improve engagement and motivation within online learning environments. However, the interplay between online learning readiness and gamification user types remains largely unexplored. This exploratory study delves into the relationship between online learning readiness and gamification user types, aiming to identify patterns and insights that can inform the development of effective gamified online learning experiences. The participants comprised 150 students enrolling at a vocational college during the spring semester of the 2023-2024 Academic Year. Gamification User Types Hexad questionnaire and Online Learning Readiness Scale were utilized for data compilation. The Kruskal-Wallis test was conducted to examine whether online learning readiness differs significantly among the dominant gamification user types of participants. To assess the relationship between Hexad user type scores and online learning readiness subscales, Pearson's correlation coefficient was calculated for each subscale and the overall Hexad user type score. The study revealed significant differences in online learning readiness scores among the dominant gamification user types of students. Moreover, a consistent pattern emerged, with Pearson's correlation analysis revealing a positive and statistically significant relationship between online learning readiness and all Hexad user type scores except for the disruptor user type. The results suggest that students with different gamification user types may have varying levels of preparedness for online learning environments. This information can be particularly valuable for educators and instructional designers when developing targeted online learning interventions. As previous research has shown, each gamification user type is driven by unique motivational preferences and finds a sense of accomplishment in different aspects of gamification design.

Anahtar Sözcükler: Gamification user type, online learning readiness, Hexad

(324) Açık ve Uzaktan Öğrenme Ortamlarında Üstbilişsel Öğrenme Yöntemi

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Öğrenme, bireyin tecrübeleriyle, gözlemleriyle veya dışsal olarak edindiği bilgileri davranışlarına yansıtarak izlediği yolu ifade eder. Ancak toplumsal olarak öğrenme, bireyin yalnızca eğitim dönemine denk düşen bir sürecin karşılığı olarak sıklıkla anlam karmaşasına yenik düşer. Öğrenme, bireyi birtakım yaşantılardan doğan bilgi ve tecrübeler vasıtasıyla fark etmeye ve harekete geçmesi halinde de bilinçli bir farkındalığa götürür. Bu doğrultuda öğrenmeyi yalnızca zorunlu eğitim sürecine bağlı kalınan bir eylem değil; yaşam boyu öğrenme sürecini kapsayan bir tutum şeklinde yeniden çerçevelemek faydalı olacaktır. Öğrenmenin geleneksel sistemlerde alınan eğitimler yerine yaşam boyu öğrenme olarak tanımlanması, bireyin beceri ve yetkinliklerini çeşitli öğrenme araç ve ortamları ile zenginleştirmesine de olanak tanımaktadır. Teknolojik olanakların gelişmesi ile yaşam boyu öğrenmenin önündeki zaman ve mekân engellerinin açık ve uzaktan öğrenme ortamları ile ortadan kalktığını söyleyebiliriz. Açık ve uzaktan öğrenme ortamları esnek yapısı ile öğrenenlere kendi hızlarında ilerleme imkânı sağlar. Öğrenenin yaşam boyu öğrenme yolculuğunu kendisinin yönetme yetkinliğine sahip olması, açık ve uzaktan eğitimini daha etkili kılmaktadır. Bilişsel yeteneklerinin, kaynaklarının ve onları birlikte nasıl kullanacağının farkında olan öğrenenlerin üstbilişsel farkındalığa sahip olduğu söylenebilir. Üstbiliş kavramı ilk olarak 1979'da Flavell tarafından yapılandırılmıştır. Flavell, üstbilişi öğrenilen girdileri bilinçli şekilde yapılandırılması ve belleğe alınması, bellekte bulunan bilgilerin taranması ve içlerinden gerekli olan bilginin bulunup çıkarılması işlemi ve bellekte bulunan bilgileri izleme işlemleri ve depolanmış bilgilerin bilincinde olma olarak açıklamıştır (Flavell, 1979). Öğrenenin bireysel öğrenme yolculuğunu başlangıcından itibaren planlama, uygulama, değerlendirme aşamalarını objektif bir taraftan tasarlaması, sürdürmesi ve analiz etmesi aldığı eğitimden faydalanma ve farkındalık düzeyine olumlu katkılarda bulunmaktadır. Açık ve uzaktan öğrenmenin, öğrenenin öz disiplin ve öz düzenleyicilik gibi üstbilişsel becerilerinin geliştirilmesi ile daha etkin ve verimli olabileceği düşünülmektedir. Bu çalışma açık ve uzaktan öğrenme ortamlarında üstbilişsel becerilerin geliştirilmesinin öğrenen deneyimine katkılarını incelemek amacıyla ilgili alanyazın taraması ile kapsayıcı bir bakış açısı sunmayı hedeflemektedir.

Anahtar Sözcükler: Üstbilişsel öğrenme kuramı, açık ve uzaktan öğrenme, yaşam boyu öğrenme.

(325) Web Teknolojilerinin Yazmanın Duyuşsal, Güdüsel ve Öz İnançlarla İlişkili Değişkenler Üzerindeki Etkisi: Bir Meta-Analiz Çalışması

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Duygular, güdüler ve öz inançlar yazma eylemini etkileyen önemli değişkenlerdir. Bu etkiye rağmen söz konusu değişkenlerin araştırma nesnesi olduğu bilimsel çalışmalar, beceri geliştirme odaklı yazma araştırmalarının niceliksel olarak gerisindedir. Birden fazla araştırmanın birlikte ele alındığı sistematik derleme çalışmalarında da benzer bir durum söz konusudur. Alan yazındaki meta-analiz ve meta-sentez gibi çalışmalarda ele alınan değişkenler çoğunlukla yazının niteliği, başarı ve beceri gibi değişkenlere odaklanmış durumdadır. Bununla birlikte web teknolojilerinin yazma süreç ve çıktılarına etkisinin incelendiği kapsamlı araştırmalarda da duyuşsal ve güdüsel değişkenlere ilişkin veriler oldukça sınırlıdır. Bu eksiklikten hareketle çalışmada; web teknolojilerinin duyuşsal, güdüsel ve öz inançlarla ilgili çeşitli değişkenler üzerindeki genel etkisinin tespit edilmesi amaçlanmaktadır. Meta-analiz yönteminin kullanılacağı bu araştırmaya Türkiye'deki okullarda yapılan yarı deneysel/deneysel çalışmalar dâhil edilecektir. Bu çalışmaların etki büyüklüğüne ilişkin hesaplamalar, heterojenlik testleri, yayın yanlılığı ve moderatör analizleri Comprehensive Meta Analysis v3.0 (CMA) istatistik yazılımı kullanılarak gerçekleştirilecektir. Çalışmanın teknoloji-yazma psikolojisi bağlamında yorumlanabilecek ve uygulamaya dönük çıkarımlar yapmaya imkân verecek bulgular ortaya koyarak alan yazına katkı sağlayacağı düşünülmektedir.

Anahtar Sözcükler: Web teknolojileri, yazma eğitimi, yazma güdüsü, duyuş, meta-analiz

(326) Evidence of Financial Development Convergence for Heterogeneous Developing Regions

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This study delves into the dynamics of overall financial development convergence within two distinct categories of developing regions: the top performers represented by European and Central Asian nations and the bottom performers typified by South Asian countries. To assess convergence, we apply both the LM and RALS-LM unit root tests to annual data spanning the period from 1984 to 2016. Additionally, we leverage the Philips and Sul (PS) club convergence approach to gauge the pace of financial development convergence. Our findings, derived from the LM and RALS-LM unit root tests, affirm the presence of financial development convergence across all countries encompassed in both the top and bottom globalized developing regions. However, an intriguing divergence emerges when scrutinizing overall financial development convergence across these regions. While the PS test supports convergence in the bottom globalized developing region, the top globalized developing region exhibits no such trend. Remarkably, these results diverge further when examining financial development at the institutional and market levels. Furthermore, the analysis reveals that the rate of financial development convergence in the bottom globalized developing region is slower than that in the top globalized developing region. This implies that strengthening governance within financial markets can be instrumental in fostering a productive and efficient financial system for the bottom globalized developing region. In terms of policy implications, it is essential for policymakers to prioritize governance reforms in financial markets as a means to expedite financial development convergence, particularly in regions lagging behind. Additionally, efforts to bolster overall financial development convergence should consider the unique dynamics at play in different globalized developing regions, tailoring policies accordingly.

Keywords: Financial Institution; Financial Market; Convergence; LM and RALS-LM; PS convergence test

(327) Üretken Yapay Zeka Destekli Matematik Dersi için Bir Ders İçi Etkinlik Tasarımı Çalışması

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Dinamik yazılımlar denince matematik öğretmenleri ve akademisyenlerin aklına dinamik geometri yazılımları gelir. Oysa ki günümüzde "GeoGebra ve Desmos" gibi bu yazılımlar tablo oluşturma, seri oluşturma, fonksiyon oluşturma, bazı istatistik analizleri yapma gibi cebir ve olasılık konularında da işlev görmektedir. Bu çalışmada "Gemini" isimli üretken yapay zeka dil modeline ürettirilen tabloda yer alan sayı ikilileri (bir uçağın yükseklik-zaman değişkenleri) "Geogebra" yazılımda nokta listesine dönüştürmek, ardından noktaların oluşturduğu eğriyi $ax^2+bx+c=y$ formatında(ikinci dereceden bir bilinmeyenli) bir denklem şeklinde tarif etmek, tabloda olmayan "t" zamanında ortalama yüksekliği grafik üzerinden ve tablo yaparak hesaplamaya çalışmak suretiyle lise müfredatında bulunan ve literatürde geçen "türevin belirli bir anda ortalama değişim hızı" şeklindeki türevin limit tanımına ulaştırmayı hedefleyen bir ders içi etkinlik tasarlanması amaçlanmıştır. Çalışmanın sonunda eğitimciler, eğitim programı tasarımcıları ve akademisyenler için önerilere yer verilmiştir.

Anahtar Sözcükler: Üretken yapay zeka, dinamik matematik yazılımları, türev, limit,

(329) Investigation of The Effect of Stem-Supported Activities ON The Students' Academic Success, Attitudes and Motivations in the Simple Machines Unit

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This study was carried out on the simple machines unit, which is one of the subjects that secondary school 8th grade students approach with prejudice.The aim of this study was to examine the effect of STEM-supported activities on students' academic achievement, attitudes and motivations in the simple machines unit. The research was carried out with 140 secondary school eighth grade students in a secondary school located in the city center of Ağrı, which was selected through convenient sampling. In the study, quasi-experimental research method with pre-test and post-test applied was used.Quantitative data in the research were obtained by using the Simple Machines Unit Achievement test, the Science and Technology Attitude Scale for Secondary School Students, and the Motivation Scale for Learning Science.Qualitative data of the study were collected using a semi-structured interview form.In the research, quantitative data were analyzed with the descriptive analysis method using the SPSS package program, while the qualitative data were analyzed by content analysis method by creating codes and themes from the information obtained from semi-structured interview forms.As a result of the findings, it was determined that STEM-supported activities were more effective in increasing the academic achievement, attitudes and motivations of 8th grade students in secondary school.In addition, as a result of the findings obtained from the interview forms, it was observed that STEM activities increased the cognitive, affective and psychomotor skills of the students.

Anahtar Sözcükler: Science Education, Simple Machines, STEM

(330) Distance Learners' Feedback on Quality Assurance:The Case of Anadolu University Open Education System

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Anadolu University Open Education System is a pioneering institution in the field of open and distance education with more than 40 years of knowledge and experience. Since the day it was founded, the university has aimed to provide quality education opportunities to individuals of all ages and walks of life by adopting the principle of equal opportunity policy in education. This study was designed to ensure the quality assurance and continuous improvement of the distance programs. Within this context, the program evaluation team examined in detail the satisfaction levels and expectations of learners regarding the education programs and services offered. The findings of this cross-sectional survey study, revealed the strengths of the Open Education System and the areas that need to be developed. The findings provide guidance on the action plans to be initiated in open and distance education programs for more effective, accessible and learner-oriented design. Research findings are discussed and suggestions for future research are presented.

Keywords: open and distance education, distance higher education, quality assurance

(331) Investigation of New Generation Science Questions in Terms Of Innovational Skills from the 21st Century Learning Skills

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In this study, in order to examine the effect of innovation skills, one of the 21st century learning skills, on the new generation questions, the Science questions in the High School Entrance Examinations (LGS) applied in Turkey between 2018 and 2023 were analyzed. The sample of the study, in which the document analysis research model was used, consists of 120 Science course questions in LGS between 2018 and 2023. Using the literature as a data collection tool, an analytical rubric consisting of five criteria and three levels was developed by the researcher. The relevant rubric consists of "creativity", "self-efficacy", "energy", "risk tendency" and "leadership" criteria. The part where these criteria are not included is designated as "Level 1", the part where they are partially included is designated as "Level 2", and the part where they are adequately included is designated as "Level 3". The score to be obtained from Level 1 is determined as zero, the score to be obtained from Level 2 is determined as one point, and the score to be obtained from Level 3 is determined as two points. In this context, 120 Science course questions in LGS between 2018-2023 were analyzed with the help of analytical rubric. As a result of the findings, percentage-frequency calculations were made and the data were presented in tables. As a result of the study, it was seen that in the Science questions in LGS between 2018 and 2023, the self-efficacy sub-dimension of innovative skills was included the most (65%), and the risk tendency sub-dimension (14%) was included the least.

Anahtar Sözcükler: 21st century learning skills, new generation, innovation.

(332) A systematic analysis of open educational resources developed with generative AI

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Investigating the rising effect of artificial intelligence in the field of education and the role it plays in the development of open educational resources is an important part of today's distance education literature. This study aims to conduct a systematic review using the PRISMA technique to evaluate the effectiveness, accessibility and pedagogical value of open educational resources developed with artificial intelligence. The criteria for the selection of the studies were that they were developed with generative artificial intelligence, published in peer-reviewed journals, published in English or Turkish, published in the last 10 years, available in WoS, ISI, Scopus, Google Scholar, PubMed, NLM, Medline databases. This analysis will provide insights into how AI technologies can make a difference in the design, distribution and evaluation of educational materials and will reveal the potential benefits and limitations of these technologies. It is also planned to provide a wide range of perspectives on how the developed open educational resources will meet quality standards, which strategies and policies should be followed in this context, how they will support social justice and equal opportunity in education, and to what extent they will be efficient and effective. In addition to evaluating the impact of the findings obtained in line with the research questions on the learning processes of AI-supported open educational resources, the sustainability and scalability of these resources.

Anahtar Sözcükler: generative AI, open educational resources, open and distance education

(333) Yedinci Sınıf Öğrencilerine Dinleme Becerisi Öğretiminde Yapay Zeka Destekli Araçların Kullanımı

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Dinleme, öğrencilerin anlama ve yorumlama yeteneklerini şekillendirir. Metinleri kendi bağlamında doğru anlamak için sesleri fark etmek, vurgu ve tonlamalara dikkat etmek gereklidir. Günümüzde eğitim alanında teknolojinin gelişimi, öğrenme süreçlerini dönüştürme potansiyeli sunmaktadır. Bu çalışma eğitim alanında yapay zekâ teknolojisinin dinleme becerileri üzerindeki potansiyelini ve etkisini anlamak için önemli bir adımdır. Bu araştırmada yapay zekâ desteğiyle seslendirilen metnin Türkçenin prozodik unsurlarından vurgu, ritm ve tonlamaya uygun olup olmadığını ve öğrencilerin bu sesletim hakkındaki görüşlerini öğrenmek amaçlanmıştır. Bu amaca ulaşmak için aşağıdaki sorulara cevap aranmıştır: 1. Yedinci sınıf öğrencilerinin prozodik unsurlardan vurgu, tonlama ve ritm özellikleri hakkındaki önbilgileri nelerdir? 2. İnsan sesiyle oluşturulan dinleme metni ile yapay zekâ desteğiyle oluşturulan dinleme metnindeki prozadik unsurlar öğrencilerin dinlediğini anlamasında farklılık oluşturmakta mıdır? 3. İnsan sesi ile oluşturulan dinleme metni ile yapay zekâ desteğiyle üretilen dinleme metnindeki prozadik unsurlara dair (unsurlarıyla ilgili olarak/unsurları hakkında) öğrencilerin ayrıştırıcı dinleme becerileri nasıldır? Araştırmada nitel araştırma yöntemlerinden görüşme ve gözlem yöntemi kullanılmıştır. Araştırmanın örneklemini Hatay ilinde yedinci sınıfa giden 20 öğrenci oluşturmuştur. Öğrencilere vurgu, tonlama ve ritm gibi ses özellikleriyle ilgili ön bilgilerine yönelik sorular sorulmuş ardından insan sesiyle kaydedilen metinle yapay zekâ aracıyla oluşturulan aynı metin öğrencilere dinletilmiştir. Öğrencilerden bu iki metnin vurgu, tonlama ve ritm gibi unsurlarını karşılaştırmaları istenmiş ve uygulama sonunda öğrencilerin iki dinleme metni arasındaki ses özelliklerinin farklılığına dair görüşleri alınmıştır. Araştırmanın sonuçları, öğrencilerin dinleme becerilerini geliştirmek için yapay zekâ destekli araçların etkin bir şekilde kullanılmasının mümkün olduğunu ve önemli bir araç olabileceğini göstermektedir. Türkçe eğitiminde yapay zekâ destekli araçların dinleme becerisini geliştirmek için kendisine nasıl bir kullanım alanı bulacağı üzerinde düşünülmüştür. Bu araştırmanın sonuçlarına dayanarak, gelecekte eğitimcilerin dinleme becerilerini desteklemek için yapay zekâ teknolojilerini daha fazla kullanacakları öngörülmektedir. Yapay zekâ destekli eğitim materyallerinin oluşturulması yaygınlaştırılmalıdır. Ayrıca, öğrencilerin yapay zekâ destekli araçlarla ses analizi yaparken daha etkili olabilecekleri etkinlikler ders kitaplarında yer almalıdır.

Anahtar Sözcükler: Dinleme eğitimi, yapay zekâ, ayrıştırıcı dinleme stratejisi

(334) Unveiling Metaphorical Insights: Exploring Learner Attitudes towards Online Exams

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Designed as a qualitative phenomenological study, this study aims to reveal students' attitudes towards online exams by unearthing the metaphors underlying the perceptions of various online learning communities. Accordingly, 392 students enrolled in Anadolu University Open Education programs during the 2022-2023 Spring semester belonging to six different online communities were asked to complete the sentence "Online exams are like ....; because ....". The study gathered extensive descriptive data to fully grasp how students felt about and experienced the online exam, without beginning with preconceived hypotheses. 58.9% of the participants were female and 41.1% were male, and 21.2% were aged 18-22, 22.7% were aged 23-27, 11.5% were aged 28-32, and 44.6% were 33 or older. 19.6% were members of the Information Community, 18.6% of the Photography Community, 23.7% of the Book Community, 6.6% of the Music Community, 15.6% of the Cinema Community, and 15.8% of the History Community. The research questions of the study were: 1. What metaphors do online learning communities produce about online exams? 2. How is the distribution of metaphors produced by online learning communities according to the themes? To ensure the reliability of the findings, the researchers performed their content analyses separately, and then moved on to comparing their analyses by discussing the extent to which the categories they had identified accurately reflected the underlying metaphors. Reliability was assessed by calculating the proportion of identical decisions to the total of both identical and different decisions, resulting in a reliability measure of 94%. The results indicated that the majority of participants (63.3%), expressed a positive metaphor. In contrast, 30.1% of participants reported a negative metaphor, and 6.6% expressed a neutral metaphor. The thematic frequency analysis showed that the majority of responses fell under the "Usability" theme, constituting 48.7%, followed by "Cheating/Plagiarism" at 20.7%. Other themes such as "Feedback" and "Development Criteria" contribute with 6.6% and 5.4%, respectively. The "Usability" theme (n=191), reflecting a positive attitude, stood out as the most emphasized across all age groups and community types. The "Cheating/plagiarism" theme (n=81) emerged as the strongest among the negative perceptions. In terms of gender, it was observed that women generated a greater number of positive metaphors compared to men (n=158, n=90, respectively). Although students in online learning communities found online exams "useful," they also perceived "cheating" as a significant potential risk. While such exams offer some advantages in terms of academic success, the fact that unsupervised or inadequately monitored exams are not considered reliable by students is an important caution to be heeded. Therefore, institutions that assess students through online exams must take the necessary measures to ensure fair assessment.

Keywords: Metaphors, online learning communities, distance education, online assessment, learner attitudes

(335) Enhancing Distance Learning of Chemistry Through Augmented Reality

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Augmented reality (AR) has emerged as a promising technology to enhance the learning experience in various fields, including chemistry education. This paper explores the potential of AR in distance learning of chemistry, highlighting its ability to create virtual laboratories, visualize molecular structures, provide interactive content, simulate field trips, facilitate collaborative learning, and enable remote assistance. These capabilities offer unique opportunities to engage students, make abstract concepts more tangible, and provide a more interactive and effective learning experience. This paper discusses the benefits of using AR in chemistry education and provides insights into how AR can be integrated into distance learning curricula to enhance student learning outcomes.

Keywords: Augmented Reality, Distance Learning, Chemistry Education, Virtual Laboratories, Molecular Visualization, Interactive Content, Field Trips, Collaborative Learning, Remote Assistance.

(336) Visual and Instructional Design Principles for Creating Learning Partner Character Targeting Online K12 Students

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The goal of this paper has several folds. First, it provides details about the vision of a leading online learning content provider in Turkiye, namely tongucAKADEMI. Second, this study provides a summary of research on the use of online learning partners in online informal learning. Third, it elaborates on the visual and instructional design principles implemented in the development processes of these characters. Finally, the paper offers a list of recommendations for practitioners and researchers regarding the design of learning partners, pedagogical agents and avatars to be used in online learning environments. tongucAKADEMI is a pioneering and leading organization in digital informal learning focusing on K12 in Turkiye. The organization was established with the mission of providing equal education opportunities to all in the country in 2014, and has reached millions of students. It focuses on the K12 curriculum and offers video-and text-based remedial instruction and test preparation targeting the outcomes of the curriculum at all levels. The main differentiation strategy of tongucAKADEMI is the dedication to turn learning into fun and interactive activities. For instance, the use of an avatar, tonguç, is intended to help students feel empathy and maintain their attention throughout the online course. The courses offered via tongucAKADEMİ include several learning partners and avatars. During the creation of these characters, a minimalist approach was employed to make them as simple as possible. Komika, Block Pro, Empire Dirty, KG Blank, Luckiest Guy, and Poppin font styles were used in all digital designs. Data collected via analytics as well as user comments have shown that a good majority of the users (students) actually establish empathy with the character, which helps them keep their attention alive and leads to a deeper learning experience.

Keywords: Learning Partners, K12 Online Learning, Informal Learning, Visual Design Principles, Instructional Design Principles

(337) Çevrimiçi Öğretim Programı Dışı Öğrenme Etkinliklerinde Oyunlaştırma Kullanımı

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Bu bildirinin amacı, Liseye Geçiş Sınavı (LGS) hazırlığı için oluşturulan çevrimiçi öğrenme ortamlarında oyunlaştırma kullanımına ilişkin deneyimleri paylaşmaktır. Eğitsel oyunlar ve eğitimde oyunlaştırma, yapı, tasarım ve eğitim hedefleri açısından farklılık gösterse de öğrenme deneyimlerini geliştirmek için oyun tabanlı mekanikleri kullanan iki yaklaşımdır. Hem eğitsel oyunlar hem de oyunlaştırma, öğrenme süreçlerini daha etkileşimli ve eğlenceli hale getirmeyi amaçlayarak öğrencilerin ilgisini çekmek ve onları motive etmek için oyun benzeri unsurları kullanır. Her iki strateji de öğrenci katılımını, motivasyonunu ve eğitim faaliyetlerine katılımı artırmaya çalışmaktadır. Oyunlaştırma, geleneksel öğrenme deneyimini geliştirmek için puanlar, rozetler ve liderlik tabloları gibi oyun tasarım öğelerini mevcut eğitim ortamlarında kullanmasını içerir. Oyunlaştırma kullanımındaki temel amaç katılımı ve motivasyonu artırmaktır. Araştırmalar oyunlaştırmanın, eğitim ortamlarında öğrenci katılımı, motivasyon ve öğrenme amaçlarına erişim konularında olumlu etkileri olduğunu göstermektedir. tonguçAKADEMİ, Türkiye'de ilk ve ortaöğretim öğrencilerine sınava hazırlık ve derslere destek amaçlarıyla 2014 yılında bugüne hizmet etmektedir. tonguçAKADEMİ kapsamında kullanılan oyunlaştırma unsurlarında biri tonguçCUP uygulamasıdır. tonguçCUP'ın çıkışındaki önemli faktörlerden ilki öğrencilerin istikrarlı bir şekilde aylık programlarına bağlı kalarak ders çalışabilmesini sağlamak, ikincisi ise öğrencilerin takımdaşlık ruhu ve kolektif bilinç kazanmasına katkıda bulunmaktır. onguçCUP, öğrencilerin bir takım halinde hareket etmesini, bu takımdaki görevlerini düzenli bir şekilde yerine getirerek sorumluluk duygusu kazanmalarını amaçlamaktadır. MEB müfredatıyla tamamen uyumlu hazırlanan bu proje sayesinde öğrenciler sadece tonguçCUP'ta değil okul derslerinde ve girdikleri sınavlarda da başarı elde etmektedirler. Bilge Baykuşlar ve Hızlı Çitalar takımlarına dahil olan öğrencilerin kendilerine ait bir logoları, sloganları ve takım koçları (rehberlik hocaları) bulunmaktadır. Toplam 4 Sezondan oluşan tonguçCUP yarışmasında sezon sonlarında dereceye giren öğrenciler ödüllendirilmekte, madalyalarını bir törenle almaktadırlar. Kulllanıcı yorumlarının içerik analizi, öğrencilerin büyük bölümünün bu oyunlaştırma uygulaması konusunda son derece olumlu düşündüklerini ortaya koymuş, analizler sonucunda oyunlaştırmanın olumlu etkileri ilgiyi canlı tutma, başarıyı arttırma ve kalıcı öğrenmeye yardımcı olma temaları altında toplanabileceğini göstermiştir.

Anahtar Sözcükler: Gamification, K12 Online Learning, Learners' Reflection

(338) ESP Module in Management Communication for Adult Learners

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The study aimed to develop a learning module for adult learners in the course Management Communication using an English for Specific Purposes Approach. Specifically, the study anchored the development of learning module in terms of: proficiency level of learners; situations for developing sub-skills in various communication skills of listening, speaking, reading, writing, vocabulary, and register analysis. Also, it presented the development of the ESP module for adult learners on the basis of evaluation by the experts in terms of: objectives; format; content; language; and usability. The study was descriptive-evaluative in nature. The preliminary data was done through survey-questionnaire. The respondents were composed of ten students under the program Master of Business Administration. The survey-questionnaire was intended to identify the certain needs of adult learners based on real life scenarios and skills in their workplace. The situational skills with the highest need frequency were gathered and those became part and content of the learning module. The survey questionnaire used by Deang (2020) was used to evaluate the objective, format, content, language, and usability of the learning module by the five language experts and five content experts. The obtained data were treated statistically using mean in order to describe its content validity. Considering the data gathered in the study, the pool of experts gave the learning module a strongly agree grade with a mean of 3.87 in terms of its objectives, format, content, language, and usability. The learning module can be useful to the MBA students and Business Administration educators.

Keywords: English for Specific Purposes, Adult Learners, Module

(339) Empirical Research on Network Analysis in Physics Education: A Systematic Literature Review

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Network analysis has become a key quantitative tool for analyzing communication and evaluation in Physics Education research in the last ten years. The current article offers an extensive systematic review of network analysis usage in empirical research from 2013 to 2023, as recorded in the Scopus database. Our research aims to explore: (1) the topics within Physics Education research that utilize network analysis, and (2) how network analysis functions as a quantitative tool within this field. Adhering to Okoli's systematic literature review methodology, we evaluated 83 out of 259 documents. Our findings show that 72.29% of network analysis in Physics Education research focuses on learning, curriculum, and social interaction, while 27.71% addresses concepts and measurements. The advancements noted in these studies offer a foundation for further developing network analysis methods in Physics Education, considering factors like sample size and algorithm choice. This document is intended to guide Physics Education researchers and those in related disciplines, such as Social Network Analysis, curriculum assessment, and Physics learning material development. It also aids in examining the underlying structure of instruments. Network analysis is poised to make a significant impact on future research in these areas.

Keywords: Network Analysis, Physics Education, Social Network Analysis, Curriculum.

(341) Towards More Accurate Help: How to Support NDD Children by Serious Games and Eye Tracking Technologies

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The vision behind this research is to contribute to the development of a platform that supports children with neurodevelopmental disorders (NDD) in their learning. Knowledge about a child's NDD specificity and personal ability, together with illustrating the child's learning progress while playing games, will inform teachers how to help the children better. The current platform incorporates some games based on standardized tasks built with contributions from researchers in education and psychology. The paper presents different alternatives for aligning data from sensory technologies with serious game outputs and results, as well as a platform that allows for the choice of games and tailoring of tasks to personalized requirements. The aim is to illustrate the different possibilities of using eye tracking (ET) technologies to connect dynamic objects for a concrete case.

Keywords: special education, serious games, eye tracking technologies, aligning data

(342) Çevrimiçi Öğrenmede Oyunlaştırma: Fırsatlar ve Riskler

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"Öğrenirken eğlenme" ilkesine dayanan oyunlaştırma; görev, rozet, puan, ödül, geribildirim ve lider tablosu gibi oyun ögelerinin oyun dışı bağlamlarda kullanılması olarak tanımlanmaktadır. Araştırmalarda oyunlaştırmanın öğrencilerin performans, motivasyon ve katılımları üzerinde etkin rol oynadığı vurgulanmaktadır. Özellikle çevrimiçi öğrenme sistemlerinde umut verici bir öğrenme yaklaşımı olarak görülmektedir. Ancak çevrimiçi öğrenme ortamlarında oyunlaştırma kullanımına ilişkin araştırma sonuçları hala tartışmalıdır. Bu nedenle araştırmada 2016-2022 yılları arasında Science Direct, Taylor Francis Online ve Springer Link veritabanlarında çevrimiçi öğrenmede oyunlaştırma üzerine yayınlanmış 38 makale incelenerek bu konu alanındaki güncel araştırma eğilimleri belirlenmiş, potansiyel fırsatlar ve riskler tartışılmıştır. Araştırmaların kuramsal çerçevesi incelendiğinde; en çok Kendi Kaderini Belirleme Teorisi (Self-Determination Theory) kullanıldığı, ancak çalışmaların %58'inin herhangi bir teori ya da modele dayalı olarak yürütülmediği belirlenmiştir. Bu doğrultuda araştırmaların çoğunluğunun kuramsal bir altyapıya sahip olmadığı ve bu durumun konu alanında teorik bir boşluk oluşturduğu söylenebilir. Çalışmaların büyük bir çoğunluğunun (%68) nicel araştırma olarak yürütüldüğü, 10 makalenin karma yöntem ve sadece bir makalenin nitel araştırma yöntemi ile desenlendiği belirlenmiştir. Böylece gelecekte yapılacak daha fazla nitel ve karma yöntem araştırmalarına ihtiyaç olduğu sonucuna ulaşılabilir. Araştırma sonuçlarına göre; oyunlaştırılmış öğrenme etkinliklerinin motivasyonu, performansı, katılımı ve ders tamamlama oranlarını artırdığı belirlenmiştir. Ayrıca araştırmalarda kullanılan oyun elemanlarının ve öğrencilerin kişisel özelliklerinin araştırma sonuçları üzerinde farklılaşma oluşturduğuna dikkat çekilmektedir. Bazı araştırmalarda rozet ve lider tablolarının sadece dışsal motivasyonu sağladığı ve olumsuz rekabete yol açarak öğrencilerde stres ve kaygı oluşturduğu; görevlerin zorluk seviyesinin yüksek olması ile öğrencilerin başarısızlık duygusuna kapıldığı ve bu nedenle öğrenme ve derse katılma motivasyonunun zamanla düştüğü belirlenmiştir. Bu bağlamda oyunlaştırmanın öğrencilerin içsel motivasyonunu artıracak ve kişisel özelliklerini yansıtacak oyun elemanları kullanılarak kişiselleştirilmesi, ortaya çıkabilecek riskleri önleyerek öğrencilerin potansiyel fırsatlardan üst düzeyde yararlanabilmesini sağlayacaktır. Böylece çevrimiçi öğrenmede var olan motivasyon eksikliği, sıkılma ve dersi bırakma gibi sorunların çözümü için oyunlaştırma etkili bir yöntem olabilir.

Anahtar Sözcükler: Oyunlaştırma, oyun, çevrimiçi öğrenme, literatür taraması

(343) Eğitimde yapay zekâ-makine öğrenmesi- derin öğrenme, eğitimde doğal dil işleme vb.

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Teknoloji hızla gelişmekte hayatımıza yeni fırsatlar ve kolaylıklar sunmaktadır. Son zamanlarda da teknoloji ile birlikte birçok alanda yenilikler meydana geldi ve birçok kavramlar hayatımızda yer bulmuştur. Örneğin; yapay zekâ, makine öğrenimi ve derin öğrenme teknikleri gibi. Bu çalışma, eğitim alanında yapay zekâ, makine öğrenimi ve derin öğrenme teknikleri alanına ilişkin yapılan çalışmalara odaklanmaktadır. Bu amaç doğrultusunda TR DİZİN 'de indekslenen dergilerde yayınlanan makaleler incelenmiştir. İnceleme ölçütü olarak "yapay zekâ", "doğal dil işleme", "makine öğrenimi" ve "derin öğrenme" anahtar kelimeleri kullanılmıştır. Bu ölçütlere uygun 30 makale bulunmuş ve bu makalelerden 10 tanesi araştırma amacına uygun olduğu için incelemeye dahil edilmiştir. Bu kapsamda TR dizindeki belirlenen makaleler analiz edilecektir. Analiz sonucunda elde edilen bulgular doğrultusunda sonuçlar yapılandırılacaktır. Bu doğrultuda hazırlanacak çalışma sonucunda, eğitim alanındaki yapay zekâ, makine öğrenimi ve derin öğrenme teknikleri kavramları hakkında çalışma yapacak araştırmacıların mevcut çalışmalar hakkında bilgi sahibi olmaları, yapay zekâ, makine öğrenimi ve derin öğrenme teknikleri kavramlarının eğitimdeki yerini görmeleri ve bu alanda yapılacak gelecekteki çalışmaları için farklı araştırma fikirleri sunmak adına yol gösterici nitelikte olacağı düşünülmektedir.

Anahtar Sözcükler: Yapay Zekâ, Doğal Dil İşleme, Makine Öğrenimi, Derin Öğrenme

(344) Level of Learning (LoL) based approach for Online Learning to prevent student attrition

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While online learning has its roots over forty years ago, it has been in the recent decade that online education has made rapid advances. Today, literally online learning has replaced offline learning to a large extent and with the advent of Education 4.0 , there is little doubt that soon online education will completely take over. Owing to the benefits of reduced fee, travel, logistics expenses and flexibility in schedules, online distance education is also gaining a wide popularity, with many universities offering a multitude of vocational courses as well as professional certifications. Inspite of its popularity, online distance learning has its own challenges, the primary among them being student attrition and his ability to complete the enrolled courses. Several factors contribute to this, including the lack of simulation of a 'class-room like' experience for the student, personal guidance to the student, laxity in assignment submissions resulting in missing deadlines. However, all these reasons boil down to improper tracking of the student adaptability and progress at an early stage and taking corrective actions. We introduce the concept of Level of learning (LoL) that includes the percentage of tasks completed successfully in a given time after a certain number of attempts. When the LOL fall below a threshold, the student is transferred to the next LOL, with some penalty in his percentage that correlates to his grade. This requires the instruction as well the assessment process to be designed at varied levels, considering the levels of the students. This adaptable, flexible mode of instruction and assessment tailored to meet the student's level will ensure that a student while given an opportunity to perform at a highest level, can also be allowed to continue at the next level should he fall short of expectations. This proactive strategy would certainly reduce student attrition and allow more students to complete a course without the fear of having to forgo it all together.

Keywords: Online learning, Level of Learning, Student attrition

(345) Türkiye'deki Açıköğretim Sistemlerinin Karşılaştırmalı Program ve Ders Analizi

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Türkiye'de 2024 yılı itibarı ile Açıköğretim yolu ile hizmet veren 4 Üniversite bulunmaktadır. Bu Üniversitelerin özellikle önlisans ve lisans düzeyinde birçok program sunduğu ve çok çeşitli derslere yer verildiği görülmektedir. Araştırmada, 2023-2024 öğretim yılı itibarı ile bu Üniversitelerin Açıköğretim aracılığı ile sunduğu program sayıları ve bu programların derecelerine göre dağılımı, ders sayıları, ders kredileri (AKTS) ve derslerin tekil ve/veya ortak dağılımının analizi sunulmuştur. Araştırmada, nitel araştırma yöntemlerinden biri olan doküman analizi yöntemi kullanılmış, veriler, dört üniversitenin resmi web sitelerinde yayımlanmış olan program bilgilerine dayanarak toplanmıştır. Çalışma kapsamında, ders kredilerinin dağılımı, ortak kullanılan derslerin programlara göre dağılımı, dönemlik olarak verilen ders sayılarının program ve üniversitelere göre dağılımı gibi farklı açılardan analizi yapılmıştır. Her ne kadar önlisans düzeyi en az 120 ve lisans düzeyi en az 240 kredi içerse de bu 4 Üniversitede, programların tasarımı ve derslerin kullanım şekillerinin (kredi, sayı, dağılım) farklı olduğu görülmüştür. Araştırma sonunda, bu sistemlerin seçmeli ders altyapısına geçiş sürecindeki avantaj ve dezavantajları tartışılmış, ders tanıma ve akreditasyon açısından ortaya çıkabilecek olası durumlar değerlendirilmiş; ölçme değerlendirme, ders kredilerinin belirlenmesi ve diğer standartlar açısından görüşler belirtilmiştir. Bu araştırmanın, Türkiye'de yer alan Açıköğretim Sistemlerinin program geliştirme ve izleme süreci açısından katkı sağlayacağı düşünülmektedir.

Anahtar Sözcükler: Yükseköğretim, Açık ve Uzaktan Öğrenme, Program Geliştirme, Program Değerlendirme, Doküman Analizi

(346) Reshaping learning futures: The role of flexible policies and incentives reconsidered

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This paper is the third in a series produced specifically for the ICETOL conferences and JETOL. Prior papers dealt with assuring quality in OL and digital transformation and OL within the context of the future of higher education. We now consider the important role of educational policies and incentives in shaping the future of learning. The presentation and paper (a preliminary draft will be uploaded for the conference) will highlight Western approaches to policies related to digital educational environments and online learning as well as summarizing key evaluation and research insights from these efforts and their impact over just the past few years. Special attention will be paid to the importance of both flexibility and the role that incentives can play in encouraging experimentation, calculated risk taking, and expansion of access for students. Several recent surveys of undergraduate university students conducted globally will be highlighted in terms of what students say they desire in online and virtual learning environments. Suggestions for policy makers and researchers who seek to influence their activities will be provided, drawing upon both published literature on policy making and the author's own extensive experience in ministry of education, gubernatorial, and legislative arenas at provincial (state), national, and international levels. The need for further and better research on these matters will also be mentioned.

Keywords: educational technology online learning policy incentives