Table of Contents

WRITING EFFECTIVE MULTIPLE-CHOICE QUESTIONS IN MEDICAL EDUCATION J. Reyna	1
INACCESSIBLE AND EXPENSIVE: RURAL PERSPECTIVES ON ACCESSING POST- SECONDARY EDUCATION N. Douglas, R. Allen	11
RECYCLING COMPUTERS TO CREATE A SUSTAINABLE FUTURE AND ITS IMPLICATIONS FOR EDUCATION J. Reyna, J. Hanham, J. Orlando	20
INCULCATING SCIENTIFIC LITERACY AMONG THE STUDENTS IN THE POLYTECHNIC FOUNDATION PROGRAM A. Dewanto, T.C. Tan	26
FROM MORPHO-SPLIT TO NARRATIVES OF DIGITAL NATIVES IN EFL ONLINE CLASSES N. Lazebna	36
MOOCS AND FOREIGN LANGUAGE TEACHING: THE CASE OF SPANISH Z. Vasiljevic	41
TERTIARY STUDENTS' ATTITUDES TOWARDS POST-SECONDARY EDUCATION FOR THE AUTISTICS M.K. Puteri Zarina, M.Y. Mohd Yusop, S. Palanible, N.S. Abdul Rani, S.I. Safie, C. Mason	42
MINI-GAMES FOR ENTREPRENEURSHIP IN CONSTRUCTION H. Hummel	51
THE EFFECT OF SELF-REGULATED LEARNING IN ONLINE PROFESSIONAL TRAINING B. Gimbert, D. Cristol	55
PUPILS' AUTONOMY, COMPETENCE AND RELATEDNESS AS DETERMINANTS OF ONLINE LEARNING ENGAGEMENT DURING THE COVID-19 PANDEMIC C. Ugwuanyi, C. Okeke	56
PERSONALIZED LEARNING AND ETHICS OF CARE: COMPASSIONATE EDUCATION IN ACTION R. Tobin	65
A NEW APPROACH FOR TEACHING PHASE-TYPE DISTRIBUTIONS THROUGH SHINY C. Acal, E.M. Contreras-Siles, J.E. Ruiz-Castro	66
DESIGNING ON THE GO: DEVELOPING A PERSONALIZED CURRICULUM FOR A DOCTORAL LEVEL COURSE Y. Piller, R. Dorough	72
INVESTIGATING THE LINK BETWEEN STUDENT GRADES AND THE USE OF BLACKBOARD IN MINING ENGINEERING AND MINE SURVEYING STUDIES M. Mpanza	78
CLIMBING THE DIGITAL LADDER- EMBRACING DIGITAL TECHNOLOGIES AND MEETING DIGITAL DEMANDS OF THE LIBRARY PATRONS J. Rajić	89
DIGITAL NARRATIVE DURING THE PANDEMIC: REVIVAL OF ANTIQUATED MACHINES IN FUNCTIONAL SETTINGS FOR INDUSTRIAL EDUCATION S. Tanabashi	94
THE STRATEGY AND EFFECT OF USING A CLASSROOM INTERACTIVE RESPONSE SYSTEM BASED ON A MOBILE LEARNING PLATFORM IN A SYNCHRONOUS ONLINE CLASS G. Zhang, J. Han, Q. Chen	98
@APARTE: THE USE OF INSTAGRAM TO INCREASE STUDENTS' COMPETENCE AND SELF-EFFICACY IN USING APA GUIDELINES S. Collado, R. Rodríguez-Rey, C. Fidalgo, M. Sorrel, M. Sánchez-Izquierdo Alonso, E. Santaolalla, H. Garrido-Hernansaiz	105
SUPPORTING INTERDISCIPLINARITY, DIVERSITY AND INCLUSION IN CYBERSECURITY I. Hamburg	106
CHALLENGES WHEN IDENTIFYING TEACHERS' DIGITAL COMPETENCE N. Bergdahl	112

THE GRAPHIC-MUSIC ALPHABET TO IMPROVE READING-WRITING SKILLS IN STUDENTS WITH SPECIFIC LEARNING DISORDERS A. Di Paolo, M.D. Todino	119
HOW DATA-DRIVEN DECISION-MAKING CAN BE OPTIMIZED BY LINKING CRM AND ERP DATA - A TEACHING CASE S. Ganahl, C. Ploder, T. Spiess, T. Dilger, R. Bernsteiner	127
CULTURAL INTELLIGENCE AS A SKILL FOR THE FUTURE OF WORK T.C. Pun, T. Spiess, S. Schlögl, C. Ploder	133
WAKE UP FOR THE WAKELET! USING E-PORTFOLIO IN A JIGSAW CLASSROOM IN THE COLLEGE SETTING R. Stolyar	142
GUIDING AND PROMOTING RESEARCH SKILLS IN STUDENTS OF CHEMISTRY BASED ON THE USE OF A RESEARCH PROJECT CANVAS TEMPLATE M.M. Contreras, A. Galán-Martín, I. Gómez-Cruz, E. Castro	143
USING THE BUSINESS MODEL CANVAS AS A METHODOLOGICAL APPROACH PROMOTING INNOVATIVE AND ENTREPRENEURIAL SPIRIT AMONG THE STUDENTS OF THE CHEMISTRY DEGREE M.M. Contreras, F. Espínola, I. Romero-Pulido, E. Castro	148
GDPR AND EDUCATION: AN APPROACH FOR E-LEARNING IN GREEK SCHOOLS A. Daoultzoglou	154
ENGAGING CONSCIOUS DESIGN PRINCIPLES IN A CURRICULUM TO IMPROVE COLLABORATION AND COMMUNICATION PROFICIENCIES C. Blue	164
LOCKDOWNS, REMOTE DELIVERY & DIGITAL INNOVATION: ONE LEADER'S REFLECTION ON ACADEMIC CONTINUITY THROUGH COVID19 IN THE HEALTH SCIENCES J.P. Egan	170
FACTORS INFLUENCING IMPLEMENTATION OF SIMULATION IN NURSING AND MIDWIFERY EDUCATION IN MALAWI G. Mwalabu, M. Msiska, I. Tjoflåt, P. Mapulanga, A. Msosa	175
LEVERAGING CONVENTIONAL CS PROBLEMS FOR BLENDED LEARNING IN ALGORITHMS LAB: AN OPTION FOR EXPERIMENTAL LEARNING V.K. Iyer, K. Seshadri, R. Mohan	181
DIDACTIC MATERIALS AND MATHEMATICS LEARNING IN THE 1ST CYCLE OF BASIC EDUCATION M.F. Caldeira, M.F. Sampaio	190
TRANSFORMING INTEGRATIVE MAKER EDUCATION FOR STEM LEARNING V. Chambers, K. York	199
CURRICULAR GOALS RELATING TO DIGITAL LITERACY AND DIGITAL COMPETENCES IN UPPER SECONDARY SCHOOL IN DENMARK A. Svendsen, J.T. Svendsen	200
VIABILITY OF VOICE USER INTERFACES IN SECOND LANGUAGE LEARNING AND REPETITIVE CONVERSATIONAL TASKS M. Garofalo, C. Illescas Duque, K. Gaugler, C. Matheus	201
BRIDGING THE DIGITAL AND PHYSICAL WORLDS: IMPLICIT GRAMMAR INSTRUCTION AND QR CODES M. Goode, M. Noeldechen, K. Gaugler, C. Matheus	210
BLENDED COURSES - INDISPENSABILITY OF OUR TIMES, PASSING FAD OR PERMANENT, ESSENTIAL ELEMENT OF MODERN HIGHER EDUCATION? D.A. Krawczyk, B. Biernacka, D. Gawryluk	216
"PENSAR LA MATEMÁTICA I" PROJECT A.J. Almeida Rodríguez, J. Harjani Saúco, M.B. López Brito	220
DESIGNING INTERPRETIVE TRAILS TO ENHANCE CULTURAL HERITAGE ON THE UNIVERSITY OF THE BALEARIC ISLANDS CAMPUS (UIB) M. Forteza Oliver, L. Melis Gomila, J. Andreu Galmés, M. Novo Malvárez	226
PREPAREDNESS OF THE EDUCATION SYSTEM IN PANDEMIC CRISIS TIME: IDENTIFYING ENABLERS AND CHALLENGES TO RESPOND TO DISABLED STUDENTS' AND THEIR FAMILIES' NEEDS	236
A. Vlachou, S. Kalaitzi, L. Tsermidou, A. Toulia, T. Papazoglou, A. Fyssa, F. Papazis	

INTERCULTURAL COMMUNICATION IN ENGLISH FOR TOURISM: EFFECTIVE PROFESSIONAL PERFORMANCE OF MULTIPLE TASKS WITHIN THE TOURISM SECTOR G. Gali	238
PSYCHOLOGICAL ASPECTS IN DEVELOPMENT AND EDUCATION OF GIFTED CHILDREN: PROBLEMS AND THEIR CAUSES G. Gali	242
THE LEGAL FRAMEWORK OF BIOLOGY: INTEGRATION OF THE LEGAL ASPECTS AND REGULATIONS OF HEALTH SCIENCE RESEARCH AND ENVIRONMENTAL AND MANAGEMENT STUDIES S. Tejada Gavela, A. Sureda Gomila, L. Gil Vives, G. Mateu Vicens, S.C. Esteban Valdés, D. Moranta Mesquida, P. Ferriol Buñola, S. Pinya Fernández	246
DOES THE CONTENT MATTER IN A VIRTUAL EXCHANGE? ENGLISH AS A SECOND LANGUAGE (ESL) STUDENTS IN NEW YORK CITY MEET ESL STUDENT TEACHERS IN TEL AVIV TO EXPLORE MULTILINGUALISM M. Yochanna, S. Gokcora	252
ADD_ON_SKILLS AS AN EXAMPLE OF MODERN INTERDISCIPLINARY COURSE INCREASING SKILLS OF ENGINEERS D.A. Krawczyk, B. Biernacka, A. Tyliene	253
ONLINE EDUCATION DURING COVID 19 INDUCED LOCKDOWN: ISSUES AND CHALLENGES P. Pooja	260
CONTEXT-BASED LEARNING INSTRUCTIONAL APPROACHES USING MULTI- CONCEPT LINKED PROBLEMS IN A GENERAL CHEMISTRY COURSE A. Garcés Osado, L.F. Sánchez-Barba Merlo, D. Pérez Quintanilla, M.A. González González, G. Martínez García	266
STUDY OF THE IMPACT OF THE COVID 19 EPIDEMIC ON THE DEVELOPMENT OF SOFT AND HARD SKILLS IN TECHNICAL HIGHER EDUCATION STUDENTS WHO PARTICIPATE IN RESEARCH, DEVELOPMENT, AND INNOVATION PROJECTS IN FACTORIES AT THE INSTITUTO FEDERAL DO AMAZONAS D. Câmara Sales	276
INFLUENCE OF MATHEMATICS ANXIETY AND COMPUTER SELF-EFFICACY ON STUDENTS' READINESS FOR UTILIZATION OF COMPUTERS FOR LEARNING ALGEBRA IN ABUJA, NIGERIA E.K. Balla	285
AN INFOVIS ONLINE WEB APPLICATION FOR GENDER ASPECTS OF EQUITY AND INCLUSION IN HIGHER EDUCATION A. Poulopoulos, E. Papaioannou, C. Kaklamanis	292
THOUGHT EXPERIMENTS FROM EARLY COSMOLOGY FOR STUDENTS J. Novotný, J. Svobodova	302
NO PRESSURE, JUST LEARNING HAPPILY: THIRD-YEAR PHARMACY STUDENT PERCEPTIONS ON A COLLABORATIVE ONLINE PHARMACOGNOSY LABORATORY A.S. Abdul Rahim	307
EMBRACING DIGITAL 3D TECHNOLOGY IN SUSTAINABLE FASHION DESIGN EDUCATION X. Lin, M.O. Ingaramo	315
THINKING DIFFERENTIALLY - FROM A COURSE TO AN ENTRANCE EXAM, CASE MASTER'S DEGREE IN BEAUTY AND COSMETICS M.A. Poutanen	321
STAFF REPRESENTATIVE ON BOARD OF UNIVERSITY OF APPLIED SCIENCES – HOW TO DEFEND EDUCATION AND INTERESTS OF UNIVERSITY COMMUNITY J. Linna	327
QUICK-SET JELLY VERSUS SLOW-COOKING JAM: FACILITATING QUICK-SET GROUPS IN AN ACCELERATED ACADEMIC CALENDAR L. Mandel	331
ENROLLMENT AND SCHOOL DROPOUT DUE TO THE PANDEMIC, IN MEXICO M. Morfin Otero, H.M. Rodríguez Gómez, V. Peña Guzmán, C.A. González Quintanilla	332
INTERESTS OF DIGITAL NATIVES IN LEARNING BUSINESS INFORMATICS: WHAT DIFFERENCE DO 5 YEARS MAKE? D. Suša Vugec, L. Milanović Glavan, J. Pivar	338
EMPOWERING TEACHER LIBRARIANS TO SUPPORT STEM EDUCATION M. Johnston	347

STUDENTS' EXPERIENCES OF WORKING SKILLS BY ME&MYCITY PROJECT A. Ojala	348
SERVICE-LEARNING PROJECT: RAISING AWARENESS FOR AN EFFICIENT CITY WITHOUT NOISE P. Aguilera Benito, C. Piña Ramírez, M.A. Vidales Barriguete, D. Caballol Bartolomé, J. García	356
Múñoz, M. Morales-Segura, A. Marín Palma, C. Porras Amores, F. Gil Carrillo FAST FASHION AND FAST LEARNING: DIFFERENT CONTEXTS BUT SIMILAR	357
MEANINGS B. Andres, F. Sempere-Ripoll	
SIMULATION OF A MANUFACTURING COMPANY FOR THE APPLICATION OF METHODS AND TOOLS IN THE AREA OF INDUSTRIAL ENGINEERING B. Andres, F. Sempere-Ripoll	361
CHILDREN LEARN THEIR RIGHTS A. Papadimitriou, D. Mprella	366
PERSONAL ATTENTION PROGRAM TO UNIVERSITY STUDENTS WITH SPECIAL EDUCATIONAL NEEDS M.J.M. Alférez, B. Clares Naveros, A. Conejo García, O. Cruz López, E. García Fernández, R.J. Giménez Martínez, M.C. González García, E. González Muñoz, J.M González Pérez, J.A. González Vera, A. Molinero García, A.I. Del Moral García, C. Monteagudo Sánchez, R. Navarrete Casas, F. Ocaña Peinado, J.M. Paredes Martínez, M. Romero Pérez, B. Rubio Ruiz, M.J. Ruedas Rama, M. Sánchez Polo, J. Valverde Pozo, R. Castilla Ríos, C.F. García Jiménez, A. Lozano Ortega, A. Martínez Avilés, A. González Muñoz, L. González Robles, J. Sepúlveda Villodres, E.M. Talavera Rodríguez	367
PLAN FOR THE IMPROVEMENT OF PROFESSIONAL ORIENTATION AT THE UNIVERSITY	374
M.J.M. Alférez, B. Clares Naveros, A. Conejo García, O. Cruz López, E. García Fernández, R.J. Giménez Martínez, M.C. González García, J.M. González Pérez, J.A. González Vera, A. Molinero García, A.I. Del Moral García, C. Monteagudo Sánchez, R. Navarrete Casas, F. Ocaña Peinado, J.M. Paredes Martínez, M. Romero Pérez, B. Rubio Ruiz, M.J. Ruedas Rama, M. Sánchez Polo, E.M. Talavera Rodríguez, J. Valverde Pozo, R. Castilla Ríos, C.F. García Jiménez, A. Lozano Ortega, A. Martínez Avilés, A. González Muñoz, L. González Robles, J. Sepúlveda Villodres, E. González Muñoz	
INTEREST AND FAMILIARITY IN SCIENCE IN THE STAGES OF TEACHER TRAINING E. Ortega Torres, E. Gamero	380
VISUALIZING MUSIC CONCEPTS J. Oliver, B. García Zapiráin	381
COMPETENCE DEVELOPMENT AMONG WOMEN RESEARCHERS IN ACADEMIA C. Gjellebæk, I. Femdal, V.A. Grøndahl, I.M. Tjøstolvsen, L.A. Del Busso	388
PLANNING AND IMPLEMENTING COLLABORATIVE AND DIFFERENTIATED INSTRUCTION F. Dubé, M. Gareau, S. Lanoix, M.F. Gendron	396
OPEN EDUCATIONAL RESOURCES FOR MATHEMATICS IN HIGHER EDUCATION A.P. Lopes, F. Soares	397
COMPARISON OF EDUCATIONAL CURRICULA OF ELEMENTARY SCHOOL MATHEMATICS: CASE OF THE REPUBLIC OF CROATIA R. Soldo	405
THE CORRELATION BETWEEN SELF-EFFICACY AND ACADEMIC ACHIEVEMENT IN MATHEMATICS TEACHING R. Soldo	410
KEEPING STUDENTS ENGAGED THROUGH GAMIFICATION I.M. Velez Osorio	414
FROM FACE-TO-FACE TO REMOTE LEARNING AND BACK: EMBRACING ACTIVE LEARNING I. Sarieva	422
LANGUAGE LEARNING AND DISTRIBUTED CLASSROOM: PERSPECTIVES AND STRATEGIES FOR THE POST-PANDEMIC ERA T. Sbardella, R. Dolci	429
PHARMACY STUDENTS' PERCEPTIONS OF OPEN AND DISTANCE LEARNING (ODL) ASSESSMENTS DURING COVID-19 LOCKDOWNS S. Jamil, A.S. Abdul Rahim	437
THE COMPARISON OF THE EDUCATIONAL STYLE IMPLEMENTATIONS BY EDUCATORS IN THE SCHOOL CHILDREN'S CLUBS IN TERMS OF SELECTED VARIABLES	444
M Novocký S Dulovics Sámelová S Kollárová Š Petrík	

ENHANCING A TECHNICAL UNIVERSITY STUDENTS' SPEAKING SKILLS THROUGH VARIOUS SCAFFOLDING METHODS: A PRACTICAL STUDY ON RUSSIAN NATIVE SPEAKERS A. Boltaeva, I. Suvorova	454
SEMINARS IN ENGLISH IN A SUBJECT OF THE MASTER'S DEGREE IN INDUSTRIAL ENGINEERING AT THE MIGUEL HERNÁNDEZ UNIVERSITY OF ELCHE P. Martínez	463
THE IMPACT OF AN INTERDISCIPLINARY, TOOL-BASED COURSE ON THE MOTIVATION OF TEACHER TRAINING STUDENTS I. Olahne Teglasi	468
TRANSFERABLE PROCESSES FOR INCREASING DIVERSITY IN HIGHER EDUCATION INSTITUTES AND RESEARCH ENVIRONMENTS IN PAKISTAN A. Woodcock, S. Gardner, A.M. Nienaber, U. Naz	477
RESEARCHERS PERCEPTIONS OF ACHIEVING IMPACT AND STAKEHOLDER ENGAGEMENT IN PAKISTAN A. Woodcock, S. Gardner, A.M. Nienaber, U. Naz	487
DIFFERENTIATION, PERSONALIZATION AND THE FLIPPED CLASSROOM APPROACH M. Loizou	496
USING LITERATURE TO DEVELOP CRITICAL THINKING AND CREATIVITY I. Cimermanova	497
THE VIKINGS ENHANCEMENT STEM INNOVATION AND COLLABORATION (VESTEMIC) MODEL: ENHANCING UNDERGRADUATE STEM EXPERIENCE AND STUDENT SUCCESS K. Rawat, G. Payne	503
A SOFTWARE FOR IMPROVED ACCESSIBILITY OF VISUAL CONTENT IN CLASS F. Gomez-Donoso, F. Escalona, B. Dominguez-Dager, M. Pina-Navarro, F. Morillas-Espejo, M. Cazorla	504
QASOR: INTRODUCING A QUESTION-ANSWERING SOCIAL ROBOT IN CLASS A. Belmonte-Baeza, F. Gomez-Donoso, F. Escalona, R. Roig-Vila, R. Martinez-Roig, M. Cazorla	510
PREPARING STUDENTS FOR THE FUTURE: INTRODUCING CO-CREATION AS LEARNING STRATEGY A. Ramon-Aribau, J.A. Merchán-Baeza, C. Borralleras-Andreu, E. Minobes-Molina, S. Grau-Carrión	516
CO-CREATING: DESIGNING MULTI-DISCIPLINARY SOLUTIONS WITH FAMILY CAREGIVERS OF PERSONS WITH ALZHEIMER'S AND BRINGING THE THIRD AND PRIVATE SECTOR INTO THE CLASSROOMS S. Grau-Carrión, A. Ramon-Aribau, J.A. Merchán-Baeza, E. Minobes-Molina, C. Borralleras-Andreu	517
BLEND THE LEARNING: BLENDING TECHNOLOGY AND TRADITION FOR BUSINESS STUDENTS IN HIGHER EDUCATION L. Zizka, G. Probst	518
THE NEED OF IMPLEMENTING SKILLS OF THE 21ST CENTURY INTO TEACHER EDUCATION Z. Strakova	526
CASE STUDY IN DIGITAL TRANSFORMATION COLLABORATION T. Olson, P. Johnson	533
TO BE OR NOT TO BE CREATIVE: FOREIGN LANGUAGE TEACHERS AS LEARNING MATERIALS DESIGNERS I. Cimermanova	537
FROM SCORING TO ASSESSMENT IN VIRTUAL COURSES, COMPARISON BETWEEN DEEP LEARNING AND MACHINE LEARNING O. Cuéllar Rojas, M. Hincapié Montoya, M. Contero	542
APPLICATION OF A PREDICTIVE MODEL CREATED WITH DEEP LEARNING TO INCREASE STUDENT RETENTION: A COMPARATIVE STUDY O. Cuéllar Rojas, M. Hincapié Montoya, M. Contero	553
ICT AS A DYNAMIZING ELEMENT OF SATISFACTION IN UNIVERSITY UNDERGRADUATE TEACHING A. Marín García, I. Gil Saura, M.E. Ruiz Molina, R. Gil Saura	561
UNIVERSITY STUDENTS SEGMENTATION BASED ON PERCEPTION TOWARDS ICT AND SATISFACTION A. Marín García, I. Gil Saura, M.F., Ruiz Molina, R. Gil Saura	562

"SHELTERED": A HYBRID PRIVACY-PRESERVING APPLICATION FOR SECURE VIDEO CALLS OVER IP K. Tepetes, E. Papaioannou, C. Kaklamanis	563
KNOWLEDGE AND SKILLS OF MIGRANT SPORTS PROFESSIONALS IN SPAIN V. Esguerra, A.L. Esguerra, R. Solinas Of Mine Vaganti	574
RECONNECT A WORKSHOP TO PROMOTE HEALTHY INTERNET USE AND POSITIVELY AFFECT STUDENT WELLBEING AND ACADEMIC PERFORMANCE O. O'Brien, C. Murphy	582
ACTIONS OF STRUCTURES FROM THE ENERGY SECTOR IN CONDITIONS OF A CYBERATTACK C. Kostadinov, D. Dimitrov	591
STRUCTURED INTERACTIVE LEARNING MATERIALS AND STUDENT ENGAGEMENT IN A FLIPPED LEARNING EXPERIENCE F. Soares, A.P. Lopes	597
ADAPT@: A MULTILINGUAL AND MULTIMODAL ONLINE WEB APPLICATION TO PERSONALIZE TEXTUAL INFORMATION PROCESSING AND VISUALIZATION E. Lloret, B. Méndez, P. Moreda, M. Palomar	605
CONCEPT MAPS AS INCLUSIVE LEARNING TOOLS. THE VISUAL DESIGN PERSPECTIVE L. Bollini	615
INSTRUCTION FOR TRIVIA, CUCCUMELLA EDITION. TEACHING COMMUNICATION AND INTERACTION DESIGN IN A BACHELOR DEGREE'S CURRICULUM IN ART L. Bollini	621
EVALUATION OF THE IMPACT OF THE TRANSITION FROM FACE-TO-FACE EDUCATION TO EMERGENCY REMOTE EDUCATION IN A TECHNOLOGICAL TRAINING PROGRAM IN THE STATE OF AMAZONAS D. Pompeu Noronha Pontes, A. Mota, S. Marques	628
DOES THE SHAPE MATTER? COMPARING TWO WAYS OF STRUCTURING AN ONLINE LANGUAGE COURSE T. Ginzburg, L. Daniela	634
THE STORYLINE APPROACH AS A LIFELONG LEARNING TRAINING PROGRAM I. Iliopoulou	641
SEMANTIC RECOMMENDER SYSTEM USING MACHINE LEARNING FOR EDUCATION B. Mbaye	645
LIFELONG LEARNING METHODOLOGY TO ENCOURAGE SUSTAINABILITY IN CIVIL ENGINEERING STUDIES E.M. García-Del-Toro, S. García-Salgado, M.A. Quijano, M.I. Más-López	651
VIRTUAL LABORATORIES AS AN EDUCATIONAL TOOL TO PROMOTE THE SDGS OF THE 2030 AGENDA	657
E.M. García-Del-Toro, M.I. Más-López, M.A. Quijano, S. García Salgado FROM THE PROJECT SANDBOX TO THE REAL WORLD – WORK-INTEGRATED PROFESSIONAL DEVELOPMENT FOR BANK AND INSURANCE COMPANIES P. Mozelius, M. Håkansson Lindqvist	667
STUDY ON AI IN EDUCATION POLICIES V. Slavov, Y. Yan	673
DESIGNING A LEARNING FACTORY FOR TEACHING COMPLEX INTEGRATION OF TECHNOLOGIES THAT SUPPORT INDUSTRY 4.0 T. Wanyama, B. Baetz	681
STUDENT MOTIVATIONS FOR ATTENDING UNIVERSITY AND ACADEMIC ADJUSTMENT IN FIRST-YEAR UNIVERSITY STUDENTS C. Truta, A.M. Cazan, M.M. Stan, C.I. Maican	688
DIFFICULTY OF BEBRAS TASKS FOR UPPER SECONDARY BLIND STUDENTS M. Čujdíková, Ľ. Jašková, M. Stankovičová	696
DEVELOPING A MENTORING SCHEME FOR JUNIOR WOMEN RESEARCHERS IN ACADEMIA: BEST PRACTICE RECOMMENDATIONS C. Gjellebæk, I. Femdal, V.A. Grøndahl, I.M. Tjøstolvsen, L.A. Del Busso	706
PERSONAL FACTORS AS PREDICTORS OF ACADEMIC ADJUSTMENT IN FIRST- YEAR UNIVERSITY STUDENTS M.M. Stan, C.I. Maican, C. Truta, A.M. Cazan	707
1711111 OPPORT CIT 1711HCMIN CO 1 1 HIM 11111 CHAMIL	

LET'S ESCAPE! THE USE OF A DIGITAL ESCAPE ROOM TO INCREASE STUDENT'S MOTIVATION AND LEARNING ON KINEMATICS CONCEPTS E. Martínez, V. Carbonell, J. Álvarez, M. Flórez, E. Montoya	715
MASTERING 9 CONVERSATIONS, SUPPORTING REFUGEE ENTREPRENEURS TO EXTEND THEIR NETWORK AND TELL THEIR BUSINESS STORY T. Hjeltnes	716
LEARNING THE RELATION BETWEEN LANGUAGE, COMMUNICATION AND OUR BRAIN THROUGH RESEARCH PROJECTS IN COLLABORATION WITH HIGH-SCHOOL STUDENTS V.J. López Madrona, D. Schön, C. Chaux, C. Bénar	725
TEACHING AND DEVELOPING SCIENTIFIC RESEARCH PROJECTS WITH HIGH- SCHOOL STUDENTS THROUGH EXPERIMENTAL PROPOSALS V.J. López-Madrona, G. Rueda Fernández, D. Moratal	729
AN INTEGRATED LEARNING AND ASSESSMENT ENVIRONMENT FOR STEM COURSES BASED ON JUPYTERHUB P. Salhofer	733
MULTIDISCIPLINARY CONTINUING EDUCATION FOR EARLY CHILDHOOD CARE: TRAINING COOPERATION PROJECT WITH EL SALVADOR M.M. Bernabé Villodre, V. Martínez-Bello, M. Aguilar-Rodríguez, M. Zarzoso-Muñoz, B. Tarazona-Álvarez, Y. Cabrera García-Ochoa, H. Vega-Perona, N. Sempere-Rubio, R. Faubel-Cava	741
USING FACEBOOK AT UNIVERSITY: IMPACT ON STUDENTS' MOTIVATION TOWARDS ONLINE TEACHING DURING COVID-19 PANDEMIC C. Fidalgo, S. Collado, G. Lopez-Crespo, M. Mendez-Lopez	750
ONTOSEMIOTIC ANALYSIS ON PROBLEM-SOLVING AND PROBLEM-POSING M. Burgos, N. Tizón-Escamilla, J. Chaverri	751
DIDACTICAL SUITABILITY ANALYSIS OF CURRICULAR MATERIALS IN PROBABILITY. IMPLICATIONS FOR TEACHER TRAINING M. Burgos, B. Cotrado, P. Beltrán-Pellicer	759
A SUCCESSFUL COLLABORATION BETWEEN INDUSTRY AND UNIVERSITY: ICOXTREM J.A. Aledo, J.A. Gámez, A. Rosete, E. Sánchez-Muliterno	766
COLLABORATIVE WORK IN THE INTERNATIONAL PARTNERSHIP ECOSYSTEM A.M. Pires, A.C. Sousa	770
SHORT VIDEOS AS AN EDUCATIONAL TOOL TO ENHANCE LEARNING J.A. Aledo, H. Macià	775
COVID LOCKDOWN SPIKED INTEREST IN DENTAL SPECIALTY EDUCATIONAL BLOGS J. Wang, J. Botros, M. Padilla	780
EXAMINING THE ROLE OF EMOTIONS IN ONLINE HEALTH INFORMATION- SEEKING BEHAVIOR (OHISB): THEIR RELATIONSHIP WITH HEALTH DISPARITIES, EHEALTH LITERACY, AND GENDER E. Malinaki, A. Gardikiotis	787
GAMIFICATION AND DEVELOPMENT OF VIRTUAL CONTENT FOR CLASSROOM DYNAMISATION AND LEARNING IMPROVEMENT AT UNIVERSITY A. Garcia-Alonso, I. Mateos-Aparicio, M.L. Pérez-Rodríguez, M. Sánchez-Paniagua, E. Rodriguez-Rodriguez, M. Moreno-Guzmán, J. Sanz Landaluce, C. Rueda, A. Gallo, R. De la Peña-Armada	788
ACTIVITIES IN INNOVATIVE EDUCATION AS A FACTOR OF COMPETITIVENESS FOR TECHNICAL UNIVERSITY GRADUATES M. Kuperová, M. Zatrochová	792
DEVELOPING THE GAMIFICATION APPROACH FOR STEM LEARNING M. Zagar, S. Zilora	797
LANGUAGE IN PRESCHOOLERS. CAN THE DIDACTIC GAME BE A TOOL THROUGH WHICH LANGUAGE CAN BE DEVELOPED IN PRESCHOOLERS? K.M. Barth, M.C. Florescu, C.C. Pascariu	803
WHICH PROMOTES LEARNING SUCCESS AND ACCEPTANCE BETTER? EXPERIMENTAL COMPARISON BETWEEN AN INTELLIGENT AND A PASSIVE ONLINE LEARNING ENVIRONMENT J. Voermanek, A. Schulz	809
AMBIENT LEARNING SPACES: THE ROLE OF DISTRIBUTED KNOWLEDGE MEDIA MANAGEMENT SYSTEMS FOR COMPUTER-SUPPORTED TEACHING AND LEARNING M. Herczeg	820
171. 110/0403	

DEVELOPING AND IMPLEMENTING THE CURRICULUM FOR A DEGREE IN GEOSPATIAL SURVEYING TO MEET THE REQUIREMENT OF STUDENTS AND INDUSTRY - A CASE STUDY R. Hayden, A. Martin	831
AUTO-GENERATION OF PROGRAMMING EXERCISES FOR EDUCATION OF MPI AND AVX PARALLEL PROGRAMMING A. Wakatani, T. Maeda	841
IMPROVING THE EFFECTIVENESS OF HEALTH EDUCATION OF ROMANY PUPILS FROM A SOCIALLY DISADVANTAGED ENVIRONMENT J. Liba, P. Mirdalikova	850
SOCIAL INFLUENCE OF GAME-BASED LEARNING AND STUDENTS' ACADEMIC PERFORMANCE	859
L.M. Marín-Vinuesa, M.P. Portillo-Tarragona, S. Scarpellini, M. Marco-Fondevila, A. Aranda-Usón	
ENHANCING MOTIVATION AND CREATIVITY IN THE WRITING OF PRIMARY SCHOOL STUDENTS THROUGH SLAM WRITING WORKSHOPS IN HAÏTI A. Boultif, C. Ouellet, P.J. Romain	865
INCUBATING UNIVERSITY LEARNING OUTCOMES VIA EXTRA-CURRICULAR ENGAGEMENT P.B. Kanduboda	866
DEVELOPING USEFUL WORKFLOWS TO TEACH QUANTITATIVE METHODS TO SOCIAL SCIENCES STUDENTS F. Salas-Molina	867
THE IMPACT OF ONLINE TEACHING ON FACULTY TEACHERS DURING THE COVID 19 PANDEMIC S. Bračun	873
SPECIFICS OF THE EDUCATION AND TRAINING CENTRE OF THE MEDICAL RESCUE SERVICE OF THE SOUTH BOHEMIAN REGION S. Kavan, Z. Freitinger-Skalicka, L. Michalcova, S. Strnad	882
EDUCATION IN SAFETY IN RELATION TO THE FRAMEWORK EDUCATION PROGRAMME IN THE CZECH REPUBLIC S. Kavan, J. Dusek	888
EDUCATIONAL AUTONOMY IN THE MODERN PROJECT ACTIVITIES OF STUDENTS S. Khusainova, E. Palekha	896
THE CONCEPT OF INFORMATION AND COMMUNICATION SECURITY IN THE NEW EDUCATIONAL ONLINE ENVIRONMENT E. Palekha, S. Khusainova, Z. Makhmutov	902
DSGAME KIDS: LEARNING DATA SCIENCE PROJECTS THROUGH A STORYTELLING BOARD GAME	908
A. Fernández-Isabel, I. Martín de Diego, M. Cuesta, C. Lancho, J. M. Moguerza	
STRATEGIC USAGE OF SOCIAL MEDIA: CAN WE MONITOR ATTITUDES? J. Villagrasa, C. Donaldson, C. López	918
LAMBDA FUNCTION IN EXCEL IN RESPONSE TO CHALLENGES OF NONPROGRAMMERS IN MODERN CORPORATE PRACTICE P. Lasak, M. Králová	931
APPROACHING ATONAL-MUSIC ANALYSIS THROUGH COMPUTER-AIDED STRATEGIES: TWO REPORTS FROM UNIVERSITY STUDENTS' DATA J.L. Besada	938
HOW TO WIND THE STRATEGIC CLOCK: A BEST PRACTICE EXAMPLE SHOWING THE DYNAMIC PROCESS THAT UNDERLIES J. Villagrasa, F. Sánchez, C. Donaldson	943
SUSTAINABLE SCHOOL IMPROVEMENT: THE INTERRELATED DRIVING FORCES M. Osman	956
FORMATIVE ASSESSMENT TECHNIQUES SUPPORTING SCIENCE CONCEPTUAL LEARNING K. Szarka, B. Borovicza	957
A REVIEW OF DIAGNOSTIC ASSESSMENT TOOLS USED IN STUDIES TO UNCOVER THE MISCONCEPTIONS IN SCIENCE EDUCATION B. Borovicza, K. Szarka	967
THE IMPORTANCE OF SAFETY EDUCATION FOR HOSPITAL STAFF I. Michalcová Š. Kavan, 7. Freitinger-Skalicka, Š. Strnad	974

ENABLING LABOUR MARKET TRANSITION BY MICRO LEARNING-INSPIRED COMPETENCY DEVELOPMENT: AN EXPLORATIVE CASE STUDY OF UNDERSTANDING ONLINE TEACHING PRACTICES L. Gottschling-Knudsen, M.H. Dahm	980
"DIGITAL ACCELERATOR" PROGRAM FOR SUPPORTING THE INTEGRATION OF DIGITAL TECHNOLOGY IN ESTONIA P. Luik, K. Požogina	990
EVALUATION OF AN INNOVATIVE VIRTUAL ESCAPE ROOM PILOT ACTIVITY TO ENHANCE STUDENT LEARNING EXPERIENCE IN VETERINARY PHARMACOLOGY L.A. Olivos-Oré, M.V. Barahona Gomariz, E. Jiménez Burgueño, C. Llorente Sáez, F. Ortega de la O, M.R. Gómez Villafuertes, J. Serrano López, E. García Delicado, R. Martín Herranz, A. García Barrios, S. Santander Ballestín, M.J. Luesma Bartolomé, S.W. Calderón Ruiz, L. Paniagua Herranz, B. Pérez Sánchez, N. Ramírez Vicente, M.J. Muelas González, M. Arribas-Blázquez	1000
AN ESCAPE ROOM AS AN IMPLEMENTATION OF GAMIFICATION MATERIAL FOR LEARNING PHARMACOLOGY M. Arribas-Blázquez, M.V. Barahona Gomariz, E. Jiménez Burgueño, C. Llorente Sáez, F. Ortega de la O, M.R. Gómez Villafuertes, J. Serrano López, E. García Delicado, R. Martín Herranz, A. García Barrios, S. Santander Ballestín, M.J. Luesma Bartolomé, S.W. Calderón Ruiz, L. Paniagua Herranz, B. Pérez Sánchez, N. Ramírez Vicente, M.J. Muelas González, L.A. Olivos-Oré	1007
KEEPING STUDENTS ENGAGED: LESSONS FROM THE PANDEMIC A. Fernandez, G. Shaw	1013
THE IMPORTANCE OF TRAINING AND EDUCATION OF POLICE OFFICERS IN INTERCULTURAL COMMUNICATION AND WORKING WITH MINORITIES S. Strnad, Z. Freitinger-Skalicka, L. Michalcova, S. Kavan	1018
RESULTS OF A SERVICE-LEARNING PROJECT FOCUSED ON MEDICINE INFORMATION IN HIGH SCHOOL STUDENTS A. Bocanegra, A. Garcimartín, A. García-Aguilar, L.M. Bedoya, J.A. Guerra, J.J. Merino, R. Redondo-Castillejo, M. Hernández Martín, I. Ureña-Vacas, F.J. Manzano-Lista, E. González-Burgos	1028
PHARMACOLOGY VIDEOS AS A LEARNING TOOL TO PROMOTE ACTIVE LEARNING AND KNOWLEDGE TRANSFER IN UNIVERSITY STUDENTS A. García-Aguilar, A. Bocanegra, E. González-Burgos, L. García-García, M.S. Fernández-Alfonso, I. Ureña-Vacas, M. Hernández-Martín, R. Redondo-Castillejo, F.J. Manzano-Lista, A. Garcimartín	1034
"OUR SUSTAINABLE SCHOOL GARDEN", A STORYLINE APPROACH DURING THE COVID19 PANDEMIC S. Petrogiannou	1041
VERIFICATION OF THE INTER-RATER RELIABILITY IN THE NATIONAL UNIVERSITY CORPORATION EVALUATION IN JAPAN S. Shibui, K. Mori, M. Kitazaki	1051
TEACHER-STUDENTS' LEARNING TO TEACH PHENOMENON-BASED LEARNING PROJECTS M. Talvio, A.P. Rainio	1052
SOFTWARE FOR MUSIC EDUCATION: AUTOMATIC EVALUATION OF INTONATION ON BRASS AND STRING INSTRUMENTS J. Tejada, A. Murillo, A.M. Pérez González-de-Martos	1059
USING MACHINE LEARNING ALGORITHMS TO FORM AN AUTOMATIC STUDENT'S GRADE BASED ON THE SETS OF ASSESSMENT QUESTIONS O. Shvets, J. Kuzmina, K. Murtazin, G. Piho, M. Meeter	1066
PROBLEMS OF ONLINE LEARNING DURING THE PERIOD OF THE COVID 19 PANDEMIC AND POTENTIAL PROBLEM SOLUTIONS AT THE VILNIUS COLLEGE OF TECHNOLOGIES AND DESIGN A. Gulbinas	1075
WRITTEN COMMUNICATION APPREHENSION EXPERIENCED BY FIRST-YEAR UNDERGRADUATE ACCOUNTING STUDENTS C. Ireland	1082
THE TECHNOLOGISATION OF THEMATIC ANALYSIS: A CASE STUDY INTO AUTOMATISING QUALITATIVE RESEARCH M. Constantinou, R. Polvara, E. Makridis	1092
CLUSTERING OF EU COUNTRIES ACCORDING TO SELECTED ECONOMIC INDICATORS AND THEIR PISA2018 RESULTS A. Jazbec, N. Erjavec	1099
BUSINESS STUDENTS TEACHING DECENT WORK (SDG 8) IN SCHOOLS: A PEER-TO-PEER LEARNING EXPERIENCE P. Hauptfeld, J. Kuhlmann, T. Semmler-Matosic	1100

MUSICBLOCKS: A TECHNOLOGICAL DEVICE TO HELP STUDENT LEARN THE FUNDAMENTALS OF MUSIC B. Miotti	1109
CHANGES IN THE TEACHING, TOOLS USED, AND ACADEMIC PERFORMANCE DUE TO DISTANCE LEARNING M. Lepp, P. Luik, L. Raudsepp	1116
THE IMPACT OF LOCKDOWN DURING THE COVID-19 PANDEMIC ON STUDENT BEHAVIOUR AND EXAM SUCCESS RATE J. Kulička, V. Jehlička	1126
EIGENVALUES AND EIGENVECTORS IN THE EDUCATION OF THE FUTURE TRANSPORT ENGINEERS WITH SUPPORT OF MATLAB J. Kulička	1136
BIBLIOGRAPHIC REVIEW ON TEACHING ORTHOGONAL PROJECTIONS WITH 3D TECHNOLOGY C. Chivai, A. Soares, P. Catarino	1145
MOTIVATIONAL DESIGN IN FOREIGN LANGUAGE DISTANCE LEARNING E. Dolzhich, S. Dmitrichenkova, P. Dolzhich, Y. Sanchez Pozuelo	1155
SHIFT BACK TO IN-PERSON CLASSES PRESENTS NEW CHALLENGES E. Dolzhich, S. Dmitrichenkova, P. Dolzhich	1161
INFORMATION AND MULTIMEDIA SECURITY IN AN ONLINE LEARNING ENVIRONMENT T. Pandian	1166
ACTIVITIES TO IMPROVE THE COMMUNICATION SKILLS OF STUDENTS IN AN ACOUSTICS COURSE IN AN ENVIRONMENTAL ENGINEERING DEGREE E. Macho-Stadler, M.J. Elejalde-García	1172
EMPLOYABILITY AS A QUALITY AND IMPACT MEASURE OF DOCTORAL EDUCATION: A SUBVERTICAL MODEL D. Roy, M.E. Garcia Alvarez, M.D. Jimenez Lopez	1180
AN EDUCATIONAL FRAMEWORK FOR FINANCIAL CONSULTANTS C. Gal-Chiş, A. Birta	1188
A FINANCIAL EDUCATIONAL WEB TOOL BASED ON ONLINE RESOURCES C. Gal-Chiş, D. Oprea	1198
UNLEARNING FOR DEEPER LEARNING K. Adjout, G. Jain, L. Brown	1206
AI CHATBOT-SUPPORTED GRAMMAR TENSE LEARNING ON EFL STUDENTS LEARNING EFFECTIVENESS M.R.A Chen, Y.H. Lin	1207
EFFECT OF FLIPPED CLASSROOM ON COGNITIVE AND EMOTIONAL SKILLS DEVELOPMENT OF PRIMARY SCHOOL PUPILS C. Okeke, T. Akobi	1217
EFFECTS OF DEMOGRAPHIC CHARACTERISTICS ON WORK STIMULATED STRESS AMONG EARLY CHILDHOOD EDUCATORS USING STRUCTURAL EQUATION MODELLING T. Akobi, C. Okeke	1226
STRESS COPING STRATEGIES AND PECULIARITIES OF THE SENSE OF COHERENCE IN SENIOR – FORM STUDENTS, DURING THE COVID 19 PANDEMIC A. Ivanauskas, J. Laurinavičiūtė	1234
SPECIAL COURSE AS A FORM OF STUDENTS' ADAPTATION TO THE EUROPEAN CREDIT TRANSFER SYSTEM G. Eremeeva, N. Sigacheva, M. Sigachev	1240
INTERACTION OF PHYSICAL EDUCATION AND SPORTS TEACHERS WITH STUDENTS IN A DIGITAL EDUCATIONAL ENVIRONMENT: THEORETICAL BACKGROUND M. Sigacheva, N. Sigacheva, G. Eremeeva	1248
IS THE CALCULATION OF THE MEDIAN FOR UNIVERSITY STUDENTS SIMPLE? A.E. Madrid-García, S.M. Valenzuela-Ruiz, C. Batanero	1253
ENERGY - THE CENTRAL IDEA OF THE ESCAPE GAME R. Maršálek, K. Trčková, Z. Václavíková	1258
MIND MAP AS A TOOL FOR STRUCTURING CONCEPTS AND INTERDISCIPLINARY RELATIONSHIPS K. Trikova R. Maržálek, Z. Václaníková	1265

LINKS BETWEEN WORK STRESS, FATIGUE AND WORK ENGAGEMENT OF THE TEACHERS IN PUBLIC AND PRIVATE SCHOOLS DURING THE COVID-19 PANDEMIC R. Pilkauskaite Valickiene, K. Gintovt	1274
ONLINE STUDENT FEEDBACK USING THE CAPACITY BUILDING FRAMEWORK OF PEDAGOGY, ANDRAGOGY, HEUTAGOGY, AND TRANSACTIONAL DISTANCE J. Robinson	1282
AUGMENTED REALITY IN PRIMARY EDUCATION: TEACHERS' PERSPECTIVES ON POTENTIAL AND BARRIERS J. Tiede, K. Förster, S. Grafe, E. Mangina	1283
INTERACTION ACTIVITIES WITH ICT TOOLS FOR ENGINEERING: ANALYSIS OF APPLICABILITY OF THE FLIPPED CLASSROOM AND ACADEMIC RESULTS Z. Azkorra-Larrinaga, I. Gómez-Arriaran, K. Martin-Escudero, A. Erkoreka-González, N. Romero-Antón	1293
MAPPING THE KEY MOTIVATIONS OF OPENLEARN LEARNERS IN THE PANDEMIC P . Law	1298
DEVELOPING PRIMARY SCHOOL OUTREACH ACTIVITIES AS PART OF THE RETHINKING ENGINEERING EDUCATION IN IRELAND PROJECT K. O'Sullivan, I. Morris, N. Fitzgerald, C. Cassidy, J. Walsh, E. O'Connell, F. Boyle	1307
HYGIENE IN THE COURSE OF TIME – A SERIOUS ADVENTURE GAME ON THE TOPIC OF (HOSPITAL) HYGIENE T. Wernbacher, S. Wimmer, N. Denk, C. Kraus, G. Mittmann, A. Pfeiffer	1315
A PROPOSAL FOR CATEGORIZING GAME-BASED ASSESSMENT METHODS A. Pfeiffer, N. Koenig, T. Wernbacher, S. Bezzina, A. Dingli, V. Vella	1323
MODELING AND SIMULATION OF ENERGY SYSTEMS: AN INTEGRATED PRACTICAL EXERCISE L. García-Pérez, M. Santos	1330
THE PERSONAL LEARNER PROFILE, AS THE KEY COMPONENT FOR SHAPING A PERSONALIZED LEARNING JOURNEY, IN A LEARNING MANAGEMENT SYSTEM IN THE DIGITAL ERA M. Facler	1336
THE LIVED EXPERIENCE OF BLACK INTERNATIONAL STUDENTS AT A POST-1992 UNIVERSITY IN ENGLAND: AN INTERPRETATIVE PHENOMENOLOGICAL ANALYSIS OF ACADEMIC RESILIENCE P. Seuwou, D. Sarwar, A. Pilkington	1345
AN INVESTIGATION OF THE READING HABITS OF UNDERGRADUATE ENGLISH AS A FOREIGN LANGUAGE STUDENTS AT AN OPEN UNIVERSITY IN THAILAND C. Vivekmetakorn, C. Ireland	1355
A SUGGESTED MODEL FOR A STEAM NON-FORMAL TRAINING TO EMPOWER GIRLS D. Bebenova-Nikolova, D. Zhelezova-Mindizova	1361
AN INTERNATIONAL DESIGN STUDIO: EXPERIENCES AND LESSONS FOR THE CHANGING EDUCATION AND PRACTICE OF DESIGN D. Hasirci, Y. Albayrak Kutlay	1366
PEDAGOGICAL AGENCY IN DIGITALISED EDUCATION T. Winman	1375
ASSESSMENT OF PEDAGOGICAL COMPETENCE OF ACADEMIC STAFF: CRITERIA AND INDICATORS O. Vindača, V. Ļubkina	1385
THE GREAT QUIZ OF DATABASES A.J. Díaz Honrubia, L. Prieto-Santamaría, A. Rodríguez-González, E. Menasalvas-Ruiz, L. Mengual-Galán, C. Fernández-Baizán	1395
RESULTS AND IMPACT ASSESSMENT OF TWO YEARS OF THE LEAF PROJECT: THE EUROPEAN RESEARCHERS NIGHT FOCUSED ON GREEN DEAL TOPICS G. Burzachechi, A. Della Ceca, G. Ciocca, E. Diociaiuti, R. Donghia, V. Guglielmotti, M. Martini, S. Pierangeli	1404
TWENTY FIRST CENTURY DIGITAL SKILLS AMONG IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY GRADUATES S. Zakareya, J. Alghamdi, G. Alshafei, F. Mostafa, S. Shahpo, S. Alzahrani	1413
CREAT_ED ONLINE PLATFORM: ARCHIVING, UNARCHIVING, AND INTERPOLATING IN A TIMELINE T. Assis. C. Martins. R. Boavista. G. Mayalhães. A. Ayujar	1423

THE DIGEDU-2022 PROJECT: DIGITIZATION AND DIGITALIZATION OF PRESCHOOL AND PRIMARY EDUCATION THROUGH MOBILE APPLICATIONS M. Čarapina	1431
DIGITAL POVERTY AS A BARRIER TO ACCESS G. Curry, J. Butcher	1436
THE PROTOTYPE OF A TABLET SPLIT-SCREEN APPLICATION FOR COLLABORATIVE LEARNING M. Čarapina, K. Pap	1437
CHALLENGES AND OPPORTUNITIES IN THE USE OF OPEN EDUCATIONAL RESOURCES BY K-12 TEACHERS E. Rodrigues, O. Luiz de Oliveira	1445
THE IMPACT OF HOSTILE AND BENEVOLENT SEXISM ON YOUNG WOMEN'S COGNITIVE RESPONSE AND PRODUCTIVITY K. Žardeckaitė-Matulaitienė, V. Balčiūnė	1451
ONLINE TEACHING AND STUDENTS' ACADEMIC (DIS)HONESTY S. Bračun	1458
MEETING THE NEEDS OF MULTILINGUAL LEARNERS WITH AND WITHOUT DISABILITIES: A TEAM APPROACH TO INTERVENTION S. Watson, S. Judge	1469
BEPART PROJECT: SCENARIOS OF YOUTH PARTICIPATION AND CURRICULAR INNOVATION AT SCHOOLS A. Monteiro, C. Leite, M. Sampaio, R. Barros	1470
A REVIEW OF STRATEGIES, MEASURES AND SERVICES IMPLEMENTED TO ADDRESS THE NEEDS OF DISABLED STUDENTS DURING THE COVID-19 OUTBREAK IN GREECE: CHALLENGES AND PERSPECTIVES T. Papazoglou, F. Papazis, S. Kalaitzi, A. Vlachou, L. Tsermidou, A. Toulia, A. Fyssa	1478
HOW DO NOVICE TEACHERS PERCEIVE THE EFFECTIVENESS OF PROJECT-BASED LEARNING TRAINING? N. Clark	1479
THE COMPARATIVE STUDY OF THE EFFECTS OF INQUIRY LEARNING MODEL, RQA LEARNING MODEL, MIXED-LEARNING MODEL (INQUIRY, RQA, TPS), AND CONVENTIONAL LEARNING ON THE RETENTION OF BIOLOGY CONCEPT GAINING AT SENIOR HIGH SCHOOLS IN INDONESIA A.D. Corebima, S. Sulisetijono, B.H. Siswati, N. Choirunisa'	1487
VOCATIONAL TRAINING IN THE CONSTRUCTION SECTOR TO HELP MEET EUROPEAN GREEN DEAL TARGETS G. Sotorrio, J.A. Tenorio Rios, C. Verde Ramis, E. Rodriguez Arevalo	1494
WHY DO CHILDREN LEARN PROGRAMMING? –A LITERATURE REVIEW OF CONTEMPORARY RESEARCH A. Fuentes Martinez, S. Ekström, N. Humble	1503
ANALYSING ONLINE TOOLS USED DURING COVID-19 PANDEMIC AND THE POTENTIAL OF THEIR USE FOR STANDARD TEACHING F. Smrčka, Z. Dostálová, H. Vojáčková	1511
A REPORT CONTENTS FRAMEWORK FOR THE FINAL YEAR PROJECT IN COMPUTER SCIENCE DEGREES P. Bermejo, V. Pérez-Piqueras	1521
HOW TEACHERS ARE AFFECTED BY INSTITUTIONAL ACTIONS AIMING TO REDUCE E-LEARNING BARRIERS IN HIGHER EDUCATION T. Millidonis, P. Lois, I. Georgiou, E. Tsoukatos	1527
WHAT IS THIS BUG? INTERACTIVE ENTOMOLOGICAL KEY TO HELP THE STUDY OF INSECT'S ORDERS M. Ferrer-Suay, J. Selfa	1537
21ST CENTURY SKILLS IN HIGHER EDUCATION - AN EMPIRICAL ANALYSIS OF CURRENT CHALLENGES AND POTENTIALS AT A UNIVERSITY OF EXCELLENCE M. Kienzler, A. Jantos, L.M. Langesee	1542
ANALYSIS OF THE GENERATION OF EXPLANATIONS FOR SELF-ASSESSMENT EXERCISES ON ALGORITHM SCHEMES AND DATA STRUCTURES L. Araujo, J. Martinez-Romo, L. Plaza, F. Lopez-Ostenero	1554
CO-CREATING INNOVATIONS IN SHARED LEARNING TEAMS, WORKING IN TEAMS WITH STUDENTS, LECTURERS AND WORKFIELD PARTNERS IN HIGHER EDUCATION C. Thomassen. T. Stoper	1564
V., 110/110000011, 1. 010/001	

CHILDREN'S PARTICIPATION IN EDUCATIONAL PLANNING IN KINDERGARTEN S. Ograjšek, M. Mithans, M. Ivanuš Grmek	1571
TEACHERS' USE OF THE DEMONSTRATION METHOD IN SLOVENIAN PRIMARY SCHOOLS M. Mithans, S. Ograjšek, M. Ivanuš Grmek	1577
COMBINING PERSONAL STUDENTS' LIVES WITH HIGHER EDUCATION IN EUROPE: A STUDY OF THE REGULATIONS AND HOW THEY AFFECT STUDENTS WITH FEWER OPPORTUNITIES S.J. Ros Turégano	1583
THE INCLUSION OF STUDENTS WITH DIFFICULTIES IN COMBINING STUDIES, FAMILY AND WORK IN HIGHER EDUCATION: DESIGN OF A QUALITATIVE RESEARCH TO FIND OUT THE CAUSES OF THEIR DROPOUT OF UNIVERSITIES S.J. Ros Turégano, B. Escarabajal Aniorte, N. Rial Peralta	1589
IMPACTS OF FACULTY MINDSET AND CULTURAL COMPETENCY ON THE SUCCESS OF COMMUNITY COLLEGE TRANSFER STUDENTS IN ENGINEERING AT A 4-YEAR INSTITUTION I. Fomunung	1596
TRANSDISCIPLINARY DIDACTICS IN THE TRAINING OF YOUNG PEOPLE IN SOCIAL VULNERABILITY IN BRAZIL V.L. Silva, V. Simão, S. Andrade	1597
"BECAUSE OF THIS WAR, I WILL REPEAT THE YEAR": SMARTPHONES' USE OF UKRAINIAN REFUGEES CHILDREN N. Khvorostianov	1603
RELIABILITY AND VALIDITY IN OBSERVATIONAL EVALUATION OF TEACHER CANDIDATES M. Strong, J. Gargani	1604
CURRICULUM DESIGN AND ASSESSMENT OF A MULTIMEDIA STORYTELLING COURSE FOR NURTURING CREATIVITY AMONG SECONDARY SCHOOL STUDENTS IN HONG KONG M. Fung, K. Chan, M. Tse, J. Lau	1605
HYBRID LEARNING AND ITS IMPACT ON PEDAGOGICAL ENTITIES AND ITS INTEGRATION IN HIGHER EDUCATION IN MOROCCO I. Nanou, B. Riyami, M. Azzouazi, E.H. Labriji	1606
LEARNING GEOMETRIC TRANSFORMATIONS IN LUDODIDACTIC ACTIVITIES A. Amirante, L. Tortorelli, I. Veronesi	1612
A PHENOMENOGRAPHIC STUDY ON SINGAPORE PRIMARY SCHOOL CHINESE TEACHERS' PERCEPTION OF THEIR BLENDED LEARNING EXPERIENCES L.X.M. Peh, G.P. Aw	1619
IMPLEMENTATION OF GENERIC SKILLS IN THE PROGRAMMES OF THE SCHOOL OF AGRICULTURAL, FOOD AND BIOSYSTEMS ENGINEERING: A METHODOLOGICAL PROPOSAL B. Diezma, E.C. Correa Hernando, R. Haro Hidalgo, J.M. Arroyo Sanz, F. Ayuga, R.M. Carabaño, P. Esteve, P. González-Melendi, C. López, D. Palmero, D. Pereira	1620
IMPACTS OF A LEARNING ENVIRONMENT USING TECHNOPEDAGOGY ON COMPETENCY DEVELOPMENT IN COVID-19 TIME P.Y. Therriault, J. Maclure, S. Gagné-Trudel, M.È. Lacombe, L. Tardif	1627
INTERCULTURAL EXCHANGE IN TIMES OF CRISIS: BILINGUAL COLLABORATIONS N. Tcherepashenets	1636
ONLINE ADJUNCT FACULTY IN A GIG ECONOMY: SUPPORTING SUCCESSFUL ONLINE TEACHING AND LEARNING J. Robinson	1637
PRACTICE BASED AUTOMATION SYSTEMS EDUCATION T. Wanyama	1638
PARASITES IN MOTION: TEACHING VIDEO LIBRARY M.T. Gómez Muñoz, A. Montoya, A.S. Olmeda, L. de Juan, I. Azami, J.P. Barrena, J.D. Carbonell, I. Hurtado, F. Valcárcel, A. Meana	1644
SELECTED ASPECTS OF ELEMENTARY SCHOOLS' APPROACHES TO THE PRIMARY PREVENTION OF PUPILS' RISKY BEHAVIOR E. Zezulková, K. Janků, J. Pipeková, J. Viktorin	1651
SCHOOL EDUCATION, TECHNOLOGIES, CHALLENGES – PRACTICE, ANALYSIS AND PERSPECTIVES BASED ON THE GEORGIAN EXAMPLE L. Tayloividge, C. Vatawadge, M. Bollendage	1658

PARTICULARLY GIFTED YOUTH-CENTERED LEARNING/SAFE ENVIRONMENT, THE CHALLENGES OF STANDARDIZATION AND LEGAL REGULATION L. Tavdgiridze, L. Jakeli, N. Sherozia, M. Bolkvadze	1663
POST SECONDARY TECHNICAL VOCATIONAL EDUCATION AND TRAINING EDUCATION FRAMEWORK FOR AUTISTIC LEARNERS IN MALAYSIA M.K. Puteri Zarina, M.Y. Mohd Yusop, S. Palanible, N.S. Abdul Rani, N.A. Mohd Nor, S.I. Safie, C. Mason	1668
SOCIAL INNOVATION BY HIGHER EDUCATION INSTITUTIONS: THE CASE OF TWO DISTINCT UNIVERSITIES IN A MUNICIPALITY IN GHANA A. Kuranchie	1678
DEVELOPMENT OF COMPUTATIONAL THINKING COMPETENCES IN A TEACHER EDUCATION PROGRAM O. Broza, L. Biberman-Shalev, N. Chamo	1686
THE IMPACT OF LECTURERS' INVOLVEMENT IN TRAINING ON LEARNING OUTCOMES DEVELOPMENT ON THEIR STUDENTS' ACADEMIC ACHIEVEMENT S. Gogiashvili	1687
BUILDING THE "4C" INTERNATIONAL PARTNERSHIP FOR THE EFFECTIVE INTERNATIONAL PROJECTS D.A. Krawczyk	1692
STAKEHOLDERS' INVOLVEMENT IN THE DESIGN AND FURTHER DEVELOPMENT OF LEARNING OUTCOMES S. Gogiashvili, N. Doghonadze, J. Krajka	1696
FOCUS: MONITORING THE DEGREE OF CONCENTRATION Š. Gergelitsová, T. Holan	1706
A RESEARCH AGENDA FOR BEAUTY AND SPA EDUCATION C. Coughaln, C. Murphy	1711
DEALING WITH IMPLICIT STRUCTURES IN THE TRANSLATION TRAINING ACTIVITIES F. Sitdikova, S. Peretochkina, K. Sakhibullina	1717
GLOBALIZATION THROUGH THE ENGLISH LANGUAGE: THE CHALLENGES A. Beytenbrat, R. German	1725
INCORPORATION OF PROJECT BASED LEARNING METHODOLOGY IN THE SUBJECT OF MATERIALS SCIENCE IN THE MECHANICAL ENGINEERING DEGREE J. Gomez-Caturla, J. Ivorra-Martinez, O. Fenollar, N. Montanes, D. Garcia-Garcia	1726
SIMULATION OF A WORK ENVIRONMENT AS A LEARNING METHODOLOGY IN THE INDUSTRIAL DESIGN AND PRODUCT DEVELOPMENT ENGINEERING DEGREE J. Ivorra-Martinez, J. Gomez-Caturla, V. Moreno, D. Garcia-Garcia, L. Quiles-Carrillo	1732
INCORPORATION OF THE SUSTAINABLE DEVELOPMENT GOALS IN SUBJECTS OF THE MATERIALS SCIENCE AREA: USE OF PLE AND CONTENT CURATION M.D. La Rubia, J.D. Aguilar-Peña, D. Eliche-Quesada, S. Bueno-Rodríguez, J.M. Romero-García, C. Rus-Casas	1739
WHAT DO KINDERGARTEN EDUCATORS, PRIMARY SCHOOL TEACHERS AND PARENTS EXPECT OF ONE ANOTHER WITH REGARDS TO HELPING THE TRANSITION FROM KINDERGARTEN TO PRIMARY SCHOOL IN HUNGARY? A. Fleisz-Gyurcsik	1745
KNOWLEDGE AMONG PARENTS ON THE CHARACTERISTICS OF SCHOOL READINESS DURING THE TRANSITION PERIOD A. Fleisz-Gyurcsik	1752
CREATING A NAME AND MEANING TO POST-TRAUMATIC STRESS IN THE AFTERMATH OF THE COVID-19 PANDEMIC: HELPING BUSINESSES AND EDUCATION MOVE TOWARDS HEALING IN ADJUSTMENT MEASURES B. Barrett	1757
TEACHING STUDENTS TEAMWORK SKILLS N. Wijenayake	1758
BARRIERS AND BENEFITS IN INTERCULTURAL TEACHING OF CZECH AS A SECOND LANGUAGE D. Vicherková	1759
WHATSAPP, A TOOL FOR CO-CREATION, COMMUNICATION AND SOCIAL JUSTICE P. Lane, R. Lafferty	1769
INNOVATING THE SOFTWARE ENGINEERING CLASS THROUGH MULTI-TEAM DEVELOPMENT A Brockenbrough	1776

COMBAT MODEL SITUATIONS AS A DIDACTIC TOOL IN A VIRTUAL ENVIRONMENT M. Novák, D. Ullrich, J. Stříbrný	1782
AUGMENTED GEOMETRY IN UNIVERSITY EDUCATION M. Russo, A.M. Giugliano, G. Flenghi, L. Carnevali, M. Martone, A. Marrella, F. Sapio	1787
IMPROVING PRE-MEDICAL/HEALTHCARE STUDENTS' CRITICAL THINKING/REASONING IN AN INNOVATIVE, INTERDISCIPLINARY, ACTIVE-LEARNING PHYSICS OF MEDICINE PROGRAM N. Donaldson	1797
ENGAGING THE WORLD J. Mendolia	1803
DEEPLY-DIGITAL LEARNING: ADDRESSING THE NEEDS OF THE IGEN AND ALPHA GENERATIONS A. Tapp, E. Soloway, C. Norris	1804
THE IMPACT OF GAME-BASED LEARNING PLATFORMS IN TEACHING UNDERGRADUATE ENGINEERING COURSES S. Keivanpour	1811
ACCESSIBILITY AND INCLUSION IN THE HYFLEX CLASSROOM – TOOLS, TECHNIQUES, AND LEARNINGS J. La Greca, J. Hanham	1818
MAKING LEARNING FUN P. Lane	1825
CREATIVITY-BASED TEACHING APPROACH TO SUSTAINABLE ENGINEERING AND DESIGN S. Keivanpour	1832
THE SOURCE OF CROSS-LINGUISTIC INFLUENCE IN THIRD LANGUAGE ACQUISITION: TEACHING ENGLISH AS A SECOND FOREIGN LANGUAGE O. Maximova, D. Tavberidze	1837
EXPLORING PRIMARY CAREGIVERS' PERCEPTIONS OF CHILDREN'S WELLBEING DURING COVID-19 WITHIN A LOW SOCIOECONOMIC STATUS SCHOOL CONTEXT IN THE CAPE METROPOLE S. Mamutse, T.A. Adonis, N. Somhlaba	1846
"ENVISIONING THE GOOD TEACHER": UNDERSTANDING THE TEACHER IMAGE OF STUDENT TEACHERS AT THE BEGINNING OF THEIR STUDIES T. Fischer, J.L. Degen, A. Kleeberg-Niepage, M. Förster, A. Perzy	1855
ICT FOR RESEARCH AND EDUCATION OF VISUALLY IMPAIRED PEOPLE D. Karastoyanov	1856
GENDER AND AGE GAP IN THE PRE-SERVICE SCIENCE TEACHERS' PERCEPTION OF DIGITAL COMPETENCE J. Luque-Jiménez, C. García-Ruíz	1864
NEW APPROACHES ON THE FOREIGN LANGUAGE TEST FOR UNIVERSITY ACCESS IN SPAIN T. Magal-Royo, J. Garcia Laborda	1870
NON-DIRECTIVE TEAM COACHING TO ENHANCE TEAM EFFECTIVENESS IN ENGINEERING MASTER STUDENTS R. García Galán, I. Ortiz Marcos, R. Molina Sanchez	1874
STUDYING OF THE START-UP PROCESS OF WOUND ROTOR INDUCTION MOTORS VIA VIRTUAL ENVIRONMENTS IN THE ENGINEERING EDUCATION V. Raydovska	1878
EDUCATION FOR RESILIENCE AND WELLBEING: CHILDREN'S FOLK SONGS AS A DIDACTIC POST-COVID RESOURCE J. Albacete-Maza	1888
PARADIGM SHIFT IN THE PERCEPTION OF LEARNING THROUGH THE USE OF THE SEMANTIC PRIMING TECHNIQUE D. Puente Berdasco, T. Magal-Royo, E. Jiménez-Ibáñez	1893
MODERN PSYCHOMETRICS FOR THE EVALUATION OF COMPETENCIES: AN APPLICATION TO THE PSYCHOMETRICS COURSE IN THE PSYCHOLOGY DEGREE M. Sorrel, P. Najera, R. Kreichtmann, F. Abad, C. García, A. Martínez-Molina, S. Collado	1900
STIMULATION OF GROSS MOTOR AND SOCIAL ABILITY IN EARLY CHILDREN THROUGH TRADITIONAL GAME MODIFICATION S. Tatwiningsih. A. Nelawati. M. Masta.	1901

THE ROLE OF A TEXTBOOK IN THE DEVELOPMENT OF CRITICAL AND CREATIVE THINKING Z. Strakova	1914
CHATBOT AS A NEW LECTURING TUTOR: CHALLENGES IN LECTURING AND IN CYBERSECURITY J. Lourenço, J. Morais, M. Lousã, S. Sá	1920
PEER ASSESSMENT: THE PERCEPTIONS OF HOSPITALITY AND TOURISM STUDENTS S. Silva, C. Silva	1927
THE USE OF ICT STRATEGIES IN TEACHING IN HIGHER EDUCATION: THE EXPECTATIONS OF HOSPITALITY, TOURISM, AND RESTAURANT STUDENTS S. Silva, M.J. Couto, C. Silva	1932
SUBJECTIVE ASSESSMENT OF COGNITIVE ABILITIES IN THE CONTEXT OF QUALITY OF LIFE IN INDIVIDUALS WITH CURED ONCOLOGICAL DISEASE FROM THE POINT OF VIEW OF SPECIAL PEDAGOGY T. Harčaríková, Z. Ivanová, K. Tkáčová, E. Zezulková, K. Janků	1938
WOMEN IN STEM: HOW TO BRING THEM FROM ZERO TO HERO? M. Valente	1947
THEORETICAL AND CONCEPTUAL FRAMEWORKS AND MODELS: WHAT ARE THEY, WHEN, AND HOW TO APPLY THEM IN TEACHING RESEARCH METHODOLOGY TO MASTER AND PHD STUDENTS? I. Ludviga	1948
FISH FOR STUDY: AN EDUCATIONAL GAME TO PROVIDE MOTIVATION AND AVOID DISTRACTIONS FROM MOBILE DEVICES DURING LEARNING H. Xu, G. Hopkins	1954
CHILDREN'S LIBRARY INTERIOR DESIGNS AND READING HABITS E.Y. Atalar, B.N. Aslan, D. Hasirci	1964
FLIPPED CLASSROOM FOR TEACHING EGE SPEAKING K. Bolshakova, M. Bolina, L. Naumenko, I. Orlova, E. Shmidt	1975
ORGANIZING THE EDU CONFERENCE FOR FOREIGN LANGUAGE STUDENTS L. Naumenko, M. Bolina, K. Bolshakova, I. Orlova, E. Shmidt	1980
AN INTERNATIONAL LONGITUDINAL RESEARCH PROJECT INVESTIGATING THE PSYCHOLOGICAL DEVELOPMENT OF YOUNG ADULTS IN SOUTH AFRICA: MANAGING ATTRITION M. Florence, T.A. Adonis, C. Botha, N. Mpisane, A. Thalmayer, L. Naudé	1986
TEACHER-STUDENT MENTORING PROGRAM FOR CHEMISTRY COURSES IN THE BACHELOR'S DEGREE IN PHARMACY S. Montalvo-Quirós, R. Perezzan, D. Herráez-Aguilar	1993
FIRST MONTH AT LITHUANIAN SCHOOLS: UKRAINIAN CHILDREN REFUGES LIVED EXPERIENCES A. Batuchina, M. Ratkevičienė	2001
TECHNICAL AND CREATIVE KNOWLEDGE, INTERDISCIPLINARY VISIONS AND CONNECTING SKILLS FOR SLOW FASHION INDUSTRY: SUSTAINABLE TEXTILE DYEING TECHNOLOGIES AND CAPSULE COLLECTION DESIGN A. Violano, R. Liberti, S. Ottieri, M. Cannaviello	2008
STEAM IN THE SECONDARY SCHOOL WITH NO BARRIERS FOR BLIND AND VISUALLY IMPAIRED PUPILS PROJECT A. Herrero, S. Palmero, C. Reguera, S. Sanllorente, G. Casado, T. Osorio, C. Tinagea, R. Vidovic, A. Jakovchevska, M. Cvetinović	2019
SELF-CONCEPT OF PRIMARY SCHOOL TEACHERS ACTIVE IN THE PREVENTION OF RISKY BEHAVIOUR (RESEARCH PERSPECTIVE) R. Božik, M. Tvrdoň, A. Tirpáková, A. Wiegerová	2029
THE INFLUENCE OF TECHNOLOGY-ENHANCED PROGRAMMING ENVIRONMENTS AND THE IMPACT OF TEACHER GUIDANCE AND INTERVENTIONS ON COMPUTATIONAL THINKING DEVELOPMENT N. Fanchamps, M. Van Der Wijk	2039
USING DESIGN THINKING TO TRANSFORM CLASSROOM PROJECTS C. Weiss	2050
LEARNING STYLES IN COMPUTER SCIENCE EDUCATION R. Fojtik	2060
ISSUES OF ASYNCHRONOUS DISTANCE LEARNING IN COMPUTER SCIENCE R. Fojtik	2066

REDUCING STUDENT ACHIEVEMENT GAPS: A CASE OF POLISH SCHOOLS IN LITHUANIA J. Urbanovič, B. Stankiewicz, K. Sokolovskaja	2074
INTERVENTION FOR RETENTION: DEVELOPING A SENSE OF BELONGING IN A COURSE COMMUNITY R. Vancelee, M. Oldham	2086
FORMATION OF THE ABILITY OF MEDICAL STUDENTS TO WORK IN TEAMS IN THE PROCESS OF TEACHING A FOREIGN LANGUAGE N. Plotnikova, T. Usmanov, K. Wagner	2087
TEACHING MAGNITUDES MEASUREMENTS AND PROCESSING OF RECEIVED RESULTS VIA VIRTUAL ENVIRONMENTS DURING THE COVID-19 PANDEMIC V. Raydovska	2093
THE APPLICATION OF ARTIFICIAL INTELLIGENCE TO ELABORATE REQUIREMENTS ELICITATION N. Horn, R. Buchkremer	2102
THE APPLICATION OF ARTIFICIAL INTELLIGENCE TO ELABORATE THE ROLE OF DIGITAL SIGNAGE IN PUBLIC AND HIGHER EDUCATION J. Schmank, R. Buchkremer	2110
DIFFICULTIES AND FACILITIES IN LOCATING OPEN EDUCATIONAL RESOURCES M.V. Germano de Abreu Pereira, O. Luiz de Oliveira	2116
DIGITAL JOB ONBOARDING - A EUROPEAN JOINT EDUCATION PROJECT ENHANCES EMPLOYABILITY AND DIGITAL JOB ONBOARDING OF YOUNG JOBSEEKING EUROPEANS R. Anckar, I. Mäkäräinen-Suni, A. Ruohonen	2122
COMMUNITY NURSING 360VISI SCENARIO – A PRAGMATIC PEDAGOGY FOR REAL LIFE LEARNING K. Whittingham, H. Wharrad, M. Taylor	2131
AFRICA'S BUSINESS EDUCATION CURRICULUM AND THE KNOWLEDGE ECONOMY A. Ibidunni, L. Mdaka, O. Oyewo	2135
STIMULATING UNIVERSITY STUDENTS' MOTIVATION TO START A BUSINESS: THE ENTREPRENEURIAL INTENTION MODEL IN PERSPECTIVE L. Mdaka, A. Ibidunni, O. Oyewo	2141
INNOVATION SKILLS, COMPETENCE EVALUATION, AND SELF-DIRECTED LEARNING: THE CASE OF INNOCORE, A BIOTECH INTERNATIONAL PILOT CHALLENGE A. Scroccaro, M. Bigatto	2148
1 OF 4: A POST COVID-19 CHANGE IN TEACHER COLLEGE TIMETABLE L. Biberman-Shalev, O. Broza, N. Chamo, S. Govrin, K. Ettinger	2157
INTRODUCTION OF ELECTRONIC LEARNING IN THE EDUCATIONAL MODULE "ICT-BASED NEUROREHABILITATION OF NEURO-COVID" (WITH CLINICAL CASES) R. Yoshinov, B. Yoshinov, I.B. Koleva	2158
AN ONTOLOGICAL MODEL OF NON-FORMAL LEARNING SITUATIONS HIGHLIGHTED THROUGH SOCIAL MEDIA: FOR GENERATING DESCRIPTIVE SCENARIOS A. Wague, M. Bousso, L. Capus	2166
TRANSFORMING DOCTORS INTO TEACHERS – A PROGRAMME THAT INTRODUCED NEWLY QUALIFIED DOCTORS TO MEDICAL EDUCATION THROUGH A TEACHER-TRAINING WORKSHOP AND NEAR-TO-PEER TUTOR SCHEME H. Knifton, S. Satheesan	2174
INTRODUCTION OF ELECTRONIC LEARNING IN THE EDUCATIONAL MODULE "PREFORMED PHYSICAL MODALITIES" I.B. Koleva, B. Yoshinov, R. Yoshinov	2175
FROM FACE-TO-FACE SERVICE-LEARNING TO REMOTE LEARNING: AN EXPERIENCE IN OPTOMETRY C. Vázquez-Sánchez, L.M. Gigirey	2182
PROJECT-BASED LEARNING AS AN OPTIMAL LEARNING METHOD IN MARINE SCIENCES A.M. Blázquez, C. Padrón, E. Badimón, E. Lozano	2189
DIGITAL LEARNING IN THE DEGREE IN PHARMACY I. Posadas, M.D. Pérez-Carrión	2198

LEARNING-TEACHING MODELS IN THE DEGREE IN PHARMACY M.D. Pérez-Carrión, I. Posadas	2199
IEEE STANDARDS: EDUCATIONAL PROGRAMS IN COVID-TIMES E. Vega Janica	2200
DEBATE IN ITALIAN SCHOOLS: STATE OF THE ART OF A (STILL) INNOVATIVE TEACHING METHODOLOGY R. Camarda	2201
USING STORYTELLING FOR ATTRACTING ATTENTION: EXAMPLES IN OPERATIONAL RESEARCH A. Rodríguez	2206
THE IMPACT OF OUTDOOR EDUCATION IN TEACHING-LEARNING PRACTICES: A STUDY OF ITALIAN SCHOOLS C. Giunti, P. Lotti, L. Orlandini, S. Panzavolta	2212
POSTOPERATIVE NURSING CARE IN RECOVERY ROOM USING 360° VIDEO LEARNING GAME AND USERS EXPERIENCES T. Nurmela, T. Leinonen, T. Franck, J. Saarinen, N. Laivuori, J. Aho	2219
REFORMULATING PRACTICAL LESSONS WITH FLIPPED-ORIENTED MEDIA CONTENT IN UNDERGRADUATE ELECTRONIC COURSES D. Valiente, F. Rodríguez-Mas, A. Ruiz, A. Peidro, A. Hortal, J.C. Ferrer, J.L. Alonso, S. Fernández de Ávila	2223
DESIGN OF A SCORING RUBRIC FOR THE ASSESSMENT OF CLINICAL COMPETENCIES IN THE SUBJECT OF OPTOMETRY IV OF THE DEGREE OF OPTICS AND OPTOMETRY-USC C. Vázquez-Sánchez, L.M. Gigirey	2224
THE INFLUENCE OF A CREDIT BEARING READINESS ACTIVITY ON STUDENT PREPAREDNESS FOR LEARNING THROUGH A SELF-REGULATED STUDY PROCESS R. Branch, H. Lee, A. Morris	2231
AN EVALUATION OF PRE-PLACEMENT PREPARATION ACTIVITIES PRIOR TO UNDERTAKING INDUSTRY PLACEMENT A. Cotter, A. Hackett	2232
FULFILLING OUR MORAL OBLIGATIONS WHILE TEACHING WITH TECHNOLOGY R. Branch, H. Lee, A. Morris	2237
EXPLORING THE EFFECTS OF DIFFERENT FEEDBACK TYPES ON 5TH GRADE STUDENTS' SCIENCE CONCEPTS IN A GAME-BASED LEARNING ENVIRONMENT S.P. Ho, T.H. Peng, T.H. Wang	2238
PROMOTING FEMALE STEM VOCATIONS WITHIN THE SDG FRAMEWORK E. Calvo Iglesias, E. Aguayo Lorenzo	2245
FROM CRISIS TO OPPORTUNITY: HOW THE PANDEMIC INSPIRED THE PROMOTION OF AFFECTIVE LEARNING ONLINE P. Griswold, T. Hammar	2249
WOMEN IN EDUCATION TEACHING IN HUNGARIAN IN PRIMARY SCHOOLS S. Járosiová	2256
LEARNING DURING THE PANDEMIC: A PROPOSAL TO STUDY STEREOCHEMISTRY A. Grunewald Nichele, F. Nunes da Silva	2262
PROBLEMATIC ADOPTION OF DIGITAL RESOURCES BY TEACHERS IN A MOROCCAN UNIVERSITY A. Boujdad Mkadem, N. Benaissa	2269
WIDENING STUDENT ACCESS TO IMPLICIT ASSESSMENT CRITERIA USING RECORDED VERBAL INSTRUCTIONS D. Taylor	2276
TOWARDS A GENERIC SHELL FOR A KNOWLEDGE TRACING AND CONTENT SEQUENCING TUTORING A. Ébalé Nnemete, L. Capus	2281
ENGAGEMENT, CULTURE, AND THE FUTURE FOR K-5 ONLINE LEARNING V. Hilbert, K. Green, K. Torres	2290
A CALL-TO-ACTION TO PROMOTE DIVERSITY AND SOCIAL JUSTICE IN DIGITAL TECHNOLOGIES C. Fort, S. Haniya	2300
DESIGN THINKING IN COLLABORATIVE PROJECT-BASED LEARNING K. Fujii, E. Inoguchi	2307

UNIVERSITIES IN INNOVATION ECOSYSTEMS - HIGHER EDUCATION PROVIDES KNOWLEDGE FOR INDIVIDUALS, WORKING LIFE AND SOCIETY S. Luojus, S. Kauppinen	2314
SOMETICS SOFTWARE: ASSESMENT OF ITS DESIGN, APPLICATION AND PROCESSING Y. Martínez Hierrezuelo, M.M. Bernabé Villodre, V. Martínez Bello	2326
A MULTIDIMENSIONAL ANALYSIS OF EDUCATIONAL EQUITY IN POST-SOCIALIST AND OLD-DEMOCRACY EU MEMBER STATES D. Stumbriene, R. Želvys	2334
EXPERIMENTAL LEARNING SPACES IN TEACHING SEISMIC SAFETY DESIGN E.K. Kokosy, A.E. Voinea	2335
IMMEDIATE IN-CLASS FEEDBACK: A FOLLOW UP STUDY OF THE EFFECTIVENESS OF USING A CUSTOM BUILT SOFTWARE APPLICATION TO GENERATE IMMEDIATE FEEDBACK FOR FIRST YEAR UNDERGRADUATE STUDENTS STUDYING A PRACTICAL SKILLS-BASED MODULE P. Doyle	2340
STORIES FROM PRE-SERVICE TEACHERS' DIGITAL LEARNING SPACE: WHAT KIND OF LEARNING SPACES DO OUR STUDENTS ASK FOR? AND WHO DO THEY NEED IN THERE? A.G. Nilsen, A.G. Almås	2345
EXPLORING STUDENTS' GENDER SENSITIVITY IN HEALTH SCIENCE M.T. Bartual-Figueras, J. Turmo-Garuz, M. Cabré-Pairet, A. Coco-Prieto, S. Gines-Padrós, M. López-Bartual, D. Rodríguez-Martín, L. Romero-Gutiérrez	2346
TUTORING PROGRAM FOR FIRST-YEAR UNIVERSITY STUDENTS: AN ESSENTIAL APPROACH TO REDUCE DROPOUT RATES E. Marguí, M.L. Escoda, M. Heras, M. Iglesias, M.D. Verdaguer, D. Pavón, M. Vergés	2351
SELF-ORGANIZED LEARNING ENVIRONMENT FOR TEACHERS' PROFESSIONAL DEVELOPMENT IN CRITICAL DIGITAL LITERACIES T. Romeu Fontanillas, M. Romero Carbonell, D. Español Fernández	2361
SOMETHING IS DIFFERENT IN THE VIRTUAL CLASSROOM – EXPERIENCES FROM EDUCATING UNIVERSITY STAFF ABOUT GENDER AND GENDER EQUALITY DURING THE PANDEMIC M. Wannberg, L. Borglund	2367
GENERAL SELF-EFFICACY AND TRANSFORMATIONAL LEADERSHIP IN SLOVAK EDUCATION L. Paskova	2368
JOB SATISFACTION AND PERFORMANCE MOTIVATION IN THE CONTEXT OF TRANSFORMATIVE LEADERSHIP OF SLOVAK TEACHERS L. Paskova	2373
GENDER SENSITIVE CONTENT IN MACHINE LEARNING SUBJECTS B. Pérez-Sánchez, N. Sánchez-Maroño	2382
A META-ETHNOGRAPHY EXPLORING CHALLENGES IN MOTIVATING STUDENTS TO PURSUE STEM CAREERS: A UAE PERSPECTIVE I. Alzaabi	2391
AREAS OF MENTOR COMPETENCE FROM THE VIEW OF MENTEES S. Klimszová, M. Trnová, G. Entlová, E. Malá, I. Šimonová	2398
LANGUAGES AND TRANSLATION IN THE CONTEXT OF INTERCULTURAL COMMUNICATION M. Pace	2405
EFFECTS OF MOSCOW CITY SCHOOLS CONSOLIDATION REFORM K. Adamovich, A. Kotlikova	2409
STUDENTS' APPROACH TO LEARNING IN A MASTER LEVEL SUBJECT IN TWO DIFFERENT YEARS M. Leiva-Brondo	2410
REGIONAL DIFFERENCES IN THE EDUCATIONAL OUTCOMES OF RUSSIAN STUDENTS IN PISA 2018: A SOCIOSPATIAL APPROACH K. Adamovich	2416
IMPLEMENTING ENGLISH AS A LEARNING LANGUAGE AT THE MASTER OF ANALYTICAL TECHNIQUES IN THE CLINICAL LABORATORY: THE CASE OF MASTER'S DISSERTATION J. Peris-Vicente, M.J. Ruiz-Angel, S. Carda-Broch	2417

INFLUENCE OF EFFECTIVE ONLINE TEACHING ON STUDENT RESULTS AT TECHNICAL UNIVERSITY M. Misutova, M. Misut	2422
PBL AND THE IMPACT OF STUDENTS' PERCEPTION OF SUCCESS IN THE UNITED ARAB EMIRATES R. Albers	2430
COMPARISON OF THE ARTISTIC EXPRESSION OF ROMA PUPILS IN INCLUSIVE AND SEGREGATED ENVIRONMENTS L. Horňák, M. Zbojan	2431
IMPLEMENTATION OF NEW MEASURES TO IMPROVE THE STUDENTS' ACADEMIC PERFORMANCE IN THE ADVANCED CHEMISTRY SUBJECT (CHEMISTRY ENGINEERING DEGREE) S. Carda-Broch, J. Peris-Vicente, M.J. Ruiz-Ángel, R. Castillo-Solsona, A. Larek	2437
BICHRONOUS ONLINE LEARNING IN IN-SERVICE TEACHER TRAINING: COMMUNITY DEVELOPMENT IN PRESCHOOL AND GENERAL EDUCATION E. Horváth, Á. Szekeres, E. Herbainé Szekeres	2443
CARMA: EXPLOITING AUGMENTED REALITY TO ASSIST CAMPUS EXPLORATION C. Papoulias, E. Papaioannou, C. Kaklamanis	2444
PROMOTING INTERNATIONALIZATION AT HOME: THE USE OF CONVERSIFI, A VIDEO CHAT PLATFORM, IN A DEGREE OF PRIMARY EDUCATION B. Labrador, C. Gómez Castro	2454
IMPROVE KEY COMPETENCES IN THE USE OF INFORMATION TECHNOLOGY V. Radev, T. Vazova	2463
TOWARDS A FRAMEWORK FOR WORK INTEGRATED EDUCATION M. Andersson, S. Tidlund	2471
STUDENTS' VISUAL PREFERENCES AND IMAGERY USE WHEN SOLVING TASKS INVOLVING FUNCTIONS R. Tomás Ferreira, I. Shtyka	2481
ANALYSIS OF ENGINEERING STUDENT ATTITUDE AND PERCEPTION DURING THE IMPLEMENTATION OF GAMIFICATION A. Galán-Martín, M.D. La Rubia, J.M. Romero-García, L. Pérez-Villarejo, D. Eliche-Quesada, I. Romero-Pulido, S. Martínez-Martínez, S. Bueno-Rodríguez	2491
CREATIVE EDUCATIONAL PARADIGM IN A MULTICULTURAL SOCIETY S. Kagan, A.V. Kharkhurin	2498
A SYSTEMATIC LITERATURE MAPPING OF ACTIVE LEARNING STEAM EDUCATION FOR STUDENTS WITH AUTISM H. Hasti, D. Amo-Filva, D. Fonseca	2499
EXECUTIVE FUNCTIONS AND SELF-REGULATED LEARNING PROFILES IN HIGHER EDUCATION STUDENTS AND THEIR RELATIONSHIP WITH STUDY SUCCESS D.M. Manuhuwa, M. Snel-de Boer, J. Fleer, J.W. De Graaf	2507
MATHEMATICAL LEARNING BEFORE AND AFTER COVID-19: PRACTICES AND CONSEQUENCES R. Vegliante, A. Marzano, S. Miranda, C. Montefusco	2517
TEACHING COMPUTER SCIENCE IN KAZAKHSTAN PRIMARY SCHOOLS: CURRENT STATE, PROBLEMS AND PERSPECTIVES A. Katyetova	2524
DISTANCE LEARNING IN HIGHER EDUCATION DURING EMERGENCY REMOTE TEACHING: AN ANALYSIS OF TEACHING PRACTICES R. Vegliante, A. Marzano, S. Miranda, M. Santonicola	2532
STUDENTS' ACADEMIC PERFORMANCES PRE-COVID AND DURING LOCKDOWN: A REFLECTIVE COMPARISON ON THE EFFECTIVENESS OF ONLINE TEACHING VERSUS FACE-TO-FACE TEACHING FOR A LARGE FIRST-YEAR CHEMISTRY GROUP AT THE NORTH-WEST UNIVERSITY IN SOUTH AFRICA C.E. Read	2539
ENGAGING GEN Z: BLENDED LEARNING(S) FROM THE PANDEMIC B. Kolen	2547
ONLINE REMOTE EXAMS IN HIGHER EDUCATION: DISTANCE LEARNING STUDENTS' VIEWS M. Aristeidou, S. Cross, K.D. Rossade, C. Wood	2556
TEACHING THROUGH THE PANDEMIC: EVALUATING STUDENTS' EXPERIENCE IN AN ONLINE INTRODUCTORY GEOLOGY COURSE B. Chiu, C. Yestrebsky, N. Lapeyrouse	2564

EVALUATING THE USABILITY AND LEARNING POTENTIAL OF A VIRTUAL MUSEUM TOUR APPLICATION FOR SCHOOLS M. Aristeidou, T. Orphanoudakis, T. Kouvara, C. Karachristos, N. Spyropoulou	2572
IF THERE IS WILL THERE IS A WAY: ENHANCING HE TEACHERS' SELF-EFFICACY IN INTEGRATING DIGITAL TECHNOLOGIES INTO TEACHING T. Marstio	2579
LOW-COST HARDWARE PLATFORM IMPLEMENTATION FOR SYSTEM IDENTIFICATION AND EMULATION OF A REAL-LEVEL CONTROL PLANT D. Méndez-Busto, F. Zayas-Gato, A. Michelena, M. Timiraos Díaz, E. Jove, J.L. Casteleiro-Roca, H. Quintián, J.L. Calvo-Rolle	2585
VIRTUAL REALITY FLIGHT SIMULATION FOR PILOT TRAINING: STUDYING AROUSAL LEVELS DURING AN EMERGENCY LANDING I. Guerrero, T. Vallès-Català	2594
SHARING STRENGTHS TO IMPROVE INTERNATIONAL COLLABORATIVE LEARNING AND TEACHING PROCESSES IN HIGHER EDUCATION: THE NEXTGENG PROJECT	2600
S. Satorres-Martínez, J.I. Jiménez-González, R. Dorado-Vicente, E. Muñoz-Cerón, A. Kakko, C. Lapusan	
TEACHING POPULAR SCIENCE WRITING AS A MEANS OF POSTGRADUATE STUDENTS' COMMUNICATION DEVELOPMENT E. Sokolova, A. Zabolotskikh	2606
GETTING TO KNOW THE CITY THROUGH THE DIDACTICS OF TRANSLATION: A TEACHING PROPOSAL IN GRANADA (SPAIN) J. Gutiérrez-Artacho	2612
CREATING ALTERNATIVE DIGITAL REPOSITORIES IN HUMANITIES: DIGITIZATION OF THE ARCHIVAL COLLECTION OF THE MUSEUM OF EDUCATION OF THE UNIVERSITY OF CRETE A. Hourdakis, J. Ieronimakis, M. Souka, M. Kounalakis	2619
AUDIOVISUAL PILLS AS A MICROLEARNING TOOL IN TRANSLATION AND INTERPRETING TRAINING J. Gutiérrez-Artacho, M.D. Olvera-Lobo	2628
LEARNING THE KINEMATICS OF A ROBOT WITH NON-SPHERICAL WRIST WITH MATLAB A. Peidro, M. Fabregat-Jaen, P. Molla-Santamaria, R. Puerto, D. Ulbeda, D. Valiente	2635
GAD PROJECT: GAME CREATION IN AUGMENTED REALITY (AR) ENHANCING PROFESSIONAL DIGITAL SKILLS – AN OPPORTUNITY TO SUPPORT TEACHING IN TECHNICAL DISCIPLINES J.D. Badia, A. Cháfer, O. Gil-Castell, L. Pastor, M. Izquierdo, M.D. Hernáiz-Pérez, J.B. Giménez, J. Carrillo-Abad, A. Giannakopoulou, A. Giannakopoulou, A. Scotti Belli, P. Maciariello, G. Maciariello,	2645
A. Di Pierro, M. Capasso, B. Ferroleto PARASITIC ARTHROPODS: A COMMON FEATURE OF HUMANS, OTHER ANIMALS AND PLANTS	2651
G. Masiero, M. Bellio, S. Schumann, E. Piva, S. Pacchini, P. Irato, S. Bramuzzo, G. Santovito	2440
A CORPUS-BASED INVESTIGATION OF L2 ENGLISH SPEAKERS' WRITTEN LANGUAGE TO ENHANCE COMPREHENSION OF LINGUISTIC PATTERNS IN ENGLISH FOR SPECIFIC PURPOSES M. Duruttya	2660
FRUITFLY TO INTRODUCE THE MENDELIAN GENETICS IN PRIMARY SCHOOL E. Rossi, M. Bellio, E. Piva, S. Schumann, S. Pacchini, P. Irato, G. Santovito	2668
SUSTAGRI4.0: NEEDS ANALYSIS OF TRAINING IN SUSTAINABILITY, DIGITALISATION AND ENTREPRENEURSHIP IN THE AGRI-FOOD SECTOR AT VET LEVEL O. Gil-Castell, A. Cháfer, M. Öztürk, M.G. Pirina, N. Levikov, J.D. Badia	2677
PROMOTING LEARNING INTERDISCIPLINARITY AND EFFECTIVENESS TROUGH PROJECT-BASED LEARNING: THE CASE OF THE A+ PROJECT D. Pereira, M. Torres Pinto, E. Alves	2686
COLLABORATIVE AND COOPERATIVE LITERATURE REVIEW IN MULTIMODAL AND MULTIGENRE LEARNING SCENARIOS S. Araújo, M. Aguiar	2692
STUDIES IN A DISTANCE – PRACTICAL BACKGROUND FOR PARADIGM SHIFT IN HIGHER EDUCATION R. Poceviciene	2701

MULTIMODAL SCIENCE COMMUNICATION ACROSS DISCIPLINES IN VIRTUAL COLLABORATION S. Araujo, I. Mina, M. Aguiar	2709
DSERRA: PILOT SURVEY ON THE INTRODUCTION OF A NEW DEVICE TO IMPROVE LABORATORY TEACHING, IN A PRIMARY AND SECONDARY SCHOOL L. Guasti, L. Bassani, M. Sacco, M. Chiarantini, L. Messini	2715
USE OF A MULTIMODAL AND INTERACTIVE PRACTICE E-BOOK IN THE BASIC PSYCHOLOGY COURSE "CONDITIONING, MOTIVATION AND EMOTION" R. Rodríguez-Herrera, M. Olmedo-Córdoba, J. García-Pinteño, P. Fernández-Martín, J.J. León, A. Sánchez-Kuhn, M. Moreno Montoya, P. Flores	2725
INTEGRATION OF A VIRTUAL REALITY PLATFORM INTO UNDERGRADUATE ENGINEERING EDUCATION IN IRELAND P. Kelly, J. Moolman, C. Geary, J. Walsh, F. Boyle	2735
TO USE PRESENTATIONS OR NOT TO USE PRESENTATIONS (IN UNDERGRADUATE ENGINEERING STUDIES), THAT IS THE QUESTION E. Gur	2742
A CROSS-SECTIONAL STUDY ON THE PREVALENCE OF IMPOSTOR PHENOMENON IN ENGINEERING STUDENTS S. Manoharan, S. Choudhuri, O. Oye-Bamgbose, P. Plotkowski	2747
FIDELITY OF THE HEALTH-PREVENTIVE INTERVENTION PROGRAM FOR SUBSTANCE ABUSE AMONG ROMANY PUPILS WITH A MILD INTELLECTUAL DISABILITY P. Mirdalikova, J. Liba	2757
PROMOTING TRANSPARENT ASSESSMENT IN HIGHER EDUCATION – PRELIMINARY INSIGHTS FROM THE DIGI-PROF PROJECT S. Vasconcelos, A. Balula	2767
INTERCULTURAL COMMUNICATION THROUGH VIDEOCONFERENCING: PRE- AND POST-PANDEMIC M. Cassamally, P. Příbramská	2773
A REVIEW OF CULTIVATING STUDENTS' DESIGN COGNITION IN STEM EDUCATION D. Zhang, M. Siu-Yung Jong, C.S. Chai	2774
STUDENTS' ASPECTS OF MANDATORY PRACTICAL TRAINING: HOW NECESSARY IS KNOWLEDGE RELATED TO DIGITAL TRANSFORMATION FOR COMPANIES? Ž. Kotnik	2778
"YOU DON'T KNOW WHETHER IT'S ALL TRUE": USING A CRITICAL LITERACY PERSPECTIVE TO DEVELOP A TAXONOMY OF UK SCHOOL STUDENTS' JUDGMENTS WHEN SEARCHING THE INTERNET C. Harrison, C. Patterson	2787
TEACHING ONLINE: DIGITAL INITIATIVES IN DIGITAL EDUCATION AND MOBILE LEARNING A. Bengs, C. MacDonald, M. Cassar, A. Yeratziotis, G. Geratziotis, M. Prosen, J. Cilia, A. Granberg, G.A. Papadopoulos, S. Ličen	2794
MOTIVATIONAL BELIEFS SYSTEM, ENGAGEMENT IN LEARNING AND ADJUSTMENT TO SCHOOL: TESTING FOR MEDIATION USING PATH ANALYSIS V. Mih, C. Mih	2805
EDUCATION OF RADIOLOGICAL ASSISTANTS FOCUSING ON SELECTED ETHICAL ASPECTS OF MULTICULTURAL SOCIETY Z. Freitinger-Skalicka, S. Kavan, L. Michalcová, S. Strnad	2815
FROM FACE-TO-FACE TO ONLINE LEARNING: DESIGNING A PEDAGOGICAL MODEL FOR AN HIGHER EDUCATION CONTEXT A. Loureiro, I. Messias, D. Rocha, N. Ricardo Oliveira	2821
USE OF VIRTUAL REALITY FOR TEACHING RADIATION PROPAGATION I. Silva, V. Bremgartner, M. Cavalcante	2831
EFFECTIVENESS OF NOVEL APPROACHES TO OPHTHALMOLOGY EDUCATION IN MEDICAL SCHOOLS: A SYSTEMATIC REVIEW AND META-ANALYSIS D. Kalas, W. Choy, S. Spencer, A. Agar	2841
USING A FOCUS GROUP RESEARCH DESIGN TO IDENTIFY ESSENTIAL NURSE PRECEPTOR CHARACTERISTICS T. Hoot	2850

CONCEPTUALIZATION OF PEDAGOGICAL ENTREPRENEURSHIP: THEORY AND RESULTS OF QUALITATIVE RESEARCH A. Slišāne	2856
THE EFFECTIVENESS OF PROBLEM-BASED LEARNING IN DEVELOPING AND PROMOTING CREATIVE INTELLIGENCE: A COGNITIVE PERSPECTIVE M. Mapuya	2865
WHAT KIND OF MATHEMATICS SHOULD 'ENGINEERING MATHEMATICS' BE? MATHEMATICIANS' POINT OF VIEW L. Serafino, S. Damrah	2876
DESIGNING SPATIAL DATA MANAGEMENT COURSE BASED ON SPATIAL DATA INFRASTRUCTURE FOR NON-ICT BACKGROUND STUDENTS J. Holms, G. Vitols	2881
PRINCIPLES OF THE DESIGN AND IMPLEMENTATION OF LEARNING AND TEACHING SPACES IN HIGHER EDUCATION: LESSONS LEARNT FROM THE LTSHE PROJECT BASED ON CASE STUDIES FROM SEVEN EUROPEAN COUNTRIES T. Leiber	2888
PE(E)RFECTLY SKILLED: IMPRESSIONS OF AND EXPERIENCES WITH AN ONLINE METHOD FOR (INTER)ACTIVE AND PRACTICE-BASED SKILLS TRAINING IN HIGHER (DISTANCE) EDUCATION E. Rusman, R. Nadolski	2897
DEVELOPMENT OF A LEARNING MANAGEMENT SYSTEM TO ENHANCE RETRIEVAL PRACTICE IN SELF-PACED JAPANESE LANGUAGE LEARNING A. Kai, T. Wada, J. Nemoto, R. Matsuba, Y. Goda, M. Miyazaki, K. Suzuki	2898
CULTURAL COMPETENCES OF SCHOOL SOCIAL WORKERS: PERCEPTIONS OF CULTURALLY SENSITIVE SOCIAL WORK IN THE CONSTRUCTION OF INCLUSIVE EDUCATION M.S. Almeida	2908
GUIDED PROBLEM SOLVING TEACHING IN ENGINEERING. APPLICATION ANALYSIS IN THERMOTECHNIS SUBJECT N. Romero-Anton, K. Martin-Eskudero, Z. Azkorra-Larrinaga, I. Flores-Abascal, I. Gómez-Arriaran	2919
CARTO+: USING CITYPROBE IN EDUCATION TO EXAMINE CORRELATIONS BETWEEN WBGT AND THERMAL COMFORT ALONG THE WESTERN COAST OF TAIWAN C.H. Wang, P. Lu	2926
AN INSTRUCTIONAL MODEL OF CONTEXT-BASED LEARNING TO DEVELOP ENGLISH-MAJOR STUDENTS' DIGITAL MEDIA LITERACY SKILLS C. Kaoropthai, S. Prapinpongsakorn, S. Kaeophanuek, R. Rattanawongsa	2934
OUTDOOR LEARNING ACTIVITIES IN THE FIELD OF SCIENCE IN PRIMARY EDUCATION J. Dzerviniks	2940
COMPLETING THE CIRCLE: SHARING EXPERIENCES AND EXPERTISE IN THE CO- CREATION OF 360 DEGREE RESOURCES FOR SIMULATION TRAINING (360 VISI PROJECT)	2950
A. Lokken, H. Wharrad, T. Nurmela, G. Sancha, E. Navarro-Illana	2051
TECHNICAL-HAPTIC-SHELL PROJECT: DESIGN, CONSTRUCTION AND TEST OF A HOTAS-DLP MECHATRONIC DEVICE FOR PILOTS WITH REDUCED MOBILITY E. Saavedra Orellana, V. Ramos Lopez, T. Vallès-Català	2951
FORMAL, NON-FORMAL AND INFORMAL EDUCATION IN BECOMING A TRANSLATOR IN PORTUGAL AND THE ROLE OF TECHNOLOGY I. Silva, C. Quintas	2960
ACTION RESEARCH AND REFLEXIVE METHODOLOGIES FOR ONLINE EVENT	2967
PROCESSING S. Dugal, O. Demoura, E. Sanford, E. Catalan, E. Costa, C. Masiello, J. Puccetti, A. Kozaritz, H. Runci, A. Lee, B. Ellis, T. Kelly, S. Sampson, K. Slawinski, F. Torres, S. Singh, M. Troiano, R. Singh, E. Eaton-Ayres, A. Hogan, L. Abelson, S. Murray, C. Lamountain, C. Rodriguez, H. Marney, S. Melia	
PEACE GAMES: GAMES AS PROMOTERS OF DEMOCRATIC CULTURE AND PEACE RELATED COMPETENCES M. Pivec, U. Lagger, A. Kronberger	2969
ANALYSIS OF BRAIN WAVES IN LEARNING: A 360° VIDEO CASE FOR CLINICAL	2977
SIMULATION IN HEALTH SCIENCES D. Fernandez-Garcia, E. Navarro-Illana, C. Ferrer-Albero, O. Forero-Rincón, L. Estivalis-Torrent, D. Sancho-Cantus, F.J. Sancho-Pelluz	

PREPARATION OF SCENARIO FOR DECISION-MAKING BY INTERVENTION COMMANDER IN PROCESS OF HIGHER EDUCATION J. Svetlík, M. Konárik	2978
LEARNER-CENTRED APPROACHES TO LANGUAGE ASSESSMENT J. Bérešová	2982
STUDENT TEACHERS' SELF-ASSESSMENT J. Bérešová	2986
BUT WORSE: REMAKING FAMOUS GAMES ON A BUDGET AS A GAME DEVELOPMENT COURSE I. Nikolov	2991
CURRENT TRENDS OF PROFESSIONAL EDUCATION IN THE FIELD OF LEADERSHIP FOR SLOVAK ARMED FORCES I. Majchút, L. Belan	2998
TEACH LOVE ONLINE: EVALUATION OF A DIGITAL PSYCHOLOGICAL SEX-, LOVE- AND RELATIONSHIP FURTHER EDUCATION FOR TEACHERS AND STUDENT TEACHERS J.L. Degen, T. Fischer, A.J. Jaszczuk	3004
ACTIVE LEARNING IN INTERACTIVE SYSTEM DESIGN COURSES	3013
G.M.N. Isabwe, J.M. Madshaven, H. Sundbø TRAINING FOR INNOVATION DRIVEN RESEARCH: THE SENIOR INNOVATION	3022
LAB APPROACH	3022
S. Feijóo-Quintas, N. Gerbaudo-González, C. Dosil-Díaz, M. Gandoy-Crego, D. Facal SUPPORTING SCHOLARSHIP IN STEM: DEVELOPING AND SUPPORTING AN	3028
ENGAGED, DYNAMIC COMMUNITY OF SCHOLARS S. Pawley, M. Jones, D. Ford	3020
HOW TO TRANSFORM THREE ON-SITE UNIVERSITIES INTO A DISTANCE LEARNING UNIVERSITY? THE EXPERIENCE OF CEU UNIVERSITIES A. Magnet, L. Amado, G.M. Antón, A. Arnau, R. Arriazu, C.I. Baeza, S. Barquero, M.J. Baselga, V. Berlanga, E. Blasco, F. Bonete, A.J. Castaños, M.I. Castilla, J.M. Corpa, I. Correas, G. de la Calle, A. Diaz, P. Elhazaz, A.M. Enrique, L. Estevez, J.C. Frias, P. Gallego, R. García Carmona, E. García Roselló, R. García Vilardell, L. Hilario, C. Isabel Dopacio, J.F. Jiménez Jacinto, B. Jiménez Reguera, J.V. Jordá, A. López Álvarez, A.I. Mateos, J.L. Mateu, J.M. Mira de Orduña, S. Molina, E. Mozas, R. Palomo, F. Pardo, M.F. Rey-Stolle, I. Roa, J.A. Robles, F.J. Ruperez, I.A. Salazar, M. Sánchez Martínez, J.I. Sanz, S. Saugar, B. Serra, F. Serrano, J.M. Soria, F. Suay, M. Tirado, J. Torregosa, N. Valtueña	3029
HOW TO MEASURE STUDENTS' PERFORMANCE IN PBL? A. Perez-Pascual, J.M. Alberola, J. Marín-Roig, J. Toledo Alarcón, D. Palacio Samitier, J.L. Giménez López, S. Heras Barberá, F. Castells Ramón, D. Pérez López, J. Palanca Cámara	3031
DESIGN FOR INNOVATION IN EDUCATION: INTERDISCIPLINARY DESIGN CURRICULUM IN HIGHER EDUCATION M. Usán Porta, N. Tarazona Belenguer, O. Ampuero Canellas	3040
THE EXPECTATIONS AND PERCEPTIONS MEANINGS ATTRIBUTED BY HIGHER EDUCATION STUDENTS AND THEIR IMPACT ON THEIR ACADEMIC ENGAGEMENT IN PORTUGAL M.L. Neves, M. Varela, R. Fragoso	3048
PROJECT-BASED LEARNING: AN ACTIVITY ON ENVIRONMENTAL MANAGEMENT SYSTEMS IN BUSINESS N. Rueda López, R.M. Martínez-Vázquez, J. De Pablo Valenciano, J. Milán-García, J.L. Caparrós Martínez, F.J. García Corral	3057
A BOARD GAME-BASED VIRTUAL ENVIRONMENT FOR INTELLIGENT BOTS PROGRAMMING A. Heras, V. Sanchez-Enguix, J.M. Alberola, A. Perez-Pascual	3062
LEARNING MOTIVATION THROUGH ECONOMIC NEWS BLOGS IN THE INTRODUCTION TO ECONOMICS COURSE N. Rueda López, R.M. Martínez-Vázquez, J. De Pablo Valenciano, J. Milán-García, J.L. Caparrós Martínez, F.J. García Corral	3069
ELEMENTARY SCHOOL TEACHER'S SELF-EFFICACY K. Sýkora Hernády	3073
MVGEOPARK 360° - THE DIGITAL TO TEACH BIODIVERSITY, GEODIVERSITY, HISTORIC AND CULTURAL HERITAGE P.N. Silva, J. Castro Rodrigues, F.M. Ferreira Melo, J.N. Lemos Ferreira Real	3079
TALKYTUTOR: AN INNOVATIVE APPROACH FOR CHATBOTS FOR EDUCATION D. Rogein, P. Paglini	3088

NAVIGATING DIGITAL CHALLENGES TOGETHER: COOPERATION OF RESEARCHERS AND SUBJECT TEACHERS	3094
J. Haapaniemi, H. Janhonen-Abruquah, K. Koppel, S. Mcgarvie, P. Palojoki, J. Rendahl, M. Rödin, G. Åbacka, T. Vänt, J. Taar	
INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) AS A PLATFORM FOR STUDENT ENGAGEMENT (SE) AND SELF-DIRECTED LEARNING (SDL) P.M. Chewachong Akih	3102
APPROPRIATE FORMATTING PARAMETERS FOR DIGITAL LEARNING MATERIALS K. Mackare, A. Jansone	3110
THE USE OF PODCASTING FOR A HYBRID FLIPPED CLASSROOM C. Marco-Detchart, J. Taverner, J. Jordán	3119
FI.DO: FIGHTING FAKE NEWS AND DISINFORMATION- A SERIOUS GAME AND NEW METHODOLOGIES FOR TRAINING SENIOR CITIZENS A. Giannakopoulou, L. Bevilacqua, A. Gennarelli, L. Kokole, K. Lihtenvalner, I. Walczak, R. Vukcevic	3125
EVALUATING THE USE OF SELF-VIDEO TEACHING IN A FLIPPED CLASSROOM J. Taverner, C. Marco-Detchart, J. Jordán, T. Vos	3133
PERSPECTIVES ON THE TEACHING PROFESSION IN RELATION TO THE CURRENT GENERATION P. Hanáková	3139
SEEING THE DIFFERENCE IN TERTIARY OPHTHALMOLOGY EDUCATION: DEFICIENCIES IN THE TEACHING AND CONFIDENCE OF THE CONTEMPORARY MEDICAL WORKFORCE ACROSS REGIONAL AND METROPOLITAN AUSTRALIA W. Choy, S. Spencer, J. Hepschke, H. Zhang, D. Kalas, M. Coroneo, A. Kan, B. Shulruf, A. Agar	3144
COPING IN TURBULENT TIMES – CONCEPTUAL CONSIDERATION OF ELEMENTS OF SCHOOL CRISIS MANAGEMENT PROCESS J.P. Peltola, E. Lindfors, E. Luukka	3155
RESEARCH-BASED LEARNING IN THE DWELLING OF THE PRESENT: A CLASSROOM EXPERIENCE THROUGH MONITORING M. Álvarez Dorado, D. Ferrández, C. Morón	3165
SCAFFOLDING IN CLIL IN PRIMARY EDUCATION: A VIDEO STUDY ANALYSIS S. Klimszová	3172
AN APPLICATION OF DESIGN THINKING IN THE CLASSROOM TO PROMOTE THE DEVELOPMENT OF SUSTAINABLE PRODUCTS D. Ferrández, A. Zaragoza, C. Morón, J.A. Zuñiga	3173
SCIENTIFIC SKILLS OF PRE-SERVICE BIOLOGY TEACHERS: CRITICAL ASPECTS OF SOLVING INQUIRY-BASED TASKS K. Vojíř, A. Nejedlý	3179
THE ABILITY OF CZECH LOWER SECONDARY SCHOOLS' STUDENTS TO IDENTIFY AND OPERATIONALIZE A RESEARCH PROBLEM A. Nejedlý, K. Vojíř	3180
STUDENT ENGAGEMENT DESPITE COVID-19? EMPIRICAL FINDINGS FROM TEACHER EDUCATION M. Matischek-Jauk, H. Reicher, G. Krammer, C. Koschmieder, C. Stöckl, E. Amtmann	3186
FAIE - FAIR AI EDUCATION A. Dingli, L. Bondin, A. Biancardi Attard, O. Agius	3192
THE ROLE OF A PERSONAL BLOG AS A TOOL FOR MEANINGFUL LEARNING IN AN INTEGRATIVE COURSE E. Luzzatto, D. Fono	3198
STUDENT MOTIVATION IN A FACE-TO-FACE FORM AFTER COVID-19 M. Boroš, A. Velas	3199
TECHCLASS LEARNING MANAGEMENT SYSTEM COMMITMENT TO ACCESSIBILITY AND SPECIAL EDUCATION F. Eftekhari	3203
AN INTERSECTIONAL STUDY ON STUDENT LEARNING OUTCOME PERCEPTIONS F. Musella, G. Marinensi, B. Botte	3213
TECHCLASS APPROACH TO INFLUENCE ONLINE LEARNING IN THE ARAB WORLD USING ARTIFICIAL INTELLIGENCE F. Eftekhari, S. Khajehpour	3214
TRAINING TEACHERS ON HOW TO SHARE REMEMBRANCE WORK WITH THE STUDENTS THROUGH STUDY TRIPS TO AUSCHWITZ M. Brywnincky, L., Lacourt, A. Lambert	3222

STUDENT'S-INSTRUCTOR'S PERCEPTION OF GOOD TEACHING OF LIBERAL ARTS CLASSES IN KOREAN COLLEGE B. Jun	3229
COST – VALUE CONSIDERATIONS IN ONLINE EDUCATION PRACTICE: A VIRTUAL REALITY CASE STUDY L. Korenova, J. Hvorecky, A. Schmid	3233
VIRTUALLY IMPOSSIBLE? INTRODUCING VIRTUAL EXCHANGE COURSES IN A EUROPEAN UNIVERSITY ALLIANCE B. Kjellgren, M. Serrano Van Der Laan	3240
HOW DO PRIMARY SCHOOL TEACHERS INTEGRATE A SCHOOL VISIT TO A MEMORIAL MUSEUM INTO THEIR PEDAGOGICAL WORK? M. Bruyninckx, L. Santoro, O. Eppe	3246
THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGY FOR ACQUIRING EVERYDAY LIFE COMPETENCIES IN ADULTS WITH INTELLECTUAL DISABILITIES N. Jakopec, M. Kruzic	3253
A RESEARCH ON THE USE OF LEARNING BY DEVELOPING ACTION MODEL IN COMPUTING STUDIES IN FINLAND AND THE UK HEIS T. Lintilä, M. Zarb	3261
USER EXPERIENCE WITH EDUCATIONAL TECHNOLOGY IN AFRICAN SLUMS G. Stefansson, A.H. Jonsdottir	3270
LIVE WELL: THE HABIT-BASED WELLNESS PROGRAM FOR WORKING PROFESSIONALS M. Rigsby, Y. Liu, L.A. Fierro, B. Zoghi	3280
PROPOSED MEASURES OF SCHOOL-BASED INTERVENTIONS TO PROMOTE SOCIAL AND MENTAL SAFETY J.P. Peltola, E. Lindfors, A. Korkeaniemi, E. Luukka	3284
GAME COLLABORATIVE DEVELOPMENT FOR TEACHING-LEARNING EPIDEMIOLOGY IN A VETERINARY DEGREE C. Serna, J.A. Ruiz Santa Quiteria, R. de la Fuente, J. Álvarez, M.D. Cid	3285
THE DIGITAL REVOLUTION: IMPLICATIONS FOR DEVELOPMENT AND EDUCATION F. Durach, P. Dobrescu, L. Vladu	3292
4.0 COMPETENCES – PROJECT MANAGEMENT CATALYSTS FOR THE TIMES OF THE COVID-19 PANDEMIC J. Fila, M. Jeżowski, P. Poszytek	3301
LEADERSHIP AND LEARNING IN HYBRID WORK TEAMS: WHAT DO WE KNOW? S. Ebojoh	3305
THE IMPORTANCE OF SUBJECTIVE PARENTS AND PEERS NORMS ON ADOLESCENTS' PHOTO SELF-DISCLOSURE ON SNS U. Paluckaitė, K. Žardeckaitė-Matulaitienė	3315
DESIGN OF A COLLABORATIVE LEARNING TOOL TO IMPROVE THE ACADEMIC PERFORMANCE IN VEGETABLE FOOD TECHNOLOGY COURSE FOR THE DEGREE IN FOOD SCIENCE AND TECHNOLOGY M.D. Romero de Ávila, X.F. Hospital, C. Serna, M.D. Cid, E. Hierro	3321
EXPLORATORY RESEARCH INTO ENHANCING INCLUSIVE COLLABORATION SKILLS THROUGH GROUP ASSESSMENT AT BRIGHTON SCHOOL OF BUSINESS AND LAW 2022 R. Carden, S. Cork, A. Jones, L. Marks	3326
STUDENT-CENTERED SUPPORTED LEARNING: AN ALTERNATIVE FROM CONCEPT TO SPECIALIZED SERVICE D. Isoc	3335
REVIVING THE TEACHER IN A DIGITAL AGE: GROWING BEYOND THE COMFORT ZONE G. Lean, W. Barber	3345
HYDROSTATICS – PHYSICS TOPIC WITH MANY MISCONCEPTIONS S. Ziherl	3351
USING VIRTUAL REALITY TO PREPARE PARAMEDICS FOR EMERGENCIES A. Lochmannová	3358
THE RISE IN LEARNIFICATION AND SELF-EXPLOITATION IN ONLINE LEARNING G. Lean, W. Barber	3364

INCREASING STUDENT MOTIVATION IN PHYSICS LESSONS WITH AUGMENTED REALITY: ERASMUS+ KA201 PROJECT ARPHYMEDES S. Ziherl, K. Susman, J. Pavlin	3370
THE IMPORTANCE OF FIELD TRIPS IN ELECTRICAL ENGINEERING DEGREES: A RECENT EXPERIENCE AT THE ELECTRICAL MACHINES SECTION OF THE UNIVERSIDAD POLITÉCNICA DE MADRID K. Mahtani, J.M. Guerrero, J.R. Arribas, C.A. Platero	3377
'ROTA DOS SABORES' – SIMULATION-BASED LEARNING IN TOURISM, HOSPITALITY AND CATERING EDUCATION AND TRAINING A. Melo, C. Melo, S. Vasconcelos	3384
SUPPORTING TEACHERS FOR ONLINE TEACHING DURING COVID-19 PANDEMIC H.M.A. Olum, G.M.N. Isabwe	3391
RECENT REFLECTIONS FROM YOUNG UNIVERSITY TEACHERS ON THE DIRECTION OF FINAL PROJECTS IN THE FIELD OF ELECTRICAL ENGINEERING K. Mahtani, J.M. Guerrero, D. Talavera, C.A. Platero	3396
CEDH - A LIFELONG LEARNING PROGRAM TO IMPROVE HOTEL MANAGERS PATHS	3403
A. Melo, S. Vasconcelos, C. Melo	
IMPLEMENTATION OF CHALLENGE BASED LEARNING IN THE MECHANICAL ENGINEERING DEGREE	3404
I. Llop-Harillo, A. Pérez-González, J.F. Fuentes-Ballesteros, M.C. Mora, J. Andrés-Esperanza, J.V. García-Ortiz, P.J. Rodríguez-Cervantes, J.L. Sancho-Bru	
AUGMENTED CLASSROOMS: A GENERATOR OF AUGMENTED ENVIRONMENTS FOR LEARNING S. Cicconi, M. Marchese	3405
A MIXED-METHODS STUDY TO INVESTIGATE TEACHERS' AND STUDENTS' ATTITUDES TOWARD BLENDED LEARNING OF THE ENGLISH LANGUAGE IN SAUDI ARABIA A. Altayyar, M. Krauthaker	3414
VARIETY OF ROLES OF SPECIAL EDUCATIONAL NEEDS TEACHERS AS PERCEIVED BY SPECIAL EDUCATIONAL NEEDS TEACHERS K. Červenka, V. Vojtová	3415
ASSESSMENT OF STUDENT'S EXPERIMENTAL WORK IN PRIMARY SCHOOL PHYSICS M. Semič, K. Susman	3423
PROMOTING META-EMOTIONAL SKILLS WITH THE STANISLASKY METHOD M.R. Strollo, F. Marone, M. De Simone	3431
DIGITAL AND PAPER READING AND WRITING AT SCHOOL: STUDENTS' VOICE FROM AN ITALIAN SCHOOL A. Anichini, A. Nardi, R. Bartolini, F. Pestellini	3441
ROBOTS FOR BIODIVERSITY PROTECTION: AN EDUCATIONAL CLASSROOM PROJECT	3452
S. Palmieri, S. Brignone, L. Bano, G. Antonello, R. Grimaldi	
METHODOLOGY TO ASSESS HIGH SCHOOL STUDENTS LEARNING TO EVALUATE INFORMATION SYSTEM USABILITY S. Kubilinskiene, T. Liogiene, V. Judickaite-Zukovske	3460
COMPETENCES DEVELOPMENT OF "HEALTH CARE" STUDENTS IN RELATION TO INTENSIVE CARE P. Trendafilova, A. Dimitrova, K. Bogdanova, G. Tchaneva	3469
TEACHERS' EXPERIENCES OF SIMULATION WHEN TEACHING NURSING STUDENTS TO ENCOUNTER A SUICIDAL PERSON M. Ylitalo, E. Söderlund	3474
ADDRESSING SDG TARGETS THROUGH THE LENS OF AN INNOVATIVE SERVICE - LEARNING PROGRAMME E. Doone, M. Abreh, C. Mills, C. Sungdong	3480
LEARNER'S EXPERIENCES WITH EDUCATIONAL TECHNOLOGIES: DEVELOPMENT AND VALIDATION OF AN ASSESSMENT QUESTIONNAIRE G. López-Crespo, C. Ferrer-Pérez, M.C. Blanco-Gandía, N. Sánchez-Pérez, C. Fidalgo, S. Valdivia-Salas, T.I. Jiménez, M. Alcaraz-Iborra	3489
UPENDING THE STATUS QUO USING CROSS-MEDIA STORIES R. Testa	3494

DESIGNING PLAYFUL LEARNING MODEL TO PROMOTE NEW LITERACIES OF PRESCHOOLERS: THE FOCUS ON THE TEACHER'S MOTIVATIONAL SCAFFOLDING AND PRESCHOOLERS' MOTIVATIONAL TRIGGERS B. Ollonen, M. Kangas	3498
LIFE SATISFACTION IN HIGH-SCHOOL STUDENTS AND ITS RELATIONSHIP WITH THE CLASSROOM CLIMATE AND PSYCHOLOGICAL INFLEXIBILITY G. López-Crespo, S. Valdivia-Salas, A.S. Lombas, C. León-Moreno, E. Estévez, T.I. Jiménez	3499
FROM EDUCATIONAL IMPLICIT TO CRITICAL AWARENESS: REFLECTING ON "COGNITIVE LATENCY" THROUGH CINEMATIC NARRATION M. De Simone, F. Marone, M.R. Strollo	3504
AN EVALUATION OF THE EMPLOYMENT OF GAME-BASED LEARNING AS A TOOL FOR NUMERICAL EXERCISES AND LABORATORY PRACTICES REINFORCEMENT K.U. Antela, R. Sáez-Hernández, I. Adam-Cervera, P. García-Balaguer, A. Pastor, M.J. Luque, A.R. Mauri-Aucejo, M.L. Cervera, A. Morales-Rubio	3513
AN EXPERIENCE IN BREAKING THE GENDER GAP IN COMPUTER SCIENCE BY MEANS OF COMIC PANELS ABOUT FEMALE PIONEERS L. García-Cabrera, I. Pedrosa-García, J.M. Serrano	3521
ERASMUS + PROJECT: TRAINING IN FOOD LAW THROUGH AN INNOVATIVE METHODOLOGY USING NEW INFORMATION AND COMMUNICATION TECHNOLOGY TOOLS (TRIFLIM)	3527
A. Sánchez Cerezo, C. Vaz de Carvalho, V. Krestos, F. Pompei, J.M. Ferrer Villar	
DEVELOPMENT OF A SIMULATOR OF VISUAL SYSTEM ASSESSMENT FOR OPTOMETRY UNIVERSITY STUDENTS IN GAME-BASED LEARNING FORMAT K.U. Antela, P. García-Balaguer, R. Sáez-Hernández, I. Adam-Cervera, A. Pastor, A.R. Mauri-Aucejo, A. Morales-Rubio, M.L. Cervera, M.J. Luque	3532
ANALYSIS OF CONDITIONS AND FACTORS INFLUENCING THE INCIDENCE OF TRUANCY IN THE SCHOOL ENVIRONMENT I. Šuhajdová, J. Gubricová	3538
THE IMPORTANCE AND VALIDITY OF SCHOOL CLUBS FOR ROMA PUPILS FROM SOCIALLY DISADVANTAGED BACKGROUNDS IN THE SLOVAK EDUCATIONAL SYSTEM I. Šuhajdová, J. Gubricová	3545
DESIGN, IMPLEMENTATION AND EVALUATION OF DIDACTIC GAMES ON THE TOPIC OF LIGHT IN PRIMARY SCHOOL SCIENCE AND PHYSICS SUBJECTS L. Bevc, K. Susman, J. Pavlin	3546
VIDEO MATERIALS IN FOREIGN LANGUAGE LESSONS AS A MEANS OF MASTERING FOREIGN COMMUNICATION OF STUDENTS E. Andreeva, I. Korneva	3553
HOW TO CREATE TWO VARIANTS OF MATH TEST WITH MATH4TEACHER APPLICATION P. Vondráková, P. Beremlijski	3558
SAPERE AUDE! HOW THE DIAGNOSIS OF DISCARD CAN IMPROVE ANIMAL TRACK IDENTIFICATION SKILLS IN BIODIVERSITY STUDENTS F.J. Aznar-Avendaño, C. Bautista-Romero, A. Climent-Richart, S. Cordeiro-Vidal, J. Echeverría-López, E. Figueres-Herraiz, C.J. García-López, A. García-Pita, M.I. García-Sarmiento, A. González-Bernal, T. Granadal-Del-Río, P. Jiménez-Ribelles, B. Lapuente-Hernández, I. Laviada-Pérez, P. Lerma-Escrivá, D.E. Lopez-Santin, S. Pérez-Herrero, M. Peris-Bruno, A. Puchal-Mejías, J.C. Rincón-Alba, M. Segovia-Trufero, V. Tomás-Moya, A. Valeri, F.E. Montero-Royo	3565
INTERACTIVE TECHNOLOGIES AS A WAY TO INCREASE THE MOTIVATION OF UNIVERSITY STUDENTS TO LEARN A FOREIGN LANGUAGE E. Andreeva, I. Korneva	3575
A LEARNING JOURNEY TOWARDS SUSTAINABLE TOURISM EDUCATION – MAPPING AN INTERDISCIPLINARY PROJECT S. Vasconcelos, C. Melo	3582
THE IMPORTANCE OF ENGLISH PROFICIENCY: THE PARTICULAR CASE OF UKRAINE A.L. Luís, T. Kornieieva, R. Braz	3587
HOW COOL IS COLLABORATION? STUDENTS' PERCEPTIONS ON PARTNERING WITH THE TOURISM INDUSTRY C. Melo, C. Mouta, P. Pereira	3596
EVALUATING THE POTENTIAL OF USING AUTOMATED ACTION RECOGNITION FOR MONITORING STUDENT ACTIVITY IN TELE-EDUCATION E. Dimitriadou, A. Lanitis	3605

THE CASE STUDY ON VEX ROBOTICS CURRICULUM SYSTEM OF VEX ACADEMY BASED ON STEAM EDUCATION F. Ma, Z. Zhang	3610
TEACHING EXPERIENCE BASED ON FLIPPED LEARNING COMBINED WITH LABORATORY PRACTICE IN A DEGREE COURSE IN INDUSTRIAL ENGINEERING A. Martínez Romero, M. Díaz Heras, J.I. Corcoles	3616
THE RAPID TRANSITION FROM FACE-TO-FACE TO VIRTUAL TEACHING FOR LARGE GROUPS OF FIRST YEAR STUDENTS IN TIMES OF CRISIS E.L. Silva-Ramírez, J.F. Cabrera-Sánchez, A. Balderas	3622
APPLICATION OF INNOVATIVE TEACHING TOOLS IN A DEGREE COURSE IN INDUSTRIAL ENGINEERING M. Díaz Heras, A. Martínez Romero, E. Lacasa Fernández, J.F. Belmonte, J.I. Corcoles	3629
CRITICAL ANALYSIS ON THE USE OF SIMULATORS IN ENGINEERING DEGREES O. Diaz, E. Segredo-Morales, E. González	3636
POST-COVID EXPERIENCES OF DISTANCE EDUCATION IN HEIS: THE CASE OF VILNIUS UNIVERSITY IN LITHUANIA S. Šabanovas, K. Levanaitė	3640
WETLANDS AS A TEACHING MATERIAL FOR SECONDARY SCHOOL STUDENTS A.E. Rodríguez-Pérez, A.M. Blázquez	3649
PROBLEM-BASED LEARNING: USING SIMULATORS TO ANALYSE COMPLEX EXAMPLES	3655
O. Diaz, E. González, E. Segredo-Morales	
PRE-SERVICE TEACHERS TRAINING: ONLINE COURSE DESIGN TECHNOLOGY N. Batrova, M. Lukoyanova, Z. Filatova, N. Zakirova	3659
A COMPARISON OF INSIDER RESEARCH EXPERIENCES AND INSIDER RESEARCH LITERATURE WITHIN A PROFESSIONAL DOCTORAL STUDY D. Bell	3667
DEVELOPMENT OF TELEGRAM BOT FOR USE IN AN EDUCATIONAL ORGANIZATION Z. Filatova, N. Zakirova, M. Lukoyanova, N. Batrova	3672
MAPPING THE ENGLISH LANGUAGE AND LITERATURE STUDENTS' ATTITUDES TOWARDS ACTIVE READING STRATEGIES J. Hrinak	3679
ARE WE THERE YET? ASSESSING 360 VIDEO AND ASSOCIATED TECHNOLOGIES FOR WEB ACCESSIBILITY COMPLIANCE M. Taylor, A. Hill, H. Wharrad, K. Whittingham	3685
THE ANALYSIS OF ENGLISH LANGUAGE AND LITERATURE STUDENTS' ACADEMIC WRITING SKILLS AT THE TERTIARY LEVEL OF EDUCATION J. Hrinak	3686
EDUCATION AND TECHNOLOGY DURING THE PANDEMIC: THE AUTOBIOGRAPHICAL LABORATORY FOR NEW LIFE PROJECTS AND FOR LIFELONG LEARNING G. Aleandri, C. Fiorentini	3691
DESIGNING PRACTICAL CLASSES ON STOCK MARKETS THROUGH SIMULATION AND GAMIFICATION F. García García, F. Guijarro Martinez, J. Oliver Muncharaz	3701
THE IMPACT OF BILINGUAL EDUCATION ON STUDENTS' READING SKILLS R. Ševčík	3706
AN AI-BASED FRAMEWORK TO IMPROVE DIMENSIONS OF COMPUTATIONAL THINKING IN APPLIED MATH PROBLEMS N. Rigaud Téllez, P. Rayón Villela	3710
EVALUATION OF PEDAGOGICAL STRATEGIES BASED ON SOCIO-AFFECTIVE SCENARIOS: EXPERIENCE REPORT OF STUDENTS IN A VIRTUAL LEARNING ENVIRONMENT	3718
J.M. Akazaki, L. Rocha Machado, P. Alejandra Behar, A.C. Ribeiro Ribeiro, J. Silva da Silva Mendes, K.K. Araújo da Silva, T.P. Fagundes Grande	
IMPLEMENTATION OF PERSONALIZED LEARNING IN HIGHER EDUCATION: RESEARCH SYNTHESIS E. Osipovskaya, S. Dmitrieva	3725
AN EXPLORATION OF PROFESSIONAL IDENTITY IN HEALTH CARE LECTURERS IN A UK HIGHER EDUCATION INSTITUTE B. Ball	3736

USING AUDIOVISUAL CONTENT TO PROMOTE SOCIAL COMMITMENT IN THE UNIVERSITY STUDENT BODY: "ODS EN CORTO" B. Del Caz Pérez, A. Florez T	3737
A COMPARATIVE PRESENTATION OF TELECOM SERVICES TO INTRODUCE STUDENTS TO ESSENTIAL ISSUES REGARDING MODERN TELECOMMUNICATION NETWORKS G. Pagiatakis, N. Voudoukis, D. Uzunidis	3744
STUDENTS DIGITAL SERVICES IN MOROCCO	3749
A. Boujdad Mkadem, N. Benaissa PROPOSAL FOR THE COORDINATION AND INTEGRATION OF VIRTUAL METHODOLOGIES FOR LEARNING MANUFACTURING PROCESSES IN INDUSTRIAL ENGINEERING STUDIES F. Graffe Martform, V. Missel, L. Coelle, L.A. Narraio, M.G. Marishassa, L. Avilán	3753
E. García-Martínez, V. Miguel, J. Coello, J.A. Naranjo, M.C. Manjabacas, J. Ayllón OPTIMIZING SPATIO-TEMPORAL ORIENTATION IN CHILDREN'S SOCCER PLAY R. Visan, A. Dreve, M. Stoica	3763
VIRTUAL LAB SITE VISITS DURING PANDEMIC PERIOD AND THEIR USE IN POST PANDEMIC TIMES H. Hernandez-Carrasco	3771
AN INTEGRATED APPROACH TO TEACHING ANALOG-TO-DIGITAL CONVERSION AND ITS IMPLEMENTATION IN TELECOM NETWORKS G. Pagiatakis, N. Voudoukis, D. Uzunidis	3778
BUILDING A CHATBOT FOR RESOURCE NAVIGATION AND EDUCATIONAL PURPOSES: LESSONS LEARNED AND DEVELOPMENT OF A WHITE LABEL VERSION B. Batch, J. Roberts, A. Nakonechnyi, R. Allen, B. Batch	3783
A BIAS AGAINST ARCHITECTURE CREATED BY ARTIFICIAL INTELLIGENCE AMONGST COLLEGUE STUDENTS AND ITS IMPLICATIONS IN LEARNING D. Laija-Arellanes, J. Marín-Morales, J.L. Higuera-Trujillo	3784
DESIGN OF A MASSIVE OPEN ONLINE COURSE ON ELECTRICAL MICROGRIDS CYBERSECURITY AND OPTIMIZATION R. Melendez-Norona, M.M. Larrondo-Petrie	3789
CONTEXTUAL FACTORS FOR THE IMPLEMENTATION OF A CURRICULUM FROM THE POINT OF VIEW OF COMPUTER SCIENCE TEACHERS T.B. Wolff, A. Martens	3797
INDUSTRY 5.0 IN VOCATIONAL EDUCATION P. Marinič, P. Pecina	3805
FACTORS HINDERING EDUCATION FROM THE POINT OF VIEW OF EASTERN SLOVAKIA TEACHERS M. Bálintová, A. Barcziová, R. Machová	3812
SEATING ARRANGEMENT: A FLEXIBLE AND INFLUENTIAL VARIABLE IN THE ATTENTION OF UNIVERSITY STUDENTS M. Pérez-Chantes, M.L. Nolé, J.L. Higuera-Trujillo	3819
THE CLASSROOM IN NATURE: POSITIVE OR NEGATIVE EFFECTS ON ATTENTION? K.S. Orozco-Cruz, M.L. Nolé, J.L. Higuera-Trujillo	3826
LEARNING AND USING IMAGE CLASSIFIERS BY CREATING REAL MOBILE APPLICATIONS A. Zhou, D. Kim, H. Abelson	3834
GREEN VS FAST FASHION: AN ENVIRONMENTAL TRANSITION INDEX A. Violano, M. Merola, G. Savarese	3842
AN APPLICATION OF FLIPPED LEARNING DURING TECHNICAL DRAWING CLASSES D. Fait, P. Hofrichterová	3850
UNIVERSITY MEDIATION IN SPAIN: AN INNOVATIVE TOOL TO BUILD SKILLS TO IMPROVE WORKING RELATIONSHIPS AND CONFLICT RESOLUTION IN THE UNIVERSITY DOMAIN M.M. Aranda Jurado	3857
LOW FLOORS & HIGH CEILINGS: ENGAGING, ENHANCING, AND EVALUATING THROUGH VIRTUAL LEARNING TOOLS S. Thompson	3864
PERSPECTIVES OF THE EDUCATIONAL SYSTEM SEEN THROUGH CLOUD COMPUTING M.I. Vulpe, V.A. Enăchescu	3871

INTERCULTURAL EDUCATION OF POSTGRADUATE MEDIA STUDENTS: QUANTITATIVE RESEARCH OF INCLUSIVE UNACCEPTABLE TERMINOLOGY IN LIFESTYLE MEDIA OUTLETS J. Bozic, S. Stibohar, Z. Bagaric	3878
ALGEBRAIC THINKING AND COMPUTATIONAL THINKING IN PRE-UNIVERSITY CURRICULUM J. Bilbao, E. Bravo, O. García, C. Rebollar, C. Feniser, V. Dagienė, V. Masiulionytė-Dagienė, M.J.	3888
Laakso, A. Hakkarainen, I. Güven, Y. Gulbahar, Z. Pluhár, P. Sarmasági, A. Pears	
PROPOSAL FOR TRANSVERSALITY IN THE FINAL DEGREE PROJECT IN THE FACULTY OF BUSINESS ADMINISTRATION AND MANAGEMENT F. García García, F. Guijarro Martínez, J. Oliver Muncharaz	3896
EDUCATION AND TECHNOLOGY: NEW CHALLENGES IN THE FIELD OF HIGHER EDUCATION C. Feniser, J. Bilbao, C. Radu, A. Sadeh, E. Bravo, O. García, C. Rebollar	3900
MANAGING THE COMPLEXITY OF THE PRESENT TEACHING AND LEARNING SCENARIO: THE SMART LEARNING DESIGN APPROACH S. Sancassani, V. Baldoni, F. Brambilla, D. Casiraghi	3906
RESEARCH MAPPING IN THE TEACHING ENVIRONMENT: TOOLS BASED ON NETWORK VISUALIZATIONS FOR A DYNAMIC LITERATURE REVIEW L. Mercadé, F.J. Díaz-Fernández, M. Sinusia Lozano, J. Navarro-Arenas, M. Gómez, E. Pinilla-Cingle 1908.	3916
Cienfuegos, D. Ortiz de Zárate, V.J. Gómez Hernández, A. Díaz-Rubio BENEFITS OF SCIENTIFIC DISSEMINATION FOR THE IMPROVEMENT OF	3923
TEACHING SKILLS E. Pinilla-Cienfuegos, L. Mercadé, F.J. Díaz-Fernández, M. Gómez, J. Navarro-Arenas, M. Sinusia Lozano, D. Ortiz de Zárate, V.J. Gómez Hernández, A. Díaz-Rubio	
MATHEMATICS AND EMOTIONS: AN UNLIKELY CONNECTION C. Cruz, A. Breda	3928
SCHOOLS OF CARING: A QUALITATIVE RESEARCH IN THE MUNICIPAL PRESCHOOLS OF CORREGGIO (REGGIO EMILIA) I. Mussini	3936
INTERACTIVE SIMULATION MODELS FOR TEACHING AND LEARNING OF COMPUTER SCIENCE V. Stoffová, V. Gabalová	3945
EVALUATING EMPLOYEE RETENTION AND MITIGATING TURNOVER WITHIN AN ENGINEERING ORGANIZATION - A CAPSTONE CASE STUDY R. Hurst, R. Mody, B. Zoghi	3954
STRESS AND HAPPINESS: INVESTIGATING STRESS TOLERANCE AND HAPPINESS IN TECHNICAL PROFESSIONALS L.A. Fierro, Y. Liu, M. Rigsby, B. Zoghi	3964
BUILDING A THINKING CLASSROOM IN HIGHER EDUCATION: ACTION STEPS BY A MATHEMATICS PROFESSOR TO ENHANCE LEARNING IN AN UNDERGRADUATE GEOMETRY COURSE M. Parrott	3969
EFFICACY OF INDUCTIVE AND DEDUCTIVE TEACHING APPROACHES ON STUDENTS' RETENTION IN UPPER BASIC SCIENCE AND TECHNOLOGY IN BENUE STATE, NIGERIA C. Audu, M. Angura	3974
APPLICATION OF BEST PRACTICE INTRA-ORGANIZATIONAL ONLINE COLLABORATION IN A COLLABORATIVE VIRTUAL ENVIRONMENT C. Baumann, K. Herzig, S. Reeb	3980
USING 360-VIDEO SIMULATION TO ENHANCE INTERPROFESSIONAL TEAMWORK: THE CASE OF A WARD ROUND B. Bø, M.L.A. Larsen, K. Spanne, I. Tjoflåt	3991
GENIALLY AS AN INTERACTIVE TOOL IN THE INTEGRATED CURRICULUM IN BASIC BIOMEDICAL SCIENCES M.C. Carceller, M. Serna-García, E. López-Fernández, A. Pellín Carcelén, N. Flacco	3992
LERROTUZ: NEW TECHNOLOGIES, PROFESSIONALIZATION AND SUSTAINABLE DEVELOPMENT GOALS TOWARDS EDUCATIONAL INNOVATION IN THE UNIVERSITY TEACHING OF DRAWING M. Echevarria Aguirre, A. Berroya Elosua, J.A. Morlesín Mellado, I. Sagasti Alegria	3998
INTERNET OF THINGS AS A PEDAGOGICAL SUPPORT TOOL IN ARTIFICIAL INTELLIGENCE LEARNING IN HIGH SCHOOL C. Nascimento, A. dos Santos, V. Bremgartner, C. Melo	4007

GLOBAL COMPETENCE AT THE TECHNICAL UNIVERSITY: STAKEHOLDER PERSPECTIVES ON EDUCATIONAL OPPORTUNITIES AND THEIR EFFECTIVENESS B. Kjellgren, T. Richter, E. Arnó-Macià, K. Fleischhauer	4014
EVALUATION OF THE IMPACT OF THE RETURN OF ON-SITE ACTIVITIES AFTER THE PERIOD OF THE COVID-19 PANDEMIC IN A TECHNOLOGICAL TRAINING PROGRAM IN THE STATE OF AMAZONAS D. Pompeu Noronha Pontes, A. Mota, S. Marques	4023
ONLINE LEARNING IN STEM PROGRAMS: AN ANALYSIS OF CHALLENGES AND BEST PRACTICES IN HIGHER EDUCATION A. Ni, M. Van Wart	4029
DEVELOPMENT OF METHODOLOGY TO IMPROVE STUDENTS' INTELLECTUAL POTENTIAL T. Kornieieva, A.L. Luís	4030
ANALYSIS OF ICT COMPETENCIES AND SKILLS OF PRIMARY SCHOOLS INFORMATICS TEACHERS A. Katyetova, V. Stoffova	4040
AN EDUCATIONAL ENVIRONMENT IN E-LEARNING OF ENGINEERING: A PROPOSAL G. Arroyo Delgado, M.C. Espino-Gudiño, R. De la Torre Sánchez	4049
NEW TRENDS IN PRE-SERVICE TEACHER PEDAGOGICAL PRACTICE: CLASSES À LA CARTE PROJECT L. Brito, M.H. Martinho	4054
TECHNOLOGICAL, PEDAGOGICAL AND DISCIPLINARY KNOWLEDGE IN STUDENTS IN THE LAST CYCLE OF THE TEACHING CAREER E. Flores, I. Castro	4063
A NOVEL LOOK INTO ANIMATING OPHTHALMOLOGY EDUCATION A. Kan, M. Lin, H. Zhang, S. Spencer, J. Hepschke, B. Shulruf, A. Agar	4069
BRIDGING CULTURES AND HISTORIES THROUGH CONTEMPORARY EDUCATIONAL RESOURCES R. Horst, J. Craft	4079
CONTINUOUS TEACHER TRAINING FOR THE ACADEMIC ACTIVITIES MANAGEMENT SYSTEM IN THE FEDERAL EDUCATION NETWORK IN BRAZIL M.L. Sievert, A. Grunewald Nichele	4086
EDLS - AN ITERATION OF A DIGITALLY OPERATED ONE-ROOM SCHOOLHOUSE F. Badar, J. Mason	4092
ADVANCING STEM TEACHING AND LEARNING THROUGH THE FACULTY-LED PEDAGOGICAL JOURNAL CLUB K. Rawat	4100
A SHIFT IN TEACHER PREPARATION AND STUDENT AGENCY TO IMPROVE AT- RISK LEARNER ENGAGEMENT A. Harrison-Surgeon	4101
SUPPORTING FACULTY IN THE POST-COVID ERA: A CASE STUDY OF ONE UNIVERSITY E. Chernobilsky, T. Galoyan, W. Velhagen	4111
TOWARDS A CHANGE OF MENTALITY ON DIFFERENTIAL CALCULUS TEACHING E. Fautsch	4112
TRANSFER OF LEARNING IN MECHATRONICS EDUCATION FOR INDUSTRY 4.0 V. Mašek, D. Fait, R. Čermák	4118
SHARING A STORY OF PLACE AT THE UNIVERSITY OF TASMANIA C. Andersen	4125
THE ROLE OF CLASSROOM TEACHERS IN SCHOOL STUDENTS' CAREER GUIDANCE IN THE CONTEXT OF INCLUSIVE EDUCATION IN KAZAKHSTAN L. Butabayeva, G. Nogaibayeva, S. Ismagulova, M. Temirbayeva, A. Zhussip	4126
COMMON LEARNING AND APPLICATIONS PLATFORM IN RENEWABLE ENERGY HIGHER EDUCATION	4134
S. Voinea, A. Balan, M. Greene, J. Kaminski, L.L. Anton, J. Newson, B. Dobrica CROSS-CULTURAL ENGINEERING PROJECT: ASSESSMENT OF ENGINEERING EDUCATION PROGRAM BY OUTCOMES, SELF AND PEER EVALUATION AND	4141
CAREER TRACKING H. Hasegawa, M. Yamashita, S. Kongwat, H. Navas, D. Watanabe, A. Khantachawana	

THE REFERENCE MODEL FOR WORK-BASED LEARNING ANALYTICS K. Murtazin, O. Shvets, G. Piho, M. Meeter	4151
ONLINE TEACHING AND LEARNING IN THE CONTEXT OF COVID-19 IN VIETNAM: CASE STUDY H. Trinh, H. Mac, V. Nguyen, C. Nguyen	4158
ACCESS TO HIGHER EDUCATION: EFFECTIVELY MAINTAINED INEQUALITY T. Chirkina, Y. Tyumeneva, Y. Kuzmina	4167
POTENTIAL AND CHALLENGES FOR ONLINE AND BLENDED LEARNING IN ARTS EDUCATION; IMPLICATIONS FOR DEVELOPING A TRANSFORMATIVE PEDAGOGICAL FRAMEWORK V. Pavlou, N. Eteokleous	4168
THE EFFECT OF TEACHERS' (DE)MOTIVATING TEACHING STYLE ON ENGAGEMENT AND ACHIEVEMENT IN MATHEMATICS: LITHUANIAN CASE S. Raižienė, I. Gabrialavičiūtė, R. Garckija	4174
DEVELOPMENT OF DEMAND DIVERSION MODEL FROM CONVENTIONAL CONSTRUCTION METHODS TO 3D CONCRETE PRINTING (3DCP) M.M. Valiente López, B. Ahadi	4175
THE POTENTIAL OF AUTOBIOGRAPHY AS EXPERIENTIAL LEARNING IN THE EXAMPLE OF LINGUISTICS I. Tragel, L.M. Komissarov	4186
NEW VIRTUAL REALITY TECHNOLOGIES IN BUILDING M.M. Valiente López, M.A. Vidales Barriguete, P. Aguilera Benito, C. Pina Ramirez, M. Álvarez Dorado, A. Zargoza Benzal, T. Gil López, P. Palmero Cabezas, I. Bach Buendia	4190
INTERDISCIPLINARY COMPETENCE OF INNOVATION IN THE EDUCATIONAL PRACTICE OF MUSIC TEACHERS OF GENERAL EDUCATION WITHIN THE FRAMEWORK OF STUDIES I. Vilde, E. Vītols	4196
ACCESSIBILITY OR QUALITY IN MEXICAN COLLEGES M.E. Salazar Herrera, D.E. Aguirre Bautista, M.O. Castro Solano, D.M. Betancourt Trevedhán	4203
DO GAMIFICATION AND FLIP TEACHING HAVE AN IMPACT ON LEARNING? Y. Sánchez-Palencia, F. Barrio-Parra, L.A. Torres, M. Izquierdo-Díaz, L. Arévalo-Lomas, D. Bolonio, M. Sánchez-Canales, L.J. Fernández-Gutiérrezdelalamo, P. Segarra-Catasús, M.J. García-Martínez, L. Canoira	4210
CURRENT TRENDS OF 21ST CENTURY SKILLS IN TERMS OF LABOR MARKETS' DEMANDS: TRIFOLD RESEARCH IN GREECE I. Lazaridou, M. Staboulis	4220
LEARNING ITALIAN AS SECOND LANGUAGE DURING PANDEMIC EMERGENCY: CHALLENGES AND IMPLICATIONS FOR CHINESE LEARNERS T. Sbardella, Y. Zheng	4230
DEVELOPMENTS AND CHALLENGES IN SOCIAL REINTEGRATION OF DELINQUENT TEENAGERS M. Tomita, R. Ungureanu	4237
EXPLORING FACTORS INFLUENCING PRE-SERVICE TEACHERS' DESIGN FOR TEACHING P.Y. Lin	4238
CONTINUING PEDAGOGICAL DEVELOPMENT FOR ACADEMIC STAFF: THE CASE OF LATVIA UNIVERSITY OF LIFE SCIENCES AND TECHNOLOGIES B. Briede, N. Vronska, V. Dislere	4242
WHAT DOES IT MEAN TO DECOLONISE COMPUTING AND IT - ANOTHER DUMB BUZZWORD OR RE-ENVISAGING ALL CULTURES AND KNOWLEDGE SYSTEMS FOR HOW THE WORLD IS FRAMED? Z. Tompkins, M. Ramage	4250
THE USE OF EDUCATIONAL MEDIA IN TEACHING BIOLOGY AT THE LOWER SECONDARY SCHOOLS N. Porubová, I. Červenková, Z. Sikorová	4262
ENHANCING COORDINATION AMONG SUBJECTS THROUGH HANDS-ON LABORATORY APPROACH R. Sanchis, S.C. Cardona, V.G. Lo-Iacono-Ferreira, C. Quijada	4271
DIDACTIC PROPOSAL TO LEARN MATHEMATICS, ELECTRONICS, AND MECHANICS BY WIND TURBINE MODELLING J.E. Sierra-Garcia, M. Santos, R. Garcia-Ausin	4280

USING PERSONALITY TRAITS TO FORECAST GRADES OF COMPUTER PROGRAMMING STUDENTS I. Pesovski	4286
APPLYING THE PRODUCT LIFECYCLE MANAGEMENT METHOD IN THE PROJECTS OF ENGINEERING STUDENTS G.M. Moraru	4287
ANALYSIS OF THE STUDENTS' IMAGINARY ABOUT A MUSIC TECHNOLOGY FOLLOWING A TPACK-BASED EDUCATIONAL INTERVENTION T. Thayer, J. Tejada	4294
HUMANITARIAN ROBOTICS: A PROBLEM-DRIVEN INTEGRAL DIDACTIC PROPOSAL FOR SECONDARY EDUCATION J.E. Sierra-Garcia, R. Gómez-Santamaría, M. Santos, R. Garcia-Ausin	4302
PEDAGOGICAL COMPETENCE OF STUDENTS - FUTURE TEACHERS OF PROFESSIONAL (VOCATIONAL) SUBJECTS TO PLAN A TEACHING UNIT I. Ištvan	4308
DEVELOPING PUBLIC SPEAKING SKILLS IN EUROPEAN EDUCATION AREA STUDENTS: REFLECTIONS FROM SEVEN YEARS OF EXPERIENCE M.I. Rodríguez-Cáceres, E.M. Cuerda Correa, A. Serrano Pérez, J.C. Corchado Martín-Romo, N.M. Mora-Díez, J. Zarza Belmonte, A. Flores Regalado, J.A. Sansón Martín, R.F. Martínez Vázquez, M.E. Martín-Navarro, C. Fernández-González, C.J. Durán Valle, M. Alexandre-Franco, R. Pardo-Botello, M.I. Parra Arévalo, E. Viñuelas-Zahínos, M.V. Gil Álvarez, E. Botello Cambero, M. Antón Martinez, F. Luna Giles, G. Cumplido Laso, M.L. Sánchez Mendoza, M. Martínez Pizarro, M.A. Obregón Muñoz, J. Espino Palma, M. Garrido Álvarez, J. Vaquero Martinez	4315
STUDENTS STRUGGLE IN COMING BACK TO FACE-2-FACE TEACHING IN EVIDENCE BASED GOOD TEACHING SETTINGS A. Dannecker, U. Hanke	4323
AN EXAMPLE TOWARDS THE RESPONSIBLE USE OF AI FOR HIGHER EDUCATION: EXPLAINABLE STUDENT DROPOUT PREDICTIONS W. Casteels, L. Herrewijn, E. De Bruyne	4330
HOW FAR ARE SCHOOL COMMUNITY'S MENTAL MODELS FROM SCIENTIFIC MODELS? TEACHERS, PRE-SERVICE TEACHERS AND STUDENTS' IDEAS ABOUT FORESTS AND WATER A. Zabaleta, I. Irusta, O. Barrutia, U. Ortega-Lasuen, J.R. Díez	4337
21ST CENTURY SKILLS AND INITIAL TEACHER TRAINING PROGRAMS IN PORTUGAL – WHAT DO WE KNOW? A. Loução, A. Pedro	4343
ANALYSIS OF THE CONTRIBUTION THAT UNIVERSITY STUDENTS BELIEVE THEY CAN MAKE FROM THE DEVELOPMENT OF THEIR FUTURE PROFESSION TO THE ACHIEVEMENT OF THE SDGS R. Oltra-Badenes, V. Guerola-Navarro, H. Gil-Gomez, D. Botella-Carrubi, J.A. Gil-Gomez	4348
USING THE CONCEPT OF THIRD SPACES TO TEACH UNDER-SERVED CHILDREN THE CRITICAL SKILLS NEEDED FOR UPWARD SOCIO-ECONOMIC MOBILITY A. Roy Chowdhury, P. Narasimhan, S. Prasad	4353
AUTOMATION OF KAHOOT! BY THE HUMANOID ROBOT PEPPER – COMPARING RESULTS FROM CLASSES – ROBOT VS. LECTURERS A. Dannecker, D. Hertig	4361
THE OPINIONS OF ENGINEERING STUDENTS REGARDING SUSTAINABILITY G.M. Moraru	4369
INTEGRATING DISTANCE LEARNING COURSES DEVELOPED BY THE EUROPEAN PROGRAM FOR HUMAN RIGHTS EDUCATION FOR LEGAL PROFESSIONALS IN STUDY PROGRAMS OF HIGHER EDUCATION INSTITUTIONS A. Nastas, O. Dorul	4375
PRIMARY SCHOOL STUDENTS' ABILITY TO NAME NATIVE AND EXOTIC ANIMALS USING BIOME PHOTOS: A PRELIMINARY STUDY O. Barrutia, O. Pedrera, U. Ortega-Lasuen, J.R. Díez	4380
COMPARATIVE ANALYSIS OF THE REAL KNOWLEDGE ABOUT THE SDGS THAT STUDENTS HAVE VERSUS THE KNOWLEDGE THEY THINK THEY HAVE V. Guerola-Navarro, R. Oltra-Badenes, H. Gil-Gomez, D. Botella-Carrubi, J.A. Gil-Gomez	4386
ASSESSING SCIENCE RELATED ATTITUDES IN GREEK UPPER HIGHSCHOOL STUDENTS V. Gkaskas, F. Hatzikraniotis	4393

TASK-CENTERED APPROACH TO NURTURE SCIENCE TEACHERS' SELF-EFFICACY AND ATTITUDES TOWARD APPLYING ROBOTICS D. Saad, I. Verner, R.B. Rosenberg-Kima	4401
PLANNING AND ITS RELATIONSHIP WITH MANAGEMENT PROJECTS IN THE PROVINCE OF BARCELONA J.C. Escandon, T. Mentado, N. Serrat	4407
MODEL OF ANALYSIS AND EDUCATIONAL PLANNING: A PROPOSAL FOR IMPROVEMENT FOR THE DIRECTION AND MANAGEMENT OF EDUCATION CENTERS J.C. Escandon, T. Mentado, N. Serrat	4415
PERSPECTIVES OF PSYCHOPHYSICAL CONDITION LEADERSHIP - DEVELOPMENT METHODS D. Ullrich, J. Stříbrný, V. Pokorný, J. Horváth	4423
DESIGNING AN ACADEMIC ITALIAN LMOOC FOR SLAVIC-SPEAKING STUDENTS A. Pakula	4428
"TEACH ME HOW TO LEARN" STRATEGIES USED TO PROMOTE PERFORMANCE AND WELLNESS IN FIRST YEAR MEDICAL SCHOOL IN THE UAE S. O' Sullivan, S. Ismaiel, S. Kanj, D. Al Ghafari, H. Ibrahim	4435
ASSESSING SUMMARY WRITING: QUANTITY, QUALITY OR BOTH? A. Piu, C. Angelini, S. Testa	4440
IMPLEMENTATION AND EFFECTIVENESS OF STUDY STRATEGIES IN MEDICAL SCHOOL; UNDERSTANDING THE WAY STUDENTS LEARN AND RETHINKING HOW WE TEACH THEM S. O' Sullivan, S. Ismaiel, S. Kanj, D. Al Ghafari, H. Ibrahim	4444
SPEAKING WITHOUT WORDS: ENHANCING INTERCULTURAL AWARENESS THROUGH GAMIFICATION AND COOPERATIVE LEARNING A. Pakula, T. Sbardella	4449
BRING YOUR OWN DEVICE (BYOD) – AN OPPORTUNITY FOR EDUCATION INSTITUTIONS TO STEP FORWARD N. Angelova	4455
USING EDUCATION TECHNOLOGIES TO SUPPORT CHILDREN WITH VISUAL AND/OR HEARING DIFFICULTIES IN THE EAST ASIA AND PACIFIC REGION L. Pynnönen, C. Song, M. Spiezio, N. Yarrow	4463
THE PATH FROM ANALYSIS TO DESIGN IN THE TEACHING EXPERIMENT WITHIN THE ENVIRONMENTAL DESIGN COURSE R. Franchino, C. Frettoloso, S. Zerari	4472
ECOLOGICAL LITERACY IN EARLY CHILDHOOD G. Marci-Boehncke, M.O. Rath, M. Rusch	4478
THE JOY OF TEACHING: THE CONNECTION BETWEEN TEACHING EXPERIENCE, JOB SATISFACTION, AND SELF-EFFICACY F. Ortan, J.F. Kiss, C. Simut	4488
URBAN SCALE ANALYSIS AND MAPPING: AN EDUCATIONAL EXPERIENCE OF GEOGRAPHIC DATA IN SITU SURVEY N. Pisacane, S. Zerari	4495
ANALYSIS OF RISK COMMUNICATION KNOWLEDGE IN COMMUNICATION DEGREE STUDENTS E.C. Vayas-Ruiz, N. Guamán-Guadalima, Á. Jiménez-Sánchez	4505
SUPERVISION, REFLECTION, AND ASSESSMENT OF STUDENTS IN UNIVERSITY PRACTICAL EDUCATION AND THE PROCESS OF THEIR IDENTIFICATION, APPLICATION, AND ADAPTATION TO THE PROFESSION OF SOCIAL PEDAGOGUE K. Liberčanová, A. Lengyleová	4513
ART&MATHS FANZINES: WRITING AND SELF-PUBLISHING AT THE SERVICE OF MATHEMATICS AND ART EDUCATION E. Martínez-Jiménez, C. González-Martín	4523
SELF-ASSESSMENT AND PEER ASSESSMENT: STRATEGY FOR DEVELOPING ORAL COMPETENCE IN HIGHER EDUCATION D. Baptista	4531
EXPLORATION OF PRE-SERVICE TEACHERS' EXPERIENCES OF ROBOTICS AND CODING WITHIN STEAM SUBJECTS THROUGH A MENTORSHIP PROGRAMME AT A NON-PROFIT ORGANISATION D. Robertson. A. Kirsten	4539

DEVELOPING A STUDENT ENGAGEMENT AND SUCCESS FRAMEWORK FOR ENGINEERING EDUCATION N. Fitzgowald, C. Casaida, V. O'Sullisan, I. Mourie, I. Walah, F. O'Connall, F. Royle	4546
N. Fitzgerald, C. Cassidy, K. O'Sullivan, I. Morris, J. Walsh, E. O'Connell, F. Boyle	4556
CORROSION OF MATERIALS FROM A TEACHING POINT OF VIEW L.B. Peral, A. Díaz, J.M. Alegre, I.I. Cuesta	4556
EVALUATE, INTERVENE AND MONITOR IN THE PRIMARY SCHOOL - AIM1 A.R. Silva, P. Mota, S. Gonçalves, R. Leite, A. Monteiro	4562
SELFIE FOR WORK-BASED LEARNING: A TOOL TO SUPPORT VET INSTITUTIONS AND COMPANIES BECOME FIT FOR THE DIGITAL AGE C. Herrero	4570
USING THE "ALPHABET GAME" TELEVISION SHOW FOR MASTERING THE SPECIFIC VOCABULARY OF FOOD TECHNOLOGY H. Gómez-Llorente, E. Pérez-Esteve, E. Martín-Esparza	4571
GRAPHIC INTERFACE DEVELOPMENT FOR TEACHING ROBOTICS RELATED COMPUTER VISION TECHNIQUES A. Mendez, A. Mora, R. Barber	4576
COURSE-AGNOSTIC EARLY IDENTIFICATION OF STUDENTS AT RISK FROM MOODLE ACTIVITY PATTERNS R. Santos, R. Henriques	4585
ARE STUDENTS READY TO INCLUDE SDG INTO THEIR PROFESSIONAL PRACTICE? A CASE OF STUDY WITH AGRONOMIC ENGINEERING STUDENTS E. Martín-Esparza, H. Gómez-Llorente, A. Argüelles, C. Lull, E. Pérez-Esteve	4593
VOCATIONAL DEVELOPMENT AS AN EMPOWERING TOOL IN DECISION MAKING A. Monteiro, R. Leite, P. Mota, S. Gonçalves, A.R. Silva	4599
ONLINE TEACHING DURING COVID 19: HOW TO GET THE BEST OUT OF IT M. Oliveira, T. Pataco	4605
3 GAMES 4 CODING – DO GIRLS FEEL WELCOME? L. Sällvin, P. Mozelius, N. Humble	4612
PROMOTING INCLUSION BY BRINGING EDUCATION OUT-DOORS: OUTCOMES OF EXPLORATORY RESEARCH WITH TEACHERS M. Moscato, F. Pedone, G. Ferrara	4621
ACTIVE LEARNING APPROACHES FOR PROMOTING STUDENTS' AWARENESS ON SUSTAINABLE DEVELOPMENT: AN EXPERIENCE IMPLEMENTED IN SUBJECTS ON ENVIRONMENTAL MANAGEMENT J. Molina-Azorin, J.J. Tari, M.D. Lopez-Gamero, J. Pereira-Moliner, E.M. Pertusa-Ortega	4627
INCLUSION THROUGH TRAINING AND METHODOLOGY OF ADAPTED PHYSICAL EDUCATION G. Ferrara, F. Pedone, M. Moscato	4631
IMPOSSIBLE PROFESSION: TEACHERS' PROFESSION THROUGH GENDER LENSES M. Chkotua, E. Pipia, M. Bandzeladze, N. Parjanadze, N. Tvalchrelidze, I. Mesiridze	4637
MANAGING UNCERTAINTIES IN DIDACTIC DESIGN L.M. Capolla, P.G. Rossi, M. Pentucci	4645
DISTANCE VOCATIONAL TRAINING IN GREECE: THE SOCIO-PSYCHOLOGICAL EFFECTS ON THE GREEK STUDENTS N. Nikolova, P. Anagnostou	4652
THE PROBLEM OF PROBLEM IN PROBLEM-BASED LEARNING: A CLOSER LOOK AT THE BASICS S. Mubaraz, J. Heikkilä	4660
ON THE DEVELOPMENT OF A VIRTUAL REALITY TEACHER TRAINING APPLICATION: INSPIRED BY EDUCATORS, DESIGNED FOR EDUCATORS K.E. Stavroulia, I. Álvarez Testillano, A. Pyrini, M. Debattista, T. Zarraonandia Ayo, M. Sanz Prieto, P. Díaz Pérez, A. Lanitis	4666
A TRIGGER OR A MAGNIFYING GLASS? COVID-19 AND THE PSYCHO-SOCIAL WELL-BEING OF ACADEMICS IN HIGHER EDUCATION: A SOUTH AFRICAN CASE STUDY R. Quilling, U. Singh, C. Gerwel Proches	4673
NEEDS AND REQUIREMENTS OF TEACHERS, LEARNERS AND ADMINISTRATIVE STAFF FOR AI BASED MENTORING TOOLS IN HIGHER EDUCATION J. Zawidzki, M. Bez, O. Jalilov	4674
MULTIMODAL TEXTS: THE WAY TO ENGAGE STUDENTS IN EFL CLASS ACTIVITIES I Variable A Abdrafikana F Ginadiena T Pinemana	4680

ENGLISH AS A FOREIGN LANGUAGE LEARNERS' ATTITUDES TOWARDS DATA- DRIVEN LEARNING OF GRAMMAR M. Chkotua, N. Tsulaia	4690
THE LAW IS BECOMING THE NEW SCHOOL MASTER: OR CAN AN UNREASONABLE BURDEN ON SCHOOLS BE JUSTIFIED E. Kozina	4698
LANGUAGE AND LEARNING: AN INTERDISCIPLINARY ANALYSIS OF CRITICAL THINKING SKILLS THROUGH PORTUGUESE LANGUAGE L. Dantas, C. Galego, J. Oliveira, E. Santo, R. Lambo, M.T. Costa, M.J. Rios, R. Lobão	4705
THE ENGAGE-STUDY-ACTIVATE METHOD: A NEW ANGLE AT ITS IMPLEMENTATION IN EFL CLASS I. Yarmakeev, A. Abdrafikova, E. Gimadieva, T. Pimenova	4706
'THE E-LEARNING QUAGMIRE OF COVID-19: AN ACADEMIC PERSPECTIVE D. Cranfield, I. Venter, A. Tick, R. Blignaut, K. Renaud	4716
"TOGETHER": A NEW COURSE FOR IMPROVING INTERPROFESSIONAL COLLABORATION AMONG HEALTH PROFESSION STUDENTS M. Avrech Bar, M. Pade	4726
QUALITY ASSURANCE MECHANISMS IN REGARDS TO WORK-BASED LEARNING – FINDINGS FROM INSTITUTIONAL ACCREDITATION IN CROATIA (2019–2021) I. Petrušić, J. Dragičević	4727
DEVELOPMENT AND VALIDATION OF A SCALE TO MEASURE ARTIFICIAL INTELLIGENCE LITERACY ATTITUDES Y.Y. Wang, Y.W. Chuang	4733
DEVELOPING CRITICAL THINKING IN SECONDARY EDUCATION L. Dantas, C. Galego, J. Oliveira, E. Santo, M. Costa, M.J. Rios, R. Lambo, R. Lobão	4734
A PATTERN TO DESIGN AND DEVELOP LEARNING SOLUTIONS IN COMPANY ENVIRONMENT M. Norscini, P.G. Rossi, M. Amicucci	4735
IMPROVING LABORATORY SESSIONS FOR ENGINEERING STUDIES BY USING ICT D. León, V. Valiño, B. Castells, D. Serrano-Jiménez, I. Amez, J.M. Guerrero, Y. Sánchez-Palencia, B. Biosca	4744
THE IMPACTS OF COVID-19 POLICES AND PRACTICES ON OUR MOST VULNERABLE STUDENTS: EXPANDING THE CONVERSATION ON SYSTEMIC EDUCATIONAL INEQUITIES IN THE US E.D. Cramer, M. Little	4752
ONLINE EMOTIONS ON DISTANCE LEARNING: AN ANALYSIS DURING THE COVID-19 PANDEMIC M.E. Soares Carvalho, D.M. dos Santos, T.B. Pontes, G. Lobato Ferreira de Miranda	4759
EXPERIENCES IN DIGITALIZATION OF MATHEMATICS LEARNING IN HIGHER EDUCATION	4765
B. Joksimoski, A. Popovska-Mitrovikj, V. Dimitrova, I. Chorbev « I LEARN THE MOST WHEN I HAVE SOMEONE TO PRACTICE WITH» - STUDENTS' EXPERIENCE WITH ONLINE TEACHING FROM AFTER AND FURTHER EDUCATIONS J.E. Ølmheim, A.G. Nilsen	4773
A FRAMEWORK FOR THE DEVELOPMENT OF EDUCATIONAL GAMES J. Klerck, T. Benadé, J. Liebenberg	4774
THE USE OF SHADOW THEATER TO PROMOTE THE MOTIVATION OF CHILDREN WITH AUTISM SPECTRUM DISORDERS TO ENGAGE IN EDUCATIONAL ACTIVITIES J. Mudėnienė	4783
OPEN MINDSET AS A LINK BETWEEN CLASSIC AND MODERN IN EDUCATION M.R. Jianu, V. Gridan	4789
TRENDS IN THE PROSOCIAL BEHAVIOUR OF UNIVERSITY STUDENTS FROM THE POINT OF VIEW OF STUDYING A SCIENCE FIELD - A REFLECTION OF CRITICAL AND MORAL REASONING M. Kosturková	4793
THE SOLVING STRATEGIES OF MATHEMATICAL TASKS USED BY PROSPECTIVE PRIMARY EDUCATION TEACHERS A. Prídavková	4800
BLENDED LEARNING EXPERIENCE POST-COVID Z. Kavazovic	4806

STUDENT APPROACH TO LEARNING IN DIFFERENT MOMENTS OF FINAL SUBJECT OF A BACHELORS'S DEGREE N. Andrés-Colás, M. Leiva-Brondo	4815
INCORPORATION OF DIFFERENT AND PURPOSEFUL STUDENTS' ENGAGEMENT STRATEGIES TO ACHIEVE DEEP LEARNING EXPERIENCES B. Matos, L. Gonçalves, M. Rodrigues, F. Ribeiro, V. Carlos, M. Fardilha	4823
THE TECHNOLOGICAL AND ENVIRONMENTAL DESIGN IN THE DIDACTIC EXPERIENCE OF ARCHITECTURAL DEGREE THESIS R. De Martino, R. Franchino, C. Frettoloso	4824
MORAL COMPETENCE OF STUDENT TEACHERS IN SLOVAKIA - AN ANALYSIS IN RELATION TO THE INTEGRITY OF CRITICAL AND MORAL THINKING M. Kosturková	4831
MATHEMATICAL LEARNING THROUGH PROBLEM SOLVING: PÓLYA'S HEURISTIC METHOD IN THE TEACHING OF BASIC EDUCATION PRE-SERVICE TEACHERS E. Martínez-Jiménez, A. Guerreiro	4836
INTERNATIONAL COOPERATION AND EXTERNAL EVALUATION OF PROGRAMS LEAD TO QUALITY IMPROVEMENT I. Pkhakadze, T. Kordzadze, M. Sturua, K. Kiknavelidze, R. Gvenetadze	4845
POTATO VARIETY TESTING CONDUCTED BY BASIC VOCATIONAL TRAINING PUPILS AND PUPILS WITH FUNCTIONAL DIVERSITY FROM ADAPTED BASIC VOCATIONAL TRAINING PROGRAMS T. Osorio, D.M. Peraza, A. Herrero	4846
AN INTRODUCTION TO APPRENTICESHIP LEARNING BY TEACHING AN AGENT HOW TO PLAY A VIDEO GAME V. Muñoz, A. Prados, R. Barber	4850
QUALITY ASSURANCE SYSTEM IN A HIGHER EDUCATION CENTRE AND ITS MANAGEMENT BASED ON GOOGLE WORKSPACE TOOLS J. De la Casa Cárdenas, M. Gómez González, F.J. Iglesias Godino, A.B. López García, D. Martínez Muñoz, F. Suárez Guerra, M. Valverde Ibáñez	4858
MAKING EDUCATIONAL TECHNOLOGY ENHANCE THE COLLABORATIVE WORK IN DIFFERENT LEARNING SPACES T. Talmo, R. Støckert	4867
SPECIFICS OF DIGITAL LITERACY DEVELOPMENT DURING THE READING PROCESS IN DIGITAL LEARNING ENVIRONMENTS IN PRIMARY SCHOOL M. Kerneža, M. Kordigel Aberšek	4877
FIRST STEPS ON THE EDUCATIONAL USE OF NODE-RED AS INDUSTRIAL 4.0 MIDDLEWARE FOR AUTOMATION AND SUPERVISION DISCIPLINES F.J. Folgado, I. González, A.J. Calderón	4884
HIGHER EDUCATION STUDENTS' USE OF VERBAL AND NONVERBAL COMPONENTS IN LEARNING FROM TEXT J. Kojdecká, I. Červenková, A. Hrušková, M. Václavík	4891
PROJECT MANAGEMENT IN PUBLIC ADMINISTRATION: ICT USAGE IN THE PEDAGOGICAL PROCESS Ž. Kotnik	4899
THE STATE OF OPEN EDUCATIONAL RESOURCES (OER) IN SWEDISH HIGHER EDUCATION: A CASE STUDY S. Arveklev, W. Jobe	4908
IMPROVING PEDAGOGICAL PRACTICES THROUGH EMPIRICAL EVIDENCE: REPORTING ON INSTRUCTOR TRAININGS INVESTIGATING EDUCATIONAL TECHNOLOGY IN COLLABORATIVE WORK T. Talmo, A. Valenti, M. Sapountzi, N. Navarro, A. Tsiakara	4918
IOT SOFTWARE FOR INDUSTRIAL MONITORING IN SUPERVISORY SYSTEMS COURSE: INITIAL EXPERIENCE WITH GRAFANA I. González, A.J. Calderón, F.J. Folgado	4925
ECOTRAINING EDUCATION FOR YOUNG PEOPLE IN SOCIAL VULNERABILITY IN BRAZIL S. Andrade, V. Simao, V.L. Silva	4932
SOCIAL INNOVATION TRAINING AND INTERGENERATIONAL CO-DESIGN FACING THE CHALLENGE OF LONGEVITY N. Gerbaudo-González, S. Feijóo-Quintas, M. Gandoy-Crego, M.C. Gutiérrez-Moar, M.J. Diz-López, D. Facal	4938

TECHNICAL, EMOTIONAL AND FINANCIAL PROBLEMS ASSOCIATED WITH ONLINE LEARNING DURING THE COVID-19 PANDEMIC - A CASE STUDY IN THE CZECH REPUBLIC M. Beranová, M. Navrátilová	4946
CREATING COMIC-STYLE IMAGES USING DEEP LEARNING-BASED TEXT-TO-IMAGE MODELS TO MAKE SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS (STEM) DISCIPLINES ACCESSIBLE TO THE YOUNG GENERATIONS V. Rodriguez-Ruiz, D. Garnacho, D. Moratal	4947
ARE THE CHALLENGES OF A NON-DIGITALIZED THESIS PROCESS TRANSCULTURAL? A. Lagstedt, C. Aboagye Da-Costa, K. Tsupari, L. Leite	4955
TEACHING TECHNOLOGY OF ARCHITECTURE BOTH IN MASTER'S DEGREE AND DEGREE COURSE: COMPARING EXPERIENCES R. Franchino, C. Frettoloso, S. Rinaldi	4961
DIAGNOSIS OF TRAINING IN SUSTAINABLE DEVELOPMENT GOALS IN THE HIGHER TECHNICAL SCHOOL OF INDUSTRIAL ENGINEERING (ETSII) M. Martínez-Gómez, S. Gallardo, J.F. Villanueva, M. Sancho, C. Lull, A. Esteso, A. Vallés-Lluch, A. Lapuebla-Ferri, M.M.E. Alemany, A. Ortíz	4969
USING ORACLE QUERY PLAN FOR AUTOMATED ASSESSMENT OF SQL D. Nelson, K. McGarry, M. Proud	4978
THE EFFECT OF A GESTALT PERSONAL DEVELOPMENT GROUP PROGRAM ON UNDERGRADUATE STUDENTS' AWARENESS LEVELS, EMOTIONAL INTELLIGENCE, AND LIFE SATISFACTION A. Kyvelou, G. Tsitsas	4983
DIAGNOSIS OF AWARENESS OF THE SUSTAINABLE DEVELOPMENT GOALS AMONG STUDENTS AND LECTURERS IN HIGHER EDUCATION ENGINEERING SCHOOL	4990
A. Esteso, C. Lull, A. Lapuebla-Ferri, J.F. Villanueva, M. Sancho, S. Gallardo, A. Vallés-Lluch, M. Martínez-Gómez, M.M.E. Alemany, A. Ortiz	
MEASUREMENT OF ELECTRICAL POWER AND ENERGY WITH A SMART METER N. Paunkov, R. Popov, A. Parushev, A. Chekichev, S. Lyubomirov	5000
A PERSPECTIVE ON STUDENT PERFORMANCE IN ARCHITECTURE AND DESIGN EDUCATION S.A. Lörincz	5009
HOW TO FACILITATE CO-CREATION DURING ERASMUS+ MOBILITY FOR STUDENTS AND STAFF M. Örnekoğlu Selçuk, M. Emmanouil	5015
MEASURING DIGITAL LITERACY AND ICT: HIGH SCHOOL VIRTUAL CLASSROOM DURING THE COVID-19 LOCKDOWN, CASE OF CHILE A. Llorens	5024
STRENGTHENING STUDENTS' KNOWLEDGE ABOUT CLIMATE CHANGE EFFECTS M. Titko, J. Studená, M. Luskova	5032
THE RELATIONSHIP BETWEEN PSYCHOLOGICAL RESILIENCE AND CAREER ADAPTABILITY IN UNIVERSITY STUDENTS G. Sart, F.H. Sezgin	5039
THE ECONOMIC IMPORTANCE OF THE LEVEL OF FINANCIAL EDUCATION IN SLOVAKIA AND HOW TO IMPROVE IT L. Kontrova, I. Ilavská, J. Gazdíková	5046
ATTEMPT TO USE RFCDC DESCRIPTORS IN COMMUNICATION-RELATED COURSES OF JAPANESE UNIVERSITIES K. Matsumoto	5054
DEVELOPMENT OF AN IMMERSIVE ENVIRONMENT FOR PRE-SERVICE TEACHER TRAINING V. Duffek, P. Hořejší, P. Mentlík, J. Polcar, T. Průcha, L. Rohlíková, M. Zíka	5055
STATISTICAL RESEARCH ON UNIVERSITY STUDENTS' PERCEPTIONS OF DATING VIOLENCE G. Sart, F.H. Sezgin, İ.Y. Keskin, M. Sari, Z. Girgin	5063
LEARNING ABOUT CLIMATE CHANGE ADAPTATION BY ANALYSIS OF GOOD PRACTICE FROM THE WORLD S. Strelcová, M. Titko	5069

THE EFFECTS OF PARENTAL ATTITUDE AND FAMILY FUNCTIONING ON EMOTIONAL INTELLIGENCE IN UNIVERSITY STUDENTS G. Sart, F.H. Sezgin, A.E. Aslan	5076
BUILDING AN EDUCATIONAL APP TO SUPPORT PHYSIOTHERAPY PRACTICE IN ACUTE CARE A. Alves Lopes	5084
MAINTAINING THE EFFECTIVENESS OF UNIVERSITY-INDUSTRY- SCIENCE COLLABORATION M. Ruseva, M. Dakova, A. Erturk, V. Zhekova	5089
FROM STUDY GUIDANCE AT HIGH SCHOOL TO ENGINEERING EDUCATION: 3 STEPS INTO SOFT SKILLS V. Rodriguez-Ruiz, D. Viseur, S. Falempin	5090
THE CONCEPT OF ENGAGEMENT IN TECHNOLOGY-SUPPORTED HIGHER EDUCATION DURING THE COVID-19 PANDEMIC: A BIBLIOMETRIC STUDY E. Trombeta de Oliveira, M. Cristina Garbin, S. Caliani Zamparoni, A. Claudia Martins Rosa, C. Regina Pinto	5097
PROBLEM-PUZZLE ACTIVITY TO BOOST THE COOPERATIVE LEARNING OF QUANTITATIVE METHODS IN THE DEGREE IN INDUSTRIAL ORGANISATION ENGINEERING A. Esteso, M.M.E. Alemany, L. Ruiz, A. Boza	5105
THE DEVELOPMENT OF TEACHERS' APPROACH TO DISTANCE EDUCATION IN SOME SLOVAK SECONDARY VOCATIONAL SCHOOLS AND THE POSSIBILITIES OF PEDAGOGICAL PRACTICE IN THE CASE OF ONLINE EDUCATION OF PUPILS T. Varadyová	5112
METHODOLOGY FOR THE INCORPORATION OF THE SUSTAINABLE DEVELOPMENT GOALS IN BACHELOR'S AND MASTER'S THESES F. Alarcón, M.A. Rodríguez-Sánchez, M. Fernández-Diego, A. Esteso	5117
THE PROMOTION OF TEACHING EXCELLENCE VIA AN ASYNCHRONOUS MOODLE COURSE D. Archan, C. Egger	5125
CIRCUITS OF HIGHER EDUCATION TEACHING POWER (CHETP): A SYSTEMIC PERSPECTIVE OF ONLINE TEACHING INNOVATION R. Quilling	5133
INTERACTION ANALYSIS OF ONLINE UNIVERSITY LESSONS R. Miháliková, M. Mesárošová	5134
HOW TO DESIGN ENGAGING LEARNING EXPERIENCES WITH SOCIAL ROBOTS? RESULTS FROM A JOINT EDUCATION PROJECT ON LEARNING DESIGNS WITH SOCIAL ROBOTS WITH AN EXAMPLE OF "TRAINING FOR FIRST VOTERS" I. Buchem, M. Leiba	5140
THE IMPACT OF STUDENTS' EMOTIONAL WELL-BEING ON ACADEMIC PERFORMANCE IN THE POST COVID ERA	5150
E. Pipia, M. Chkotua, N. Parjanadze, M. Bandzeladze, I. Mesiridze, N. Tvalchrelidze, M. Razmadze A TALE OF TWO PANDEMICS, COVID-19 AND MACROAGGRESSION: THE IMPACT OF CORONAVIRUS DISEASE ON THE SUCCESS OF BLACK AND BROWN COLLEGE STUDENTS T. Gallon, R. Johnson	5160
CREATING AR-BASED AUDIOVISUAL MATERIALS FOR ONLINE LANGUAGE LEARNING P. Elhazaz, A. Magnet, G. Moody	5167
IMPLEMENTATION OF THE PROTON MODEL IN IMPROVING ELEMENTARY SCHOOL STUDENTS WRITING SKILLS F. Jannah, R. Fahlevi, R. Sari, R. Radiansyah, Y. Yuda, P.M. Puspita, M. Zefri	5168
ONLINE CHEATING PREVENTION MECHANISMS IN HIGHER EDUCATION: HAVE THE METHODS CHANGED POST-PANDEMIC? K. Adzima	5176
ACCREDITATION AND ASSESSMENT OF SINO-FOREIGN COOPERATIVE HIGHER EDUCATION PROGRAMME $L.M.\ Yu$	5177
HAS INCREASED USE OF DIGITAL APPLICATIONS BOOSTED PRIMARY SCHOOLCHILDREN'S READING COMPREHENSION AND AUTONOMY SKILLS? E. Pivia. I. Chikovani	5185

A STUDY ON LEADERSHIP IN UNCERTAIN TIMES: STRATEGIES AND SKILLS V. Gaur	5192
DESIGNING A 360° LEARNING ENVIRONMENT FOR THE DEVELOPMENT OF SOFT SKILLS	5201
E. De Bruyne, E. Van Den Broeck, S. Chaoui, S. Govaerts UNIVERSITY ORIENTATION COURSE FOR FIRST-YEAR COMPUTER SCIENCE STUDENTS M. Paales, H. Hein	5210
SELF-EFFICACY AS A SOCIOEMOTIONAL COMPETENCY WITHIN ARCHITECTURE EDUCATION P. Miguel-Sin, S. Domínguez Gil, A. San José Cabrero, G. Ramírez Pacheco	5216
ADAPTING SELFIEFORTEACHERS TO FACILITATE THE DIGITAL COMPETENCE OF EARLY CHILDHOOD EDUCATION AND CARE PROFESSIONALS G. Kapsalis, A. Economou	5223
BOARD GAME AS A TOOL FOR BULLYING PREVENTION IN SCHOOLS J. Gravitis, A. Freimane	5224
VIRTUAL EXCHANGE AS FACILITATOR OF "JOINTNESS" IN EUROPEAN JOINT MASTER IN SOCIAL WORK WITH CHILDREN AND YOUTH (ESWOCHY) J. Pivoriene, R. Bardauskiene	5230
INCREASING THE PUBLICATION ACTIVITY OF MASTER'S STUDENTS: THE CASE OF LOMONOSOV MOSCOW STATE UNIVERSITY S. Shchelokova, V. Vertogradov	5236
EQUALS-EU: EMBRACING GENDER EQUALITY AND DIVERSITY TO FOSTER STEM CAREERS AND SOCIAL INNOVATION C. Matera, S. Spada, S. Tagmat	5240
VIRTUAL BENCH FOR REMOTE MEASUREMENT OF THE SPECIFIC HEAT CAPACITY OF AIR	5248
A. Parushev, A. Chekichev, N. Paunkov, R. Popov, S. Lyubomirov THE USE OF AUGMENTED REALITY IN THE AFTER SCHOOL CLUB FROM THE POINT OF VIEW OF FUTURE EDUCATORS L. Korenova, E. Severini, I. Cavojsky	5254
STRENGTHENING ADULT READER PROFILES: RESULTS OF AN EXPLORATORY RESEARCH A. Morini, G. Moretti	5264
FACILITATING LEARNING GLOBAL HEALTH AND SUSTAINABILITY IN UNDERGRADUATE STUDENTS THROUGH A COLLABORATIVE INTERNATIONAL VIRTUAL EXCHANGE EXPERIENCE M. Pascual	5271
ENGAGING LEARNERS WITH A NEW BILINGUAL LEARNING ENVIRONMENT TO EXPLORE HUMAN ANATOMY: AN ITERATIVE DEVELOPMENT PROCESS TO GO FROM INTERACTING WITH 2D IMAGES TO IMMERSIVE VIRTUAL REALITY D. Vergote, M. Pellerin	5276
MAGNETIC FIELD MEASUREMENT WITH MICROPROCESSOR PLATFORM WITH INTELLIGENT SENSOR N. Paunkov, R. Popov, A. Chekichev, A. Parushev, S. Lyubomirov	5282
EVENT TECHNOLOGY AS A MEANS OF ORGANIZING EXTRACURRICULAR ACTIVITIES IN TEACHING ENGLISH AT UNIVERSITY E. Chelpanova, V. Moshkovich, F. Zakirova, E. Bystray, A. Shabalina	5290
LINKING EDUCATION AND RESEARCH AROUND A "LAB RIVER": A MULTIDISCIPLINARY EXPERIENCE A. Sordo-Ward, M.D. Bejarano, P. Bianucci, A. Iglesias	5295
FROM DIGITAL TO PHYSICAL TWIN: AN INNOVATIVE DESIGN METHODOLOGY FOR FUTURE CREATIVES L. Tenuta, B. Rossato, A. Cappellieri	5301
TILE-BASED PROGRAMMING LANGUAGES AND VIRTUAL ENVIRONMENTS FOR PROGRAM CODES SIMULATION K. Czakóová, L. Végh	5308
INTERDISCIPLINARITY AS A MEANS TO IMPROVE COLLABORATION AND KNOWLEDGE EXCHANGE BETWEEN UNIVERSITIES AND SOCIETY TO ADDRESS SOCIETAL CHALLENGES A. Spithoven	5314

COMPUTER TOOL TO GENERATE RAINFALL DATA FOR EDUCATIONAL PURPOSES IN SPAIN (PLUGEN) A. Sordo-Ward, M.D. Bejarano, I. Gabriel-Martin, L. Garrote	5315
WORKING WITH VICTIMS OF DOMESTIC VIOLENCE IN WESTERN ROMANIA: THE ROLE OF LIFELONG LEARNING FOR PROFESSIONALS R. Ungureanu, M. Tomita	5322
RELATIONSHIP BETWEEN THE USE OF THE VIRTUAL CAMPUS (MOODLE) AND ACADEMIC PERFORMANCE: FIRST-YEAR STUDENT PROFILES P. Aparicio-Chueca, X. Triadó-Ivern, J. Callejo-Blanco	5323
POSSIBILITIES OF USING GAMES IN TEACHING AND LEARNING THE BASIC CONCEPTS OF OBJECT-ORIENTED PROGRAMMING L. Végh, K. Czakóová	5329
EXTENDED REALITY AS AN EDUCATIONAL TOOL FOR HIGHER EDUCATION INSTITUTIONS Y. Daineko, M. Ipalakova, D. Tsoy, Z. Bolatov	5335
TEACHING ENGINEERING SUBJECTS FOR NON-ENGINEERING HIGH SCHOOL STUDENTS USING PROJECT-BASED LEARNING APPROACH R. Čermák, V. Mašek, D. Fait	5340
OCEAN LITERACY EDUCATION: COLLABORATION OF PRE-SERVICE, IN-SERVICE TEACHERS AND ELEMENTARY STUDENTS IN SUSTAINABLE ACTIONS D. Boaventura, F. Silva, B. Vaudano, A.T. Neves, M. Oliveira	5345
USE OF LOW-COST TECHNOLOGY IN FINAL DEGREE PROJECTS FOR THE TRAINING OF ENGINEERS IN THE FRAMEWORK OF INDUSTRY 4.0: A CASE STUDY OF A MOBILE ROBOT PROTOTYPE FOR FUSED DEPOSITION MODELLING L.M. Belmonte, E. Segura, A. Fernández-Caballero, A. Lucas, R. Morales	5351
FROM CRISIS TO POSSIBILITY: COLLABORATION IN INITIAL TEACHER EDUCATION D. Barr, P. Eaton, M. Hagan, J. Nelson	5361
UNIVERSITY EUROPEIA'S ACADEMIC MODEL: NEW TRENDS AND EXPERIENCES P.N. Vieira, C. Correia Leal, R. Morais	5370
ARTIFICIAL INTELLIGENCE TRAINING OF FUTURE INDUSTRY 4.0 ENGINEERS USING LEGO MINDSTORMS IN FINAL DEGREE PROJECTS: AUTONOMOUS VEHICLE PROTYPE AS CASE STUDY L.M. Belmonte, E. Segura, A. Fernández-Caballero, F. Vigo-Bustos, A.S. García, R. Morales	5371
ELEMENTS CHARACTERIZING THE QUALITY CULTURE OF A UNIVERSITY FROM THE DIFFERENT PERSPECTIVE OF TEACHERS, STUDENTS AND STAFF L. Mion	5381
LITERACY IN TRAINING FUTURE PRIMARY SCHOOL TEACHERS L. Mara	5390
IITU EXPERIENCE OF MOOCS USE IN THE EDUCATIONAL PROCESS Y. Daineko, A. Mustafina, N. Nalgozhina, Z. Bolatov	5396
DEFINITION OF PROFESSIONAL COMPETENCE PROFILES AS A KEY INSTRUMENT IN TRAINING PROGRAMS FOR EMPLOYMENT: EXPERIENCE IN A PUBLIC ADMINISTRATION F. Berrocal Berrocal, D. Alonso Hernán, P. Sanz Gómez	5402
CHALLENGE-BASED LEARNING AS A PROMOTER OF SUSTAINABILITY AND CREATIVITY IN HIGHER EDUCATION: AN EVALUATIVE STUDY P.N. Vieira, L. Faria	5403
EMPOWERING INQUIRY-BASED LEARNING IN SHORT COURSES FOR PROFESSIONAL STUDENTS K. Martin, M. Zarb, R. McDermott, T. Young	5404
ANALYSIS OF LEARNING STYLES OF STEM STUDENTS V. Čotić-Poturić, I. Dražić, I. Lulić	5410
MEDICAL STUDENTS AS TEACHERS (MSAT) - EXAMINING THE ROLE THAT FINAL YEAR STUDENTS CAN PLAY IN THE TUTORING OF JUNIOR PEERS H. Knifton, J. Hodson, R. Breare, M. McCarthy	5417
APPLYING THE CONCEPT OF ORGANIZATIONAL LEARNING FOR LEADING INCLUSION IN A MAINSTREAM SCHOOL M. Kokare, D. Nimante	5418
GENDER PERSPECTIVES IN TEACHING: ERASMUS+ PROJECT "GIRLS GO STEM" V. Čotić-Poturić A. Bašić-Šiško I. Dražić	5428

VIRTUAL REALITY FOR DEBATING AT SCHOOL: PRELIMINARY FINDINGS FROM A PILOT PROJECT IN ITALY A. Benassi, E. Mosa, S. Panzavolta	5432
LIGHTING AS A TOOL TO SUPPORT ADHD STUDENTS: THE EFFECT OF ILLUMINANCE ON MEMORY IN UNIVERSITY STUDENTS S.E. Cabriales-Orozco, M.L. Nolé, J.L. Higuera-Trujillo	5438
E-PORTFOLIOS AND THE BEGINNING DESIGN STUDENT C. Fulford, R. Nobles	5445
ANALYZING THE POSSIBILITY OF INTRODUCING AGILE METHODOLOGIES TO STUDENT ORGANIZATION PROJECT MANAGEMENT T. Gavrilović, O. Pantelić, S. Krstović, M. Martić	5446
APPLICATION OF I LIVING LAB AS AN EDUCATIONAL APPROACH FOR REAL PROBLEM RESOLUTION: MICROALGAE CULTIVATION USING ROBOTICS TECHNOLOGY C.A. Santos, V. Ciupe	5453
ANIMAL WELFARE DURING NATURAL DISASTERS: PREPARING VETERINARY SERVICES IN THE TIME OF COVID-19 C. Albanello, P.F. Dalla Villa, A. Falconi, D. Morelli, F. Pompei, S. D'Albenzio	5460
DEVELOPMENT OF PROFESSIONAL COMPETENCES IN UNIVERSITY STUDENTS THROUGH STRATEGY GAMES	5469
M.A. Alonso García, F. Berrocal Berrocal, D. Alonso Hernán, M.A. Gómez Flechoso, A.A. Sánchez Ruiz-Granados, M. Castrillón López	
A MICROLEARNING APPROACH BY THE #ESTUDOEMCASA APOIA PROJECT C. Torres, H. Liberato, A. Fernandes, L. Brito, M. Covas	5470
THE IMPACT OF SERVICE LEARNING ON PEDAGOGICAL HIGH SCHOOLERS' PROFESSIONAL COMPETENCIES FORMATION D. Grigor, M.D. Bocoș-Bințințan	5475
LEAN AND SAFETY CHRONIC CARE: FIRST PROJECTS FROM A SPANISH HOSPITAL A. Tiso, M. Torrego, M.F. Morales Contreras, C. Verbano	5482
DEVELOPING A 3D HUMAN ANATOMY APPLICATION IN VIRTUAL REALITY: AN ITERATIVE DESIGN APPROACH INVOLVING STUDENTS' VOICES IN MAKING LEARNING ENVIRONMENTS MORE INCLUSIVE IN THE DIGITAL ERA M. Pellerin, D. Vergote	5488
REELCHART: A TOOL FOR THE EXPLORATION OF VIDEO FOOTAGE IN THE CONTEXT OF ENGAGED RESEARCH-LED TEACHING L. Draisci, G. Colombo	5489
AGE CONDITIONED ONLINE RESEARCH AND COMPREHENSION SKILLS IN PRIMARY SCHOOL STUDENTS M. Kordigel Aberšek, M. Kerneža	5496
INTERACTIVE EXPERIMENTS AS A TOOL TO ATTRACT YOUNG STUDENTS TO STEM EDUCATION	5505
V. Vasconcelos, P. Amaro, E. Bigotte, R. Almeida, L. Marques DEVELOPMENT OF STUDENTS' DISCUSSION SKILLS THROUGH COMMUNICATIVE	5510
TASKS F. Zakirova, E. Chelpanova, V. Moshkovich, E. Bystray, A. Shabalina	3310
EMPOWERING CRITICAL THINKING WITHIN A CLIL SETTING M. Sepešiová	5515
FOSTERING A MULTIMODAL APPROACH TO UNDERSTANDING A LANGUAGE M. Sepešiová	5520
ETHICAL-CIVIC-TRANSNATIONAL DIMENSION IN TEACHING-LEARNING PROCESSES: THE EDUCATIONAL WAY OF DIALOGUE IN THE SCHOOL OF THE 21ST CENTURY M. Cerrato, E. Fortunato	5526
AN EXPLORATORY ANALYSIS OF MOTIVATIONS FOR ENROLLING IN ONLINE COURSES BY TRADITIONAL STUDENTS J. Reardon, R. Law, D. McCorkle, M. Martin	5535
VIRTUAL BENCH FOR REMOTE MEASUREMENT OF AIR FLOW VELOCITY IN A DUCT THROUGH A PITOT TUBE A. Parushev, A. Chekichev, S. Lambomirov, R. Ponov, N. Paunkov	5536

FIRST DAY OF CLASS: WHAT I HAVE TO TELL MY STUDENTS AND WHAT MY STUDENTS EXPECT FROM ME. ARE WE ABLE TO PUT OURSELVES IN STUDENTS' SHOES? M. Milani	5542
INNOVATION, CREATIVITY AND ENTREPRENEURSHIP: EDUCATIONAL IMPROVEMENT PLAN FOR DEVELOPING NEW LEARNING ACTIVITIES AT UPV A. Llorca Ponce, E. Navarro Astor, G. Rius-Sorolla	5548
TEACHING TERMINOLOGY OF SCIENCE I. Cíbiková, B. Petrášová	5553
USING MATLAB GRADER FOR FORMATIVE FEEDBACK IN ENGINEERING DEGREES I. Tejado, C. Nuevo-Gallardo, R. de la Encarnación-Sama, E. Pérez, B.M. Vinagre	5563
THE 64 MILLION DOLLAR QUESTION: IS EFFECTIVE USE OF SELF DEVELOPMENT TIME A MARKER OF SUCCESSFUL ARCP OUTCOMES? B. Yussuf, R. Winston	5574
ANALYSIS AND RESEARCH OF CRYPTOGRAPHIC MODELS TO ENSURE INFORMATION SECURITY IN ENGINEERING EDUCATION I. Uzunov, S. Lyubomirov	5578
DOES CRISIS HAVE A SILVER LINING? A CASE STUDY OF LEADERSHIP EXPERIENCE IN HANDLING THE COVID-19 PANDEMIC IN HIGHER EDUCATION INSTITUTION S. Jayadevappa, J. Doreswamy	5584
NETWORKED INFORMATION SYSTEMS RESEARCH ON SECURITY IN ENGINEERING EDUCATION I. Uzunov, S. Lyubomirov	5589
LEARNING AND TEACHING DURING A TIME OF CRISIS D. Vyortkina	5599
GREEN IT STRATEGIES AND PRACTICES IN HIGHER EDUCATION D. Vyortkina, R. Stys	5605
SURPRISE AND DELIGHT: APPLICATION OF A SERVICE QUALITY MODEL TO LANGUAGE TEACHING J. Blake	5616
THE BENEFITS OF OUTDOOR EDUCATION FOR CHILDREN AGED 5-12 YEARS FROM THE PARENTS' PERSPECTIVE I. Hergan, A. Žerovnik, K. Susman	5624
DEVELOPMENTS FOR THE CONTRIBUTION BY THE NEW TECHNOLOGIES IN THE RIGHT TO EDUCATION - AN EUROPEAN LAW APPROACH M.M. Silva, D. Alves, M.J. Ferreira	5630
FROM SCIENCE COMMUNICATION TO SCIENCE EDUCATION: THE EDUCATIONAL ASSESSMENT OF AN OUTREACH ORIENTED SCIENCE CENTER I.A. Costa, R. Cardoso Reis, F. Bessa Almeida, I. Monteiro	5638
SCIENTIFIC SKILLS IN EDUCATION: PRE-SERVICE TEACHERS' POINT OF VIEW A. Nejedlý, K. Vojíř	5645
DIGITAL HUMANS FOR TEACHER EDUCATION: A 3D CONVERSATIONAL AI AGENT-BASED PLATFORM AS A FACILITATOR TO DEVELOP ORAL COMMUNICATION SKILLS IN FUTURE TEACHER EDUCATION IN GERMANY E. Afzal, J. Fecke, E. Braun	5646
LEARNING MENTAL CALCULATION IN LUDODIDACTIC ACTIVITIES A. Amirante, L. Tortorelli, I. Veronesi	5647
EPIK2 QUIZ: AN EXAMPLE OF EFFECTIVE COLLABORATIVE LEARNING ACTIVITY A. Amaral da Silva, C. Morgado, F. Barbosa	5655
SUPPORTING STUDENTS' MOTIVATION: THE PATHWAY BETWEEN PARENTS AND TEACHERS AUTONOMY SUPPORT AND STUDENTS' ACHIEVEMENT S. Germani, T. Palombi, A. Chirico, G. Asquini, F. Alivernini, F. Lucidi	5665
A CRITICAL REVIEW OF THE STATE OF EDUCATION IN GOVERNMENT SCHOOLS IN INDIA A. Choudhary	5672
IS THE POSITIVE ILLUSORY BIAS AGE-RELATED? EXAMINING DISCREPANT SELF-PERCEPTIONS OF ACADEMIC COMPETENCE IN MIDDLE-SCHOOL STUDENTS WITH AND WITHOUT ADHD P. Škobrtal, I. Benešová, Z. Stránská, R. Pospíšil, M. Novotný	5676

PROFESSIONAL LEARNING COMMUNITIES - PROFESSIONALIZING TEACHING CAREERS D. Mara	5684
POTENTIAL PROBLEMS OF ADULT EDUCATION IN TODAY'S HUNGARIAN VOCATIONAL EDUCATION AND TRAINING L. Szabó, K. Szabó, J. Udvaros, N. Forman	5689
MINIMIZING EDUCATIONAL DISRUPTIONS IN DISADVANTAGED SCHOOLS THROUGH EU-FUNDED PROJECTS M.C. Grigoroiu, C. Țurcanu	5693
THE DADA MODEL (DIDACTICS FOR LEARNING ENVIRONMENTS): A PEDAGOGICAL INNOVATION IN THE ITALIAN SCHOOL CONTEXT S. Germani, C. De Santis	5700
INTEGRATION OF INSTRUMENTATION EQUIPMENT IN A REMOTE ELECTRONICS LABORATORY M.A. Domínguez, R. Pérez-Aloe, J.M. Carrillo, J.L. Ausín, J.F. Duque-Carrillo	5707
MANAGEMENT AND ORGANIZATION OF CHANGE PROCESSES IN DIGITAL TRANSFORMATION OF HEALTHCARE: THE ROLE OF WORKPLACE LEARNING A. Svensson, L. Aggestam, H. Vallo Hult	5714
POST-HEALTH EMERGENCY MICRO-PLANNING IN INTEGRATED PRE-SCHOOLS AND KINDERGARTENS SYSTEM: A CASE STUDY G. Moretti, A. Morini, B. Briceag, A. Gargano	5721
AN ETHNOGRAPHIC RESEARCH ON THE EDUCATIONAL MARKETING ENVIRONMENT IN RURAL ROMANIA DURING THE COVID PANDEMIC 19 M.C. Grigoroiu, C. Țurcanu	5727
THE ISSUE OF DIGITAL COMPETENCES IN LOGISTICS TECHNICIAN TRAINING IN HUNGARY L. Szabó, N. Forman, J. Udvaros	5735
SYNCHRONOUS CONFERENCING SOFTWARE-ASSISTED TEACHING & LEARNING: PRELIMINARY LESSONS FROM AN INTER-INSTITUTIONAL FACULTY GROUP IN QATAR	5739
R. Bianchi, A. Weber, B. Yyelland, R. Ghanam, K. Kittaneh, W. Zaghouani CHALLENGING BARRIERS TO LEARN, THROUGH ACESO METHODOLOGY N. Samar Brenčič, O. Cramariuc, I. Mocanu, D. Rudel, K. Piotrowicz	5745
LEARNING ORGANISATIONAL RESILIENCE THROUGH THE CONTINUITY PROJECT R. Sanchis, M. Arias-Vargas, R. Poler	5746
SIMULATION IN EDUCATION OF HEALTH PROFESSIONS: A DESCRIPTIVE ANALYSIS THROUGH BIBLIOMETRICS A. Alves Lopes	5754
ELECTRONIC HEALTH CARE IN SLOVAKIA FROM THE PERSPECTIVE OF PHARMACISTS I. Štempeľová, O. Takáč, D. Hirjaková, M. Fedorová	5758
PRE-SERVICE TEACHERS' PERCEPTION OF THE MULTILINGUAL READERS THEATER (MELT) A. Kiani	5767
PRIMARY SCHOOL TEACHERS' COMPETENCE IN APPLICATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES AND ITS DEVELOPMENT J. Lenkauskaite, E. Masiliauskiene, K. Kondrataviciute	5774
TEACHERS PROFESSIONALS' PERCEPTION OF HIGHLY SENSITIVE PEOPLE: A QUALITATIVE APPROACH N. Albaladejo-Blázquez, M. Baryła-Matejczuk, R. Ferrer-Cascales, M. Fernández-Alcántara, M. Rubio-Aparicio, B. Costa-López, N. Ruiz-Robledillo	5783
INFOGRAPHICS AS A POST-PANDEMIC DIDACTIC RESOURCE M.A. Carballo-Ontiveros, A.A. Mendoza-Amador, A.N. Castañeda-Sortibrán	5788
STUDENT USE OF INTERACTIVE TECHNOLOGY IN LARGE FACE-TO-FACE LECTURES POST-PANDEMIC – ISSUES AND OPPORTUNITIES C. Holtham, M. Rich, L. Huang	5792
MODERN ONLINE TEACHING TECHNIQUES AND THEIR EFFECT ON STUDENTS IN HIGHER EDUCATION DURING THE SECOND WAVE OF THE COVID-19 PANDEMIC AT J. SELYE UNIVERSITY IN SLOVAKIA I. Szencziová, E. Tóthová Tarová, S. Darvay, M. Nagy, P. Balázs, Z. Fehér	5801

A TOOL FOR MEASURING EDUCATIONAL GAME QUALITY J. Liebenberg, J. Klerck	5808
EXPRESSION OF CITIZENSHIP COMPETENCE BY 3RD TO 6TH GRADE STUDENTS (CONTEXT OF LITHUANIA) A. Vaitkevičienė, A. Širiakoviene, E. Masiliauskienė, G. Stonkuvienė	5818
ENSURING QUALITY HEALTHCARE PRACTICE FOR DOCTORS AND MEDICAL ALLIED PROFESSIONALS THROUGH A DIGITAL INTERACTIVE AUDIT PLATFORM F. Papamalis, S. Cunningham, P. Hodges, A. Grochowska, A. Stefanowicz-Kocol, I. Poultourtzidis, M. Lillo-Crespo, M. Nikolaidou, S. Ko, V. Höijer-Brear, M. Törne, Z. Tilley Zoe, S. Feliciano, S. Konstantinidis, D. Spachos, P. Bamidis	5825
FULLY REMOTE CONTROLLABLE OPTICS EXPERIMENT FOR UNIVERSITY HANDS- ON TRAINING F. Sojka, J. Domke, C. Henkel, J. Kretzschmar, F. Lukas, C. Helgert, T. Pertsch	5832
GAMES-BASED COOPERATIVE LEARNING IN THE PRIMARY GRADES J. Lenkauskaite, E. Masiliauskiene, G. Skirbauskiene	5833
DRAMA IN EDUCATION ENHANCING TRANSFERABLE CAREER SKILLS: A MIXED- METHODS MULTIVARIATE RESEARCH APPROACH C. Zourna, I. Papavassiliou-Alexiou	5842
A PRACTICAL APPROACH TO DEFINE THE SUSTAINABILITY PROFILE OF STUDENTS: THE COMMUNITY BUILDING METHODOLOGY M.J. Cantalejo, C. Vilches, M. Aldaya, J. Albarrán	5851
MULTIPLE CAMERA VIDEO CONFERENCE SYSTEM FOR HYBRID PRACTICAL TRAINING AND THE INTEGRATION OF ONLINE STUDENTS INTO THE STUDENT COMMUNITY	5855
F. Lukas, F. Sojka, J. Domke, C. Henkel, J. Kretzschmar, C. Helgert, T. Pertsch	
EXAMINATION OF THE SLEEPING HABITS OF ELEMENTARY SCHOOL STUDENTS IN SOME SCHOOLS IN SLOVAKIA E. Tóthová Tarová, I. Szencziová, V. Himpán, S. Darvay, Z. Fehér, M. Nagy, P. Balázs	5856
EDUCATION AND MULTICULTURAL COMMUNITIES G. Ciobotaru	5863
CHANGES IN THE ATTITUDES OF HUNGARIAN SECONDARY SCHOOL STUDENTS IN SLOVAKIA REGARDING REGIONAL LANGUAGE VARIANTS APPEARING IN FORMAL SPEAKING SITUATIONS DURING THE EDUCATIONAL PROCESS D. Illés, I. Vančo	5864
ENSURING EQUITY, INCLUSION AND RETENTION OF STUDENTS WITH DISABILITIES IN SCIENCE FIELDS E. Johannes	5870
ACCEPTANCE OF THE USE OF SLOVAK HUNGARIAN REGIONAL LANGUAGE VARIANTS AMONG SECONDARY SCHOOL STUDENTS D. Illés	5879
SERVICE-LEARNING IS A CHANCE FOR THE STUDENTS TO WIDEN THEIR KNOWLEDGE AND EXPERIENCE IN SUSTAINABLE TECHNOLOGIES M. Murkovic, B. Siegmund, L. Pfeiffer	5885
VIRTUAL UNIVERSE PRO TO DEVELOP DIGITAL TWINS: POSSIBILITIES TO SUPPORT TEACHING IN AUTOMATION E. Pérez, P. Merchán	5890
BAI: A BLOCKCHAIN AND ARTIFICIAL INTELLIGENCE EDUCATIONAL PLANNER A. Elmessiry, M. Elmessiry, K. Elmessiry	5899
THE "WORTH" IN WORK-BASED LEARNING: IMPLEMENTING AN INNOVATIVE WBL APPROACH IN HIGHER EDUCATION J. Gilchrist, D. Doran	5904
DEFINITION OF THE SUSTAINABILITY PROFILE OF THE STUDENTS S. Ghnimi, P. Legall, S. Chriki	5910
A COMPARISON OF PRE-PANDEMIC AND POST-PANDEMIC EDUCATIONAL INSIGHTS IMPLEMENTING THE PEDAGOGICAL VARIATION MODEL (ROGERS, 2013) THROUGH BRAZILIAN AND UK INTERNATIONAL RESEARCH COLLABORATION M.S. Rogers, A. Grunewald Nichele	5916
MIXED-REALITY TOPICS FOR COURSE CURRICULUM: CURRENT STATE AND FUTURE PERSPECTIVES G. Vitols, A. Pogozelska	5927

TIME PERCEPTION IN FIRST YEAR UNDERGRADUATES: CORRELATION WITH STRESS, ANXIETY AND DEPRESSION C. Koebeli, T. Edginton, K. Morgan, L. Boubert	5932
FROM THE "THOUGHTFUL" PORTFOLIO TO THE REFLECTIVE PORTFOLIO: RETURN TO THE SUBJECT OF ACTION – AN EXPERIENCE CARRIED OUT WITH STUDENTS OF A PROFESSIONAL DEGREE IN HUMAN RESOURCES AT THE UNIVERSITY OF STRASBOURG A. Morales Artavia	5938
MAIN CONTRIBUTIONS AND CHALLENGES OF THE EDUCATIONAL METAVERSE M.A. García, Á. Jiménez-Sánchez, N.C. Martín García, J. López Alarma	5942
EDUCATING THE EDUCATORS – FROM THE PERSPECTIVE OF AN E-LEARNING CENTRE S. Kučina Softić, T. Radobolja	5952
DESCRIPTION OF TEACHING EXPERIENCES IN THE CONTEXT OF INDUSTRIAL HERITAGE IN CURRICULA THAT DO NOT INCLUDE THE DISCIPLINE: POSSIBILITIES FOR ADAPTING THE EDUCATIONAL ENVIRONMENT M.N. Sánchez-Casado, V. Miguel, M.C. Manjabacas, E. García-Martínez	5953
WHY TEACH HORROR STORIES? A FUNCTIONAL APPROACH TO HORROR Á. Tárkányi	5962
IMPLEMENTATION OF ELEMENTS OF INTELLIGENT AGRICULTURE IN INFORMATICS LESSONS WITH REGARDS TO THE SUPPORT OF INTERSUBJECT RELATIONSHIPS 1. Štempeľová, O. Takáč	5968
COMPARISON OF TEACHERS' AND STUDENTS' PERSPECTIVES ON DIGITAL COMPETENCIES OF UNIVERSITY TEACHERS: A CASE STUDY OF JAN AMOS KOMENSKY UNIVERSITY IN PRAGUE J. Beseda, I. Shánilová	5974
INTELLIGENT SYSTEM GENERATOR OF EXERCISES OF CURVE ADJUSTMENT WITH GAMIFICATION H. Pablo Leyva, R.B. Silva López	5982
TRENDS IN THE ONLINE COMMUNICATION OF UNIVERSITIES: SOCIAL MEDIA CONTENT STRATEGIES USED IN HIGHER EDUCATION IN EUROPE D.M. Cismaru, R.S. Ciochina, I. Burnei	5990
IMPACT OF A LIVE-STREAMED COURSE ON INTERNATIONAL MEDICAL GRADUATES PLANNING TO JOIN THE UK DOCTOR HEALTH SERVICE M. Seabrook, B. Yussuf, H. Knifton, J. Guy, A. Melemenis, K. Brahmbhatt, H. Zaman, D. Bowrey	5996
FROM THE PHYSICAL CLASSROOM TO THE DIGITAL CLASSROOM IN TIMES OF CRISIS: COVID-19, TOWARDS DIGITAL TRANSFORMATION R.B. Silva López, H. Pablo Leyva	5998
INTEGRATION OF PROJECT-BASED LEARNING AND BUILDING INFORMATION MODELING IN ENGINEERING EDUCATION: THE STUDENTS' PERSPECTIVE A. Barrera Puerto, R. Seiz Ortiz	6002
SUSTAINED SPEAKING EXPERIENCES WITH VIRTUAL HUMANS OVER TIME E. Ericsson, S. Johansson	6011
LEARNING WITH #ESTUDOEMCASA PROJECT: THE CASE OF ALGEBRA AND BLENDED LEARNING C. Torres, L. Brito, C. Negra, E. Martinho	6023
TOWARDS AN INTELLIGENT SYSTEM FOR ANALYSING CHILDREN'S SPEECH DISORDERS P. Porcuna, L. Andreu, D. Baneres	6029
TEACHING CRITICAL THINKING: SYSTEMATIC REVIEW AND META-ANALYSIS A. Deroncele-Acosta, M. Nagamine-Miyashiro, D. Medina-Coronado	6038
HELPING TO LEARN MODEL CONCEPTUALIZATION TASKS WITH MONO-GUIDE M. Schaffernicht	6046
DIFFERENT TYPES OF KNOWLEDGE ASSESSMENT IN THE PERIOD OF COVID IN PROFESSIONAL STUDIES AT THE FACULTY OF CIVIL ENGINEERING AND ARCHITECTURE OSIJEK J. Matotek, A. Štefić, T. Mijušković-Svetinović	6056
AN ONLINE TOOLKIT FOR FUTURE TEACHERS' TRAINING ON DIGITAL COMPETENCE G. Biagini, A. Roffi, S. Cuomo	6065

THE CUTTLEFISH CHALLENGE: A MULTIPURPOSE GAMIFICATION EXPERIENCE A. Montero-Navarro, J. Rodríguez-Sánchez, T. González-Torres, R. Gallego-Losada, D. Corrales-Garay	6075
IMPLEMENTATION OF ARONSON'S JIGSAW CLASSROOM TO ENHANCE THE TEACHING-LEARNING PROCEDURE ABOUT PSYCHOMETRIC CONCEPTS OF THE DEGREE IN PSYCHOLOGY P. Sayans-Jiménez, M. Godoy-Giménez, A.F. Estévez, F. Cañadas, A. García-Pérez, I. Carmona-Lorente, I. Cubero-Talavera, I. Fernández-Ágis, J.M. Lerma-Cabrera, L. Esteban García, A. González Rodríguez	6080
HOW DO DYSLEXIC CHILDREN READ? EVIDENCE FROM EYE TRACKING N. Dostálová	6088
REFUGEE AND MIGRANT LINGUISTIC INTEGRATION – BARRIERS AND CHALLENGES D. Lupașcu	6089
FEATURE SELECTION OF STUDENT(S) AT RISK OF DROPOUT USING ADMINISTRATIVE DATA AT A UNIVERSITY IN SOUTH AFRICA R.P. Ntema, E. Sonono	6090
SOCIAL RESPONSIBILITY AND PEDAGOGICAL INNOVATION: A MISSION (IM)POSSIBLE? A. Rodrigues, C. Vieira da Silva, P. Dias	6100
NO LIMITS: CREATING CONTENT ABOUT BUSINESS MANAGEMENT A. Montero-Navarro, R. Gallego-Losada, D. Corrales-Garay, J. Rodríguez-Sánchez, T. González-Torres	6109
THE USE OF SERIOUS GAMES AS AN EDUCATIONAL METHODOLOGY IN GRADUATION IN NURSING C. Nóvoa Fernandes, S. Rodrigues Rosado, F. Milani Magaldi, C. Cristine Antonietti Duarte, M. Moreno de Freitas	6114
ACCESSIBILITY OF EDUCATIONAL WEBSITES IN ECUADOR AND EQUATORIAL GUINEA: A TALE OF TWO COUNTRIES P. Nso-Mangue, T. Acosta, S. Luján-Mora	6119
APPLICATION OF FLIPPED CLASSROOM METHODOLOGIES AND COLLABORATIVE LEARNING IN THE CONTEXT OF TWO PSYCHOLOGY DEGREE COURSES M. Godoy-Giménez, P. Sayans-Jiménez, A.F. Estévez, F. Cañadas, A. García-Pérez, I. Cubero-Talavera, I. Carmona-Lorente, I. Fernández-Agis, J.M. Lerma-Cabrera, L. Esteban García, A. González Rodríguez	6128
TEACHERS' PERCEPTIONS ON STEM TEACHING WITH DIGITAL TECHNOLOGIES IN THE LOWER SECONDARY SCHOOL A. Roffi, S. Cuomo, G. Biagini	6136
ACCESS, EQUITY AND INCLUSION IN THE FACE OF UNCERTAINTY: STUDENT SUCCESS DURING THE COVID-19 PANDEMIC - "NO STUDENT LEFT BEHIND" L.L. Lalendle, E. Johannes, R. Tsephe, I. Naidoo	6142
DESIGN FOR (GLOBAL) RECOVERY: A PRODUCT DESIGN STUDIO FOCUSED ON SUSTAINABILITY C. Battistoni, A. Buffagni, E. Porfido	6149
POLYTRAUMA: AN IN SITU SIMULATION AS AN ESCAPE GAME FOR TRAINING NURSING STUDENTS F. Santos Marques, G. Carazzolle Narciso, C. Nóvoa Fernandes	6159
UNDERSTANDING USER EXPERIENCE (UX) FOR VIRTUAL REALITY BASED SURGICAL TRAINING D. Topalli, Y.E. Cetin, B.K. Pamuk, A. Ugurlu, B. Catalok, N.E. Cagiltay	6166
STUDENTS STUDY METHODS IN ELECTRONICS COURSES V. Vasconcelos, L. Marques	6167
MOBILITY AS A EUROPEAN EDUCATIONAL AREA: THE CONTRIBUTION OF HERITAGE DIVERSITY M. Castro, M. Ribeiro	6172
EDUCATIONAL APPLICATION FOR THE DEVELOPMENT OF COMPUTATIONAL THINKING SKILLS IN STUDENTS WITH SPECIAL NEEDS J. Castaño, L. López, K. Cardona, J. Garzón	6173
THE TECHNICAL SKILLS OF TODAY AND TOMORROW: INVESTIGATING THE CHANGING DEMANDS OF THE FUTURE SKILLS ECONOMY P. Miglani, J. Fraeys de Veubeke, L. Gatto, L. Antonie, D. Gillis	6180
INTERNATIONAL ACCREDITATION AS AN ELUSIVE QUALITY ASSURANCE ATTAINMENT: THE CASE OF A SOUTH AFRICAN BUSINESS SCHOOL L.L. Lalendle, B. Muchara, R. Matshoba	6181

THE USE OF THE MODEL FOR EVALUATION OF THE DESIGN OF DIGITAL EDUCATIONAL RESOURCES (LIBRAS/PORTUGUESE) L. de Moraes, B. Gonçalves	6187
"I JUST SAY I'M SICK": ENGAGING ALIENATED STUDENTS IN PHYSICAL EDUCATION CLASS M. Kim	6196
CULTURAL STUDIES AS THE FUNDAMENTAL PRINCIPLE OF LANGUAGE CURRICULUM E. Polyudova	6197
SOME EXPERIENCES IN STUDY PROGRAMME DEVELOPMENT S. Zlatovic, B. Uremovic	6203
IMPROVEMENT OF THE QUALITY ASSURANCE SYSTEM OF THE FACULTY OF PHARMACY: IMPLEMENTATION OF QUALITY INDICATORS M. Córdoba-Díaz, M.J. Hernaiz, M. Sánchez, I. Iglesias, M.D. Tenorio, P. Gómez-Serranillos	6209
STUDENT VOICE AND CHOICE: CULTURAL VALIDATION THEORY IN REDESIGNED COMPUTER SCIENCE COURSES M. Clark-Ibáñez, F. Saldaña, Y. Ouyang	6210
CONFIDENCE IN SPEAKING WITH NATIVE SPEAKERS C. Miranda-Aldaco	6217
RECONFIGURABLE PROTOTYPE FOR THE EXPERIMENTAL CHARACTERIZATION OF OPERATIONAL AMPLIFIERS IN ELECTRONICS LABS Á. Gómez-Márquez, J.M. Carrillo, M.A. Domínguez, R. Pérez-Aloe, J.L. Ausín, J.F. Duque-Carrillo	6223
CLOSING EQUITY GAPS IN COMPUTER SCIENCE WITH ACADEMIC COACHING M. Clark-Ibáñez, M. Talicuran, Y. Ouyang	6233
CULTURAL SENSITIVITY AND LINGUISTIC IDENTITY: CHALLENGES OF ACADEMIC MOBILITY M. Ribeiro, M. Castro	6239
CO-CONSTRUCTION OF KNOWLEDGE THROUGH THE CULTURAL RESOURCES INTERNATIONAL STUDENTS BRING TO THE WRITING CLASSROOM T. Roose	6240
CREATING AN INTERNATIONAL DIGITAL COURSE FOR DOCTORS OUTSIDE OF THE UK BEFORE STARTING THEIR WORK WITHIN THE NHS M. Seabrook, K. Brahmbhatt, H. Zaman, A. Melemenis, J. Guy, B. Yussuf, H. Knifton, D. Bowrey	6241
GUIDELINES FOR THE DESIGN OF BILINGUAL EDUCATIONAL RESOURCES FOR THE DEAF PUBLIC: BRAZILIAN SIGN LANGUAGE AND PORTUGUESE B. Gonçalves, M. Bandeira, L. de Moraes	6242
PROPOSAL FOR AN EXPERT SYSTEM FOR KNOWLEDGE EVALUATION AND CORPORATE TRAINING SUGGESTIONS D. Nascimento, P. Notargiacomo	6250
LET US CREATE GAMIFIED EDUCATIONAL RESOURCES IN GENIALLY ABOUT EDUCATIONAL LEGISLATION! A TEACHING INNOVATION WITH PRE-SERVICE EARLY CHILDHOOD EDUCATION TEACHERS M. Martín-Del-Pozo	6258
A REVIEW OF APPLICATIONS OF BLOCKCHAIN TECHNOLOGY IN EDUCATION B. Mihaljević, D. Beronić, M. Žagar	6265
RESULTS ON THE KNOWLEDGE OF THE SDG WITHIN THE FRAMEWORK OF THE EDUCATIONAL INNOVATION PROJECT PIME/21-22/251 ON THE DEVELOPMENT AND CREATION OF STRATEGIES FOR SOCIAL PARTICIPATION WITH AUDIOVISUALS R. Benavent Méndez, J. Moral	6275
TASK-BASED LEARNING AS A KEY APPROACH FOR ENHANCING THE PERFORMANCE OF A TEACHER AND A STUDENT T. Dilaverova, S. Dumbadze	6284
PROJECT-BASED LEARNING IN THE CHEMICAL REACTORS SUBJECT USING CURRENT NEWS AS A MOTIVATING METHODOLOGY F. López-Pérez, S.C. Cardona, V. Fombuena, C. Carbonell, I. Domínguez, J. Lora	6288
POSTGRADUATE INVOLVEMENT IN HIGHER EDUCATION: VIEWS FROM CENTENNIALS AND KNOWLEDGE TRANSFER PROFESSIONALS L.M. Cerdá Suárez	6293
SOCIAL PRESCRIBING "ART-ON-PRESCRIPTION": CREATIVITY IS YOUR LIFELINE M.S. Rogers, J.P.D. Rogers	6300

ARTIFICIAL INTELLIGENCE AND EDUCATION 4.0 J. Udvaros, N. Forman	6309
SIGNIFICANCE OF SOCIOCULTURAL PRAGMATIC COMPETENCE FOR EFL STUDENTS S. Dumbadze, T. Dilaverova	6318
CLINICAL SIMULATION AND THERAPEUTIC COMMUNICATION SKILLS IN A CONSULTATION CONTEXT: AN INNOVATION FOR NURSING STUDENTS' LEARNING AND ASSESSMENT F. Pinto, A. Teixeira, C. Magalhães, R. Jesus, M.C. Augusto	6323
FINE ARTS AS AN EDUCATIONAL RESOURCE IN THE DEVELOPMENT OF CREATIVE MINDS IN ESL CLASSROOMS E. Polyudova	6324
MAPPING OUT EMPLOYEE SKILL NEEDS WITHIN THE EUROPEAN HOSPITALITY INDUSTRY N. Forman, J. Udvaros	6331
LUDIC INTERVENTION ON GENERATIONAL CONFLICTS AMONG STUDENTS IN A PUBLIC SCHOOL IN CURITIBA R. Lagos, N. Tassi, G. Silva, W. Garcia	6339
HOW DO TOURISM STUDENTS' FEEL ABOUT INTERDISCIPLINARITY? C. Melo, C. Mouta, P. Pereira	6344
TACIT KNOWLEDGE YIELDING TO EXPONENTIAL FUNCTION AT THE UNIVERSITY LEVEL L. Bartosovic, P. Demkanin, A. Slovak	6349
CUSTODIAL GRANDPARENTS: AN ANALYSIS OF THE IMPACT SELECTED VARIABLES ON THE SOCIAL DEVELOPMENT OF AFRICAN AMERICAN CHILDREN AND ADOLESCENTS T. Clark, N. Brown, H.L. Aubrey, K. Anderson, T. Jordan, D. Hill-Eley, H. Swanson, E. Cameron	6358
PROFESSIONAL DEVELOPMENT OF TEACHERS AS A PEDAGOGICAL PROBLEM F. Kuravin, E. Kuravina, E. Nikitina, I. Balandina, T. Moskvitina, L. Yuzdova	6362
USING QUASI-PROFESSIONAL ACTIVITIES TO ENHANCE FOREIGN LANGUAGE LEARNING PROCESS M. Novikova, P. Novikov	6367
INTERFACE-SPACES FOR HYBRID HABITATS M.E. Tosello	6373
THE ROLE OF PARENTS IN THE ORGANIZATION OF ENVIRONMENTAL EDUCATION OF JUNIOR SCHOOLCHILDREN IN EXTRA-CURRICULAR ACTIVITIES IN THE CONDITIONS OF BLENDED LEARNING E. Grigoreva, I.G. Kozlova, N. Titarenko, T. Moskvitina, I. Balandina, L. Yuzdova	6380
LEARNING THE SKILLS OF DIGITAL PRIVACY THROUGH AN ONLINE COURSE L. Robertson, B. Muirhead	6385
USING SPEECH SYNTHESIS SOFTWARE TO IMPROVE STUDENTS' PRONUNCIATION: TOOLS FOR THE CLASSROOM AND SELF-STUDY A. Kiseleva, P. Novikov	6394
INITIAL FINDINGS FROM A STUDY OF MID-CAREER WORKERS WITH DISABILITIES IN THE CANADIAN CONTEXT C. Anyinam, S. Coffey, L. Robertson, C. Dasilva, L. Graham	6399
PAST, PRESENT, AND FUTURE OF ELECTROENCEPHALOGRAPHY IN EDUCATIONAL RESEARCH T. Buckles, R. Almandawi, G. Gonzalez-Cuevas	6406
STUDY ON BARRIERS TO LEARNING IN HIGHER EDUCATION IN ROMANIA R.S. Kiru, L. Maftei	6407
WORKING ON A GENDER PERSPECTIVE FOR ENTREPRENEURSHIP EDUCATION: AN EXERCISE IN EDUCATIONAL INNOVATION FOR COMPLEXITY P.E. Alonso-Galicia, I. Álvarez-Icaza Longoria, M. Rodríguez-Díaz, A. Medina-Vidal, P. Suárez-Brito	6413
WILLINGNESS TO COMMUNICATE (WTC) IN A HIGHER EDUCATION ESL CONTEXT: WHAT ARE SOME OF THE DRIVING FORCES THAT HINDER AND/OR PROMOTE STUDENTS' ACTIVE PARTICIPATION IN SEMI-GUIDED SPEAKING TASKS?	6419

EMOTIONAL WELL-BEING MATTERS: PROMOTING AFFECTIVE COMMUNICATION FOR TEACHERS AND STUDENTS DURING THE COVID-19 PANDEMIC P. Avitia-Carlos, C. Trejo-Alba, S. Rodríguez-Gutierrez, K. Rosas-Burgos, R. Mijangos-Ortega, S. Ortega-Flores	6424
HAS TEACHING IN DEGREES STABILIZED IN THE POST-PANDEMIC AT THE UNIVERSITAT JAUME I? THE INSTITUTIONAL REVISION OF THE BACHELOR'S DEGREE IN PUBLIC MANAGEMENT AND ADMINISTRATION O. Coltell, B.S. Tomás, M. Camarero, A.M. Rodríguez, L.V. Lizán, S.J. Blasco, C. Pauner, J.A. Viguri, J. Clemente, M. Oller	6431
INFORMATION LITERACY: ANALYSIS OF INSTITUTIONAL STRATEGIES TO DEVELOP INFORMATION LITERACY SKILLS FOR UNDERGRADUATE STUDENTS AT SELECTION COLLEGES AND UNIVERSITIES H.L. Aubrey, N. Brown, T. Clark, T. Jordan, K. Anderson, D. Hill-Eley, H. Swanson, E. Cameron	6436
MAEGAP: A PILOT INNOVATIVE EDUCATIONAL PROJECT TO IMPROVE THE PRESENCE AND ATTRACTION OF THE BACHELOR'S DEGREE IN PUBLIC MANAGEMENT AND ADMINISTRATION AT THE UNIVERSITAT JAUME I O. Coltell, B.S. Tomás, C. Pauner, J. Clemente, J.A. Viguri, L.V. Lizán, M. Camarero, A.M. Rodríguez, S.J. Blasco, M. Oller	6441
IMPROVING READING COMPREHENSION IN THE EFL CLASSROOM: THE MEANINGFUL COMBINATION OF TOP-DOWN AND BOTTOM-UP APPROACHES O. Rotko	6448
EDUCATION DOCTORAL PROGRAMS THAT TAKE AN EXPERIENTIAL AND INTEGRATIVE APPROACH HAVE THE CAPACITY TO CONTRIBUTE TO THE KNOWLEDGE ECONOMY J. McAtavey	6455
DATA PRIVACY AND SECURITY IN ONLINE LABORATORY MANAGEMENT SYSTEMS A. Pena-Molina, M.M. Larrondo-Petrie	6459
MINIMIZING THE EDUCATIONAL DISRUPTION THROUGH INCLUSION AND EQUITY T. Hudson Matthew	6466
A PATH ANALYSIS OF SOCIAL-ENVIRONMENT FACTORS, APPRAISALS, ANXIETY, AND PERCEIVED SUCCESS AMONG TEACHERS DURING THE PANDEMIC R. Pahljina-Reinić, M. Bažon, B. Rončević Zubković, S. Kolić-Vehovec	6470
INNOVATIVE USE OF A LEARNING MANAGEMENT SYSTEM TO SUPPORT AN INTERPROFESSIONAL AND CUSTOMIZED CURRICULUM FOR TELEHEALTH K. Hoggatt Krumwiede	6471
BACK TO CLASS AFTER A TWO-YEAR HIATUS D. Morin, S. Lahmiri, S. Hossaini	6472
DISABILITY SIMULATION LEARNING EXPERIENCE FOR JUNIOR SECONDARY SCHOOL STUDENTS	6473
S.H.S. Lo, J.P.C. Chau, A.W.K. Chan, S.K.Y. Lam, S.Y. Chair, V.W.Y. Lee, H.H.M. Lo, M.W.M. Chan, L. Butt, K. Mirchandani	
EFFECTS OF USING PATTERN CARDS ON STUDENTS' ACTIVITIES AND BELIEFS IN COOPERATION IN HIGH SCHOOL MATHEMATICS CLASSES M. Komachi, Y. Watanabe	6474
HOW KBCP-BASED INSTRUCTIONS AFFECT TO PROMOTE USING LEARNING STRATEGIES AND LEARNING OUTCOMES FOR HIGH SCHOOL STUDENTS IN MATHEMATICS? H. Jitsukawa, Y. Watanabe	6481
EFFECTIVE SUPPORT METHODS TO ENCOURAGE IMPLEMENTATION OF PRE- CLASS LEARNING IN FLIPPED CLASSROOM R. Matsuoka, Y. Watanabe	6488
THE WASP-ED AI CURRICULUM: A HOLISTIC CURRICULUM FOR ARTIFICIAL INTELLIGENCE H. Lindgren, F. Heintz	6496
PERSPECTIVES ON HIGHER EDUCATION INSTITUTIONS IN THE POST-COVID-19 ERA I.D. Rahimi	6503

CAN THE USE OF ZINES IN ARTS PEDAGOGIC PRACTICES IN HIGHER EDUCATION CHALLENGE THE DISPARITIES OF AWARDING GAPS, DOMINANCE OF EUROCENTRIC KNOWLEDGE SYSTEMS AND TAKE UP THE CALL OF SYSTEMATIC CHANGE AS DEMANDED BY THE BLACK LIVES MATTER MOVEMENT? R. Patel	6508
DEVELOPMENT AND EVALUATION OF THE CAT SYSTEM TO REDUCE MATHEMATICS TEST ANXIETY IN JAPANESE HIGH SCHOOLS Y. Kano, Y. Watanabe	6509
MULTICULTURAL AND MULTIETHNIC CHALLENGES FOR HIGHER EDUCATION IN ROMANIA UNDER THE CIRCUMSTANCES OF THE UKRAINIAN G.A. Necula	6516
THE INDIGENIZATION OF ECOLOGICAL AND ENVIRONMENTAL EDUCATION IN THE MENA REGION: THE ROLE OF A NATURAL HISTORY MUSEUM R. Sadek, L. Chehab, K. Knio, N. Sinnu-Saoud, M. Al Zein	6517
EDUCATION IN THE FAMILY (HOMESCHOOLING) - THE REASONS FOR THE CHOICE OF PARENTS E. Naidaitė, E. Stasiūnaitienė	6518
EFFECTS OF THE ONLINE CLASS USING DIGITAL WHITEBOARD ON COMMUNICATION BETWEEN STUDENTS IN A CSCL ENVIRONMENT K. Fujikawa, K. Shimizu	6526
IMPROVING THE WORK ABILITY OF YOUNGER ADULTS WITH STROKE: DEVELOPMENT OF A NEW INCLUSIVE VOLUNTEERING PROGRAMME S.H.S. Lo, J.P.C. Chau, K.C. Choi, M. Demers	6531
PRELIMINARY ANALYSIS OF SELF-CONFIDENCE LABELS OF SECOND LANGUAGE UTTERANCES IN AN ONLINE ASSIGNMENT TO DEVELOP A LEARNING SYSTEM WITH FEEDBACK ADAPTATION Y. Omori, M. Tamura, D. Ikeda	6532
A PROPOSAL TO CREATE A PSEUDO-PARALLEL TEXT CORPUS FOR SIMPLIFYING JAPANESE USING DTW E. Maekawa, H. Murao	6542
COMPETENCES OF SECURITY MANAGERS IN THE FIELD OF SECURITY TECHNOLOGIES NECESSARY FOR SOLVING PANDEMIC SITUATIONS A. Velas, M. Boros, K. Kampova, J. Durica	6551
PROMOTING INTERDISCIPLINARITY AND SUSTAINABILITY SKILLS DEVELOPMENT IN FOOD-RELATED DEGREES: THE CASE OF THE UNIVERSITY OF PISA S. Tomasi, A. Ferrara, C. Mignani, A. Cavicchi	6556
TECHNOLOGICAL UNIVERSITY DUBLIN'S PATHWAY TO EMBEDDING SUSTAINABILITY IN FOOD DEGREES, NEMOS AND BEYOND J. Dunne, C. Barry-Ryan, C. McMahon	6566
STUDY OF THE ELECTRICAL CHARACTERISTICS OF ELECTRONIC COMPONENTS UNDER THE NI LABVIEW ENVIRONMENT A.F. Toure, P.A. Cotfas, D.T. Cotfas, B. Diourte	6576
CONCEPTUAL ILLUSTRATION FOR SUSTAINABLE DEVELOPMENT GOAL NUMBER 4: EDUCATION S. Alcaraz González, M.P. Santiago Martín de Madrid, A. Canavese Arbona, A. Ferriols	6586
DETERMINING FACTORS FOR STUDENT-STAFF INTERACTION: A SYSTEMATIC REVIEW O. Oladipupo, S. Samuel	6587
VIRTUAL AND AUGMENTED REALITY TECHNOLOGY USE IN ACTIVE LEARNING METHODOLOGIES: STUDENTS' PERCEPTIONS C. Lucas, J. Morais, J. Lourenço, N. Neves	6598
MANAGEMENT COMPETENCES AND INTERNSHIPS R. Ferreras-Garcia, J. Sales-Zaguirre	6609
DEVELOPMENT OF MANURIH MODEL INNOVATION AND MEDIA AUGMENTED REALITY TO IMPROVE PROBLEM SOLVING SKILLS D.A. Pratiwi, A.R. Agusta, A. Suriansyah, A.P. Putra, N. Noorhapizah, H. Hartati, V. Santika, I.G. Kariasa	6610
SHORT VIDEO FORMAT AS A NEW OPPORTUNITY TO LEARN AND POPULARIZE SCIENCE A. Soto, J. Duran, A. Poater Teixidor	6625

THE IMPACT OF DISTANCE-BASED EDUCATION DURING COVID -19 ON MATHEMATICS EDUCATION AT THE UNIVERSITY OF ŽILINA Z. Malacká, I. Ilavská	6633
A REVERSE ENGINEERING AND MAKING APPROACH TO ENHANCE LEARNING IN SCHOOL DESIGN PROJECTS M. Greenholts, I. Verner	6634
CHALLENGES, OPPORTUNITIES AND TRENDS IN ENTREPRENEURIAL EDUCATION IN THE EUROPEAN UNION C. Ille, D. Badulescu	6642
EDUCATING STEM STUDENTS TO BE THE FUTURE LEADERS OF THE QUANTUM COMPUTING REVOLUTION E. Muñoz-García, G.L. Dugarte-Peña	6649
SYSTEM DYNAMICS AS A CATALYST FOR THE DEVELOPMENT OF PROBLEM- SOLVING SKILLS IN ENGINEERING STUDENTS G.L. Dugarte-Peña, E. Muñoz-García, N. Gordo-Herrera, C. García de Jesús	6655
MANAGERIAL COMPETENCIES OF GRADUATES: REQUIREMENTS IN THE POST-COVID ERA S. Shchelokova, I. Suslova	6662
DESIGN AND USE OF A CARD GAME FOR LEARNING ABOUT QUANTITATIVE GENETICS AND VARIANCE COMPONENTS APPLIED TO ANIMAL BREEDING: A PILOT STUDY	6663
A. Suárez-Vega, M. Alonso-García, R. Pelayo, P.A.S. Fonseca, J.J. Arranz, B. Gutiérrez-Gil THEORETICAL ASPECTS OF INTRODUCING BLENDED LEARNING TECHNOLOGY IN PRIMARY EDUCATION	6668
K. Zvyagin, I. Kozlova, L. Makhmutova, L. Yuzdova, T. Moskvitina, I. Balandina A TRANSACTIONAL, TRANSFORMATIONAL OR A TRANSFORMATIVE APPROACH TO EDUCATIONAL LEADERSHIP IN LIBERAL ADULT EDUCATION? L. Snellman	6673
THE EXPERIENCE OF MENTORING FIRST-YEAR TECHNICAL UNIVERSITY STUDENTS P. Račková, S. Hoskova-Mayerova	6686
AGILE PRESENTATIONS IN HIGHER EDUCATION: PECHA KUCHA TECHNIQUE C. Aragonés Jericó, P. Canales Ronda, I. Küster Boluda, N. Vila López, A. Hernández Fernández	6694
THE RELATIONSHIP BETWEEN GOVERNMENT EXPENDITURE FOR EDUCATION AND ECONOMIC GROWTH: AN ANALYSIS ON CENTRAL AND EASTERN EUROPEAN COUNTRIES C. Simut, R. Simut	6695
ASSESSING STUDENTS' ATTITUDES TOWARDS ECONOMETRICS A. Suárez Álvarez, M.R. Vicente	6702
EXCESSIVE USE OF THE INTERNET BY CHILDREN DURING THE PANDEMIC T. Chiorean	6703
EDUCATIONAL OPPORTUNITIES IN CLOUD COMPUTING BY AN ENVIRONMENTAL MONITORING SOLUTION USING SELF-PROPELLED ROBOTS U. Žaimis	6709
DEEP LEARNING FOR THE TEACHING OF L2 FRENCH CLITIC OBJECT PRONOUNS A. Jebali	6715
PIONEERING MECHATRONICS EDUCATION AT MICHIGAN TECH: UNDERGRADUATE AND GRADUATE CURRICULA DEVELOPMENT A. Sergeyev	6716
INTERNATIONALIZATION OF THE MECHATRONICS EDUCATION: UNDERGRADUATE AND GRADUATE EXCHANGE AND DUAL-DEGREE PROGRAMS DEVELOPMENT AT MICHIGAN TECH AND HEILBRONN UNIVERSITY OF APPLIED SCIENCES A. Sergeyev, U. Gleiter, A. Meroth	6721
CURRICULUM DESIGN OF A HIGHER DIPLOMA IN ART TECH PROGRAM: THE HONG KONG EXPERIENCE K. Chan, M. Fung, J. Lau	6727
DISCOVERING THE OPPORTUNITIES FOR DEVELOPING CYBERSECURITY AWARENESS IN SECONDARY EDUCATION: A COMPARATIVE STUDY, WALES VS. SAUDI ARABIA S. Meace, F. Carroll, L. Nawaf, D.M. Nouraddin Algahazzwai	6728

INVESTIGATING A MOTIVATION MODEL FOR GAMIFIED E-LEARNING: A SELF- DETERMINATION APPROACH A. Sen, J. Lean, J. Kelland, J. Moizer	6738
COMMUNICATION PREFERENCES OF AIR TEMPERATURE FORECASTS AMONG STUDENTS ENROLLED IN METEOROLOGY-RELATED SUBJECTS I. Gómez, E. Valor, S. Molina, R. Niclòs, V. Caselles	6746
MEASURING SOFT SKILLS IN ENGINEERING EDUCATION: THE CASE OF THEIR TRANSMISSION THROUGH GAMIFICATION ACTIVITIES OR SERIOUS GAMES IN CERTAIN TECHNICAL SCHOOLS OF THE UPM J.J. Morillas-Guerrero	6747
ORAL PRESENTATIONS IN EFL CLASSES ONLINE: THE PROCESS OF PREPARATION A. Daukšaitė-Kolpakovienė	6754
THE DYNAMICS OF TALENT RETENTION: THE ROLE OF TERRITORIES, INDUSTRIES AND EDUCATION J.A. Belso Martínez, M.J. López Sánchez, M. Sánchez Romero	6763
USE OF SOCIAL MEDIA DURING THE COVID-19 PANDEMIC TO ENHANCE CRITICAL THINKING SKILLS IN GEN Z STUDENTS A.L. Sanchez-Lopez, R. Garcia-Varela, Y. Perfecto-Avalos, M. Sepulveda-Villegas, M.I. Jimenez-Perez	6768
DETERMINING EFFICIENCY IN SPANISH UNIVERSITIES (2015-2020) J. Zafra-Gómez, G. Pérez-Lopez, G. López-Pérez, L. Marquez-Arenas, P. Povedano-Fernández	6773
A MAP OF WORRIES – HOW SOCIAL MEDIA IS IMPACTING THE PERCEIVED URGENCY OF ISSUES IN THE CURRENT COLLEGE GENERATION J.C. Del Ama	6782
THE RELATIONSHIP BETWEEN STRESS, ACADEMIC RESILIENCE AND LEARNING OUTCOMES OF STUDENTS DURING COVID-19 PANDEMIC S. Chee Cheang, C. Siow Chin	6792
EXPERIMENTAL TEACHING IN MICROWAVE ELECTRONICS: THE USE OF A ROBOT FOR PROTOTYPING F. Pasadas, A. Medina-Rull, M. García-Palomo, S. Ortiz, M. Pantoja, E.G. Marin, F. Ruiz	6802
SAFETY AND PRESERVATION OF HISTORIC CENTERS IN SEISMIC AREAS: METHODOLOGICAL APPROACHES, OPERATIONAL TOOLS, ITALIAN CASE STUDIES AND BEST PRACTICES F. Maroldi, S. Li Sacchi, F. Dell' Arciprete	6803
DEVELOPMENT OF A SIMULATOR FOR THE SELF-LEARNING OF ENZYMATIC KINETICS	6813
M. Gómez Gómez, E. Gómez Gómez, J. Bastida Rodríguez, F. Máximo Martín, M.D. Murcia Almagro, S. Ortega Requena	
DO QUESTIONS HELP COLLEGE STUDENTS LEARN FROM TEXTS? A. Rubio-Peñarrubia, A.C. Llorens-Tatay, A. Cerveró-Carrascosa	6823
MENTAL HEALTH AS A PREDICTOR OF ACADEMIC PERFORMANCE AND LIFE SATISFACTION DURING THE COVID-19 PANDEMIC J. Bagraim	6824
CITYTELLING - A MULTIDISCIPLINARY TRAINING COURSE FOR THE DEVELOPMENT OF SELF-AWARENESS IN RELATIONAL CONTEXTS STARTING FROM THE ARCHITECTURE OF THE CITY F. Maroldi, M. Buccolieri, V. Cirello	6831
SEIZING THE OPPORTUNITIES AND TACKLING CHALLENGES OF ENGLISH- MEDIUM INSTRUCTION IN HIGHER EDUCATION: TEACHERS' REFLECTIONS ON EMI TEACHING COMPETENCES I. Fekete, R. Koris, M. Folmeg	6840
TASK CONFLICTS IN ONLINE TEAM LEARNING T. Elenurm	6841
N2D: AN ONLINE APPLICATION FOR NFA-TO-DFA CONVERSION AND VISUALIZATION C. Papastavrou, E. Papaioannou, C. Kaklamanis	6849
PROMOTING SUSTAINABLE WATER MANAGEMENT IN THE EASTERN MEDITERRANEAN WITH A NEW INTERNATIONAL MSC PROGRAM G. Zaimes, V. Iakovoglou	6859
DIGITAL UNIVERSITY-WIDE LEARNING FACTORIES AS AN ANSWER TO THE CHALLENGES IN HIGHER EDUCATION IN THE FIELD OF INTERDISCIPLINARY AND APPLICATION-ORIENTED KNOWLEDGE TRANSFER T. Peuschke-Bischof. S. Kubica	6866

CROSS-CULTURAL ASPECTS OF LANGUAGE LEARNING ANXIETY: A CASE OF SEVEN JAPANESE LEARNERS OF ENGLISH IN THE U.S. K. Ohata	6875
SCRUMBAN: AGILE COLLABORATIVE ONLINE LEARNING C. Aragonés Jericó, P. Canales Ronda, A.C. Cuenca Ballester	6885
NEW APPROACHES FOR ON-LINE VIRTUAL REHABILITATION E.T. Avramescu, N.A. Incel, M. Zheleva	6886
PHYSICAL THERAPISTS' OPINION REGARDING ONLINE REHABILITATION AFTER TOTAL HIP REPLACEMENT E.T. Avramescu, M. Mihailov, G. Cosma, M. Dragomir	6892
MEASURING CHARACTER STRENGTHS IN ARMY CADETS: ARE SELF-RATINGS OR OTHER-RATINGS BEST? H. Bang, F. Nilsen, O. Boe, J. Kibsgaard	6899
GIVING VOICE TO MINORITY PUBLIC HIGH SCHOOL STUDENTS THROUGH A DATA LITERACY PROGRAM A. Mello da Fonseca	6900
TRANSLATION, CULTURAL ADAPTATION AND VALIDATION OF THE TPACK-21 QUESTIONNAIRE	6910
A.C. Alemán-Saravia, A. Deroncele-Acosta, H. Robles Mori	6010
LEARNING WITH THE CLASSICS: A PROPOSAL FOR ADVANCED VIRTUAL KNOWLEDGE ACQUISITION THROUGH ANCIENT ROME J. Orozco Messana, A.M. Gonzalvez Pons, M. Starek	6919
FOSTERING SCIENTIFIC RESEARCH IN STUDENTS OF TECHNICAL DEGREES: AN ASSESSMENT AND CONTINUATION M. Galiana Martínez, L. Seguí Gil	6929
EDUCATIONAL PLATFORM AS A MEANS OF DISTANCE LEARNING FOR SCHOOL AND UNIVERSITY STUDENTS L. Yuzdova, Y. Goltseva, R. Kovtun, L. Nesterova, I. Balandina, T. Moskvitina	6936
ENCOURAGING MORE SECONDARY SCHOOL PUPILS TO KEEP STUDYING COMPUTER SCIENCE: THE IMPORTANCE, THE CHALLENGES AND WHAT WORKS C. Pulfrey	6941
CHALLENGES IN TEACHING ARTIFICIAL INTELLIGENCE AND DATA SCIENCE SUBJECTS BY USING GOOGLE COLABORATORY AND JUPYTER NOTEBOOKS D. Sokol, S. Mladenović, D. Krpan	6942
WOMEN LEADERS - SPECIAL CHALLENGES IN THE ENERGY AND MINING SECTOR S. Radovic, K. Bojović	6948
USING SIMULATION IN TEACHING ARTIFICIAL INTELLIGENCE A. Prnjak, G. Zaharija, M. Mladenović, D. Nejašmić	6954
PREDICTING STUDENTS' ACADEMIC SUCCESS IN HYBRID DESIGN STUDIOS WITH GENERALIZED REGRESSION NEURAL NETWORKS (GRNN) V.M. Yonder, G. Elbiz Arslan	6961
HOW DO UNIVERSITY STUDENTS PERCEIVE CLOTHING BRANDS' PERSONALITIES? A SCALE DEVELOPMENT TASK BASED ON MILLENNIAL'S INTERESTS	6968
E. Mora, N. Vila López, I. Küster Boluda INTERACTIVITY AND ANIMATION-SIMULATION TOOLS IN THE DIGITAL PRESENTATION OF EDUCATIONAL MATERIAL N. Annuš. D. Paksi. M. Csóka	6975
LEARNING MANAGEMENT SYSTEMS AND THEIR POSSIBILITIES IN EDUCATION - CASE OF SLOVAKIA N. Annuš, M. Csóka, D. Paksi	6981
INSTRUCTIONAL DESIGN STRATEGIES FOR INTENSIVE ONLINE COURSES: A COGNITIVE SCAFFOLDING APPROACH Y. Dong	6987
TEACHING STUDENTS ABOUT THE USE OF TEXTILE WASTE AS THERMAL INSULATING SYSTEMS A. Bodoga, A. Nistorac	6988
EDUCATIONAL TOOLS USED BY TEACHERS AND STUDENTS IN THE FIELD OF LEATHER GOODS DESIGN A. Bodoga, M. Costea, A. Iovan-Dragomir, A. Nistorac	6995

EFFECTIVE AND UNPRODUCTIVE CLASSROOM TACTICS WHEN DEVELOPING DIGITAL SKILLS, INTERCULTURAL COMMUNICATION & NEGOTIATION COMPETENCIES O. Hernandez-Pozas	7000
A META-ANALYSIS ON THE EFFECTS OF PERFORMANCE-BASED FINANCIAL INCENTIVES ON HIGHER EDUCATION STUDENTS T. Lintner	7008
FUNCTIONAL DISORDERS OF THE MUSCULAR SYSTEM OF UNIVERSITY STUDENTS IN THE STUDY PROGRAM SPECIAL PHYSICAL TRAINING IN SECURITY FORCES R. Lenková, I. Boržíková, M. Ligday	7009
LIFE AND HEALTH PROTECTION COURSE AS AN OPPORTUNITY FOR THE DEVELOPMENT OF KNOWLEDGE OF HIGH SCHOOL STUDENTS R. Lenková, D. Dzugas, M. Ligday, T. Klaček	7015
STUDENT VOICE, PEER REVIEW, AND STUDENT PERFORMANCE: A TRIANGULATION OF DATA TOWARDS HIGHER EDUCATION TEACHING QUALITY J.P. Egan	7021
YES, COVID-19 HAPPENED. HOW DID IT INFORM THE COGNITIVE OVERLOAD OF THE FACE-TO-FACE GENERAL CHEMISTRY LAB THEN AND NOW? J. Ealy, B. Dominguez, L. Veras	7026
QUALITATIVE RESEARCH SUGGESTS HOW TO ENGAGE GEN Z IN THE COLLEGE CLASSROOM TO IMPROVE LEARNING, DECREASE DROP-OUTS M. Loda	7027
LEARNING AND TEACHING METEOROLOGY THROUGH SHORT ANSWER QUESTIONS L. Gimeno, R. Nieto, L. Gimeno-Sotelo, R. Sori, M. Vazquez, M. Stojanovic	7028
ACCESSIBILITY BARRIERS OF VIDEOCONFERENCING TOOLS FOCUSED ON PEOPLE WITH VISUAL DISABILITIES T. Acosta, P. Nso-Mangue, S. Luján-Mora	7029
TWEAKING THE SOFTWARE ENGINEERING FORMAL EDUCATION FOR BETTER PREPARATION OF NOVICES IN THE SOFTWARE INDUSTRY D. Nejašmić, A. Prnjak, D. Sokol, A. Granić	7039
IS THE EDTECH INDUSTRY THE FIX FOR SCHOOLS? A PEDAGOGICAL PERSPECTIVE O. Hadar, Y. Ben-David Kolikant	7044
A COMPARATIVE TO UNDERSTAND E-LEARNING IN PANDEMIC BETWEEN SECONDARY AND UNIVERSITY STUDENTS M. Martínez-Gómez, E. Bustamante García, C. Berná-Escriché, A. Pérez Avellaneda	7049
LEARNING TO PROVIDE ADVICE ON THE HUMAN MICROBIOTA: ESSENTIAL ACTIVITY FOR NUTRITIONISTS, PHARMACISTS, AND FOOD SCIENCE TECHNOLOGISTS	7056
P. Ortiz-Sandoval, A. Lopez-Moreno, A. Torres-Sanchez, A. Matilla, G. Luque, E. Gómez, A. Suárez-García, M. Monteoliva-Sanchez, M. Aguilera-Gomez, A. Ruiz-Rodriguez	
THE IMPLEMENTATION OF THE DESIGN OF THINKING AND CO CREATION THEORIES IN HEI THROUGH T-CREPE PROJECT M. Sigala, E. Vardakosta, G. Priniotakis, E. Gyalinou, D. Nikolopoulos, A. Tsikritsis	7066
3D TECHNOLOGIES FOR DIGITALIZATION AND CREATION OF NEW EDUCATIONAL RESOURCES IN ENGINEERING D. Chikurtev, A. Chikurteva, S. Gyoshev	7073
EXPERIENCE FROM THE FIELD IN SIERRA LEONE ON CAPACITY BUILDING OF MEDICAL PARASITOLOGY A. Peña-Fernández, M.A. Peña, G. Torrado, R.E. Guetiya Wadoum	7082
TRAINING TO RESPOND TO PHARMACEUTICALS AND PERSONAL CARE PRODUCTS IN THE FOOD CHAIN A. Peña-Fernández, G. Torrado, M.D. Evans, M.A. Peña	7088
ELECTRONIC EXAMS WITH LARGE STUDENT COHORTS IN THE CLASSIC LECTURE HALL - AN IMPOSSIBLE VENTURE? CONCEPTS AND PRACTICAL EXPERIENCE WITH BIG BYOD EXAMINATIONS AT THE TECHNICAL UNIVERSITY OF MUNICH M. Baume	7093
READINESS FOR CHANGES IN LIFE AND EXPERIENCING THE EXISTENTIAL FULFILLMENT OF LIFE AMONG UNIVERSITY STUDENTS G. Kozhukhar, E. Breus, A. Belousova	7094

ONLINE PROCTORED EXAMS DURING THE COVID-19 PANDEMIC AT THE TECHNICAL UNIVERSITY OF MUNICH: HOW HAVE STUDENTS' PERCEPTIONS OF THIS EXAMINATION FORMAT CHANGED OVER THE COURSE OF FOUR PANDEMIC SEMESTERS? M. Baume	7099
THE UTILITY OF KAHOOT! TO EVALUATE CONCEPTUAL KNOWLEDGE ASSIMILATION IN THE SUBJECT "CELL BIOLOGY" IN THE DEGREE OF DENTISTRY A. Bizy, C.J. Calvo, L. Such-Miquel, M.M. Bernabé Villodre, M. Zarzoso-Muñoz	7110
CROATIAN TEACHING IN THE REPUBLIC OF SERBIA: TEACHERS' EXPERIENCES A. Ordulj, R. Bušljeta Kardum, M. Uršal, L. Andreis	7114
ENGLISH EDUCATION IN ITALY: A CASE STUDY M. Verardi	7115
TEACHERS' PERSPECTIVES OF THE IMPACT OF EMERGENCY REMOTE TEACHING ON ENGLISH AS A FOREIGN LANGUAGE STUDENTS WITH SPECIAL EDUCATIONAL NEEDS A. Gatsotis, D. Vlachopoulos	7119
USE OF SUBTITLED FILMS TO IMPROVE LISTENING IN ENGLISH FOR HIGH SCHOOL STUDENTS A. Zambrano Delgado, R. Macias Sera, V. Alcivar Calderon, M.G. Maranon Delgado	7124
USE OF GAMES TO IMPROVE READING COMPREHENSION IN ENGLISH FOR HIGH	7129
SCHOOL STUDENTS M.G. Maranon Delgado, V. Alcivar Calderon, R. Macias Sera, A. Zambrano Delgado	
SERVICE-LEARNING AND CASE-BASED ACTIVITIES IN PRACTICAL WORKSHOPS TO ENHANCE ACTIVE LEARNING AND INSTRUMENTAL SKILLS C.J. Calvo, A. Bizy, M. Zarzoso-Muñoz	7134
EMPOWERING YOUNG PROFESSIONALS THROUGH MENTORING: A PRACTICAL EXAMPLE FROM LOGISTICS S. Eitler, R. Schodl	7142
INTERCULTURAL SKILLS ACQUISITION THROUGH VIRTUAL EXCHANGE EXPERIENCES: GAINING AN EDGE IN INTERNATIONAL BUSINESS EDUCATION E. Buckwalter, S. Robinson	7147
TRAINING PHYSICS TEACHERS FOR EFFECTIVE ONLINE LESSONS: A VIRTUAL SCHOOL EXPERIENCE M. Carli, O. Trevisan, L. Gabelli, S. Lippiello, M. Phillips, R. Gargiso, T. Mannix	7156
SUPERVISED TEACHING PRACTICE: A WAY TO (RE)DEFINE THE INITIAL TRAINING OF STUDENTS IN HIGHER EDUCATION M.F. Sampaio, M.F. Caldeira	7166
A PROJECT TOWARD ASSEMBLING OF A NEXT-GENERATION ICT LEARNING ENVIRONMENT FOR CONTINUOUS LEARNING R. Matsuba, A. Kai, T. Nagai, S.I. Kubota, Y. Suzuki, N. Hiraoka	7172
INTERNATIONALISATION OF THE LEARNING- TEACHING PROCESS AT LATVIA UNIVERSITY OF LIFE SCIENCES AND TECHNOLOGIES (LATVIA) AND UNIVERSITY OF TOKUSHIMA (JAPAN) THROUGH INTERNATIONAL PROJECT ACTIVITIES D. Grasmane, I. Gode	7177
MOTIVATION TO STUDY COMPUTER SCIENCE AT UNIVERSITY R. Suviste, S. Lannes, M. Säde	7189
PROMOTING SOCIAL COOPERATIVE ENTREPRENEURSHIP IN HIGHER EDUCATION: A PRACTICAL CASE OF AN INTERNATIONAL JOINT EDUCATION PROJECT R. Khan, M. Suonpää	7195
DESIGN OF ADAPTIVE MICRO-MODULES FOR AI-RELATED COURSES USING 2D DEPTH MATRIX H. Mokayed, M. Liwicki	7203
SERIOUS GAMES IN LEARNING FOREIGN LANGUAGES: EDUCATIONAL BENEFITS E. Vakoula, P. Psomos	7208
DISTANT VS FACE-TO-FACE VS HYBRID LEARNING: PROS & CONS FOR PROFESSIONAL EDUCATION I. Burak, T. Razumova	7215
RELATIONSHIP BETWEEN ACADEMIC ACHIEVEMENT AND THE ESTIMATED FINANCIAL STATUS OF STUDENTS WHO ARE PERCEIVED BY THEIR CLASSROOM TEACHERS TO HAVE BEHAVIORAL DIFFICULTIES N. Vlah, I. Batarelo Kokić	7219

DESIGN AND APPLICATION OF AN ORIGINAL APP OF QUIZZES IN REAL TIME WITH GAMIFICATION ELEMENTS: A PILOT EXPERIENCE IN HIGHER EDUCATION ACCOUNTING SESSIONS L. Saraite-Sariene, C. Herrero-Sánchez, A. Haro-de-Rosario, A. Sáez-Martín, M. García-Tabuyo, M. Sierra-Fernández	7223
A MULTI-STAGE APPROACH FOR INTRODUCING IOT PROTOTYPING INTO STEM- DRIVEN COMPUTER SCIENCE EDUCATION R. Burbaité, V. Štuikys, G. Ziberkas, R. Kubiliūnas	7224
ALBERTO MANZI: POPULAR EDUCATION AND ADULTS' LITERACY. PEDAGOGY AND TEACHING STRATEGIES FROM TELEVISION BROADCASTS C. Paganoni	7234
SOCIAL MEDIA IN EDUCATION S. Alles	7240
INTRODUCING AN OPEN-SOURCE SOFTWARE FOR THE ENTERPRISE RESOURCE PLANNING IN THE BUSINESS MANAGEMENT DEGREE A. Puig-Denia, B. Forés, J.M. Fernández-Yáñez, M. Boronat-Navarro	7250
SUPPORTING PRIMARY STUDENTS' AGENCY AT SCHOOL THROUGH LIFE-WORLD EXPERIENCES K. Nurmik, I. Timoštšuk	7259
GOMA: AN ACTIVE PROGRAM THAT AIMS TO EMPOWER STUDENTS IN RURAL AREAS THROUGH EDUCATION AND SCIENCE R. Branquinho, C. Sarabando, S. Ambrósio, C. Damião, J. Duarte	7267
THE PHENOMENON OF ORCHESTRAL PRACTICE: IMPLICATIONS FOR STUDENT MOTIVATION AND LEARNING - TEACHERS' POINT OF VIEW A. Fonseca	7276
COUNTERING ONLINE DISINFORMATION IN ROMANIA: MEDIA LITERACY AS PART OF A WIDER FRAMEWORK F. Durach, A. Ionescu, I. Călin, M. Enache	7285
IN-SERVICE TRAINING FOR TEACHERS IN ENTREPRENEURSHIP EDUCATION IN ESTONIA Ü. Kesli, M. Partei, L. Ariva	7296
EMPOWERING SCIENTISTS TO COMMUNICATE SCIENCE - THE CASE OF SMALL-SCALE BIOLOGICAL COLLECTIONS B. Vieite, A. Ravara, M.R. Cunha, P. Beça	7306
SCHOOL LEADERS: FROM CRISIS MANAGEMENT TO DIGITAL TRANSFORMATION? C. Caneva, C. Pulfrey	7310
COACHING TEACHERS IN A DIGITAL EDUCATION REFORM: WHAT IS THE ROLE OF INSTRUCTIONAL COACHES? C. Caneva, C. Pulfrey	7321
THE CONTRIBUTION OF SCHOOL NETWORKS IN THE IMPLEMENTATION OF PUBLIC POLICIES: WHEN A RESEARCH PROJECT BECOMES A RESEARCH OBJECT – THE CASE STUDY OF THE ESCXEL NETWORK IN PORTUGAL L. Pascueiro, P. Reis	7322
MOTIVATION AND LEARNING STRATEGIES OF HEALTH SCHOOL STUDENTS FOR INFORMATICS COURSES J. Šimunović, M. Mladenović, A. Alajbeg	7328
WHAT CAN WE LEARN FROM DESIGNING A LEARNING GAME? M. Voss, A. Geniets, N. Winters	7337
MENTORING AND TUTORING: PROPAEDEUTIC PHYSICS J. Daza, M.L. Escoda, M. Soler, J. Planella, J.J. Suñol	7342
NEW TECHNOLOGIES APPLIED TO A PHYSICS LABORATORY M.L. Escoda, M. Soler, J. Daza, J. Planella, J.J. Suñol	7347
MOBILE LEARNING TRENDS AND USE IN ENGINEERING EDUCATION L. Galleguillos Peralta, P. Backhouse, R. Romero, I. Santelices	7354
DIGITAL TRANSFORMATION IN HIGHER EDUCATION: HOW LEGO® SERIOUS PLAY® EXPLORATORY STUDY MADE IT FUN T. Lucio Nieto, Y. Martinez Treviño	7365
AN EARLY PREDICTION OF ACADEMIC SUCCESS USING MULTI-SOURCE DATA MINING AND MACHINE LEARNING ALGORITHMS FOR STUDENTS TAUGHT IN ONLINE AND HYBRID MODES AFTER COVID-19 N. Anderson, A. McGowan, L. Galway, J. Adhikari, D. Cutting	7374

CASE STUDY ON IMPROVING ADULT LEARNING L.G. Popescu	7375
CONNECTING THE DISCONNECTED: A STUDY OF ONLINE THEATRE LEARNING AND PRACTICE BY UNIVERSITY STUDENTS DURING THE COVID-19 PANDEMIC M. Yang	7383
COORDINATED TEACHING OF POWER SYSTEM SIMULATION IN A UNIVERSITY MULTICAMPUS STRUCTURE M. Cañas-Carretón, A. Honrubia-Escribano	7389
THE INFLUENCE OF FAMILY EDUCATION AND THE SCHOOL ENVIRONMENT ON MINIMIZING BULLYING IN SECONDARY SCHOOL STUDENTS G. Gabrhelová, Z. Geršicová, B. Mačová, M. Masáriková	7398
THE "STOP, PAUSE, AND BREATHE" DIGITAL MOVEMENT! M. Regester	7405
DEVELOPMENT OF HARD SKILLS FOR THE PROCESS OF DIGITAL ENTREPRENEURIAL EDUCATION IN HIGHER EDUCATION INSTITUTIONS A.P. Garcez, M. Franco, R. Silva	7406
TALK LIKE A PRO: FROM PSYCHOPEDAGOGICAL PROJECT TO SKILLS TRAINING C. Costa-Lobo, H. Wafunga, V. Capellini, A. Vazzoler-Mendonça	7412
THE ROLE OF THE INTERNSHIP MENTOR IN DEVELOPING THE SKILLS OF ENGINEERING STUDENTS L.G. Popescu	7417
HIGHER EDUCATION COURSES – BEFORE, DURING AND AFTER THE COVID-19 CRISIS P. Mihnev, T. Zafirova-Malcheva	7422
ACCELEROMETER-MEASURED PHYSICAL ACTIVITY IN PORTUGUESE CHILDREN FROM A RURAL AREA: A SCHOOL-BASED CROSS-SECTIONAL STUDY C. Vasques, T. Sampaio, J. Teixeira, S. Ginja, P. Magalhaes	7433
DESIGN, DEVELOPMENT & EVALUATION OF A SERIOUS GAME ON COMPUTATIONAL THINKING P. Psomos	7441
THE DEVELOPMENT OF A SOCIAL-HAPTIC COMMUNICATION DICTIONARY, A NEW COMMUNICATION RESOURCE FOR THE DEAFBLIND IN ITALY L. Volpato	7442
HOW DO NLP-SUPPORTED SCAFFOLDING TECHNIQUES SUPPORT STUDENTS' WRITTEN REFLECTIONS? A. Butt, S. Anwar, M. Menekse	7450
SELF-ACTUALIZATION FEATURES AMONG EU AND RUSSIAN UNIVERSITY STUDENTS I. Novikova, A. Guseynova, B. Vayderman	7451
SUPPORTING TEACHERS' PROFESSIONAL DEVELOPMENT ON INCLUSIVE LEARNING DESIGN: A CASE STUDY OF AN ERASMUS+ PROJECT D. Persico, F.M. Dagnino, F. Manganello, M. Passarelli, F. Pozzi, N. Nikolova, K. Stefanov, K. Anagnostou, T. Georgieva, C. Kyriakides, M. Lonigro	7456
PROPOSALS FOR THE IMPLEMENTATION OF AN AUTOMATED SYSTEM FOR ONTOLOGIES COMPARING E. Smirnova, E. Manyashev, E. Gavrilova	7465
KNOWLEDGE PILLS TO REINFORCE THE TEACHING-LEARNING IN THE PHARMACY DEGREE AT UCLM J.M. Sánchez, A. Sánchez, J.A. Castro, J.C. García, G. Blázquez, A. Sousa, J. Tolosa, C. Alonso, M.L. Nueda, V. Rodríguez, M. Zougagh, A. Garzón, I. Bravo, C. Martín, M.F. Galindo, M.J. Santander-Ortega, P. Clemente-Casares, M.T. Alonso, M.R. Fernández-Santos	7474
CORRELATION OF UNIVERSITY ENTRANCE EXAM SCORES WITH UNIVERSITY PERFORMANCE J.A. López-Vázquez, A. Suárez-García, E. Arce-Fariña, R. Devesa-Rey, M. Novo-Pérez	7479
ASSOCIATIONS BETWEEN BULLYING VICTIMIZATION, HARM SEVERITY PERCEPTION AND LOW ACADEMIC PERFORMANCE V. Marcos, A. Montes, M. Novo-Pérez, J. Sanmarco	7483
CLOSENESS AND CONFLICT BETWEEN TODDLERS AND EARLY CHILDHOOD EDUCATORS: WHAT IS THE ROLE OF THEIR PERSONAL CHARACTERISTICS? S. Tatalović Vorkapić	7488

EFFECTIVENESS OF CONCEPT CARTOONS USAGE ON STUDENTS' ATTITUDES TOWARDS PRIMARY SCIENCE CLASSES A. Letina	7498
INTRODUCTION OF SELF-PACED METHODOLOGIES IN BASIC ELECTRONICS LABORATORIES	7506
E.G. Marin, A. Toral-Lopez, J. Cuesta-Lopez, A. Medina-Rull, F. Ruiz, A. Godoy, J. Banqueri, S. Cuadros, M.C. Fernandez, F. Pasadas	
USING IPAC (INDIVIDUAL PEER ASSESSMENT OF CONTRIBUTION) SCORES TO INVESTIGATE INTERNATIONAL STUDENT COLLABORATION IN GROUP WORK P.Y. Lam, T. Sharma, M.G. Sagoo, A. Wu	7507
WHAT DO PARENTS THINK ABOUT THEIR COOPERATION WITH KINDERGARTEN AND THE LOCAL COMMUNITY DURING THEIR CHILDREN'S TRANSITIONS? – EMPIRICAL STUDY FROM CROATIA S. Tatalović Vorkapić, D. Napijalo, D. Anđić	7518
GOOD PRACTICE IN RESEARCH F.J. Arteaga, A.I. Peirats	7527
GOOD PRACTICES IN IMPROVING THE PROMOTING PROCESS OF FRENCH LANGUAGE PROGRAMS M.V. Zerbes, D. Baron, R. Roman, L.G. Popescu, A. Olteanu	7532
A SUGGESTIVE COURSE DESCRIPTION ON FORM DESIGN PRACTICE IN THE ARCHITECTURE STUDIO M. Pirdavari	7541
THE IMPACT OF FORM DESIGN PRACTICES ON THE STUDENTS' PERFORMANCE IN ARCHITECTURE DESIGN STUDIO. IMPROVING STUDENTS' ABILITY IN FORM FINDING AND DESIGN CREATIVITY: ANALYZING THE CASE STUDY OF DESIGN PROCESS GROUP'S ARCHITECTURE COMPETITIONS M. Pirdavari, Z. Akbari	7551
USING IMMERSIVE ENVIRONMENTS TO IMPROVE MOTOR PERFORMANCE IN FOOTBALL A.B. Stănescu, A. Antonescu, R.V. Rughiniş	7561
"THE GOLDEN TRIANGLE" – CULTIVATING ACADEMIC VOCABULARY TO PROMOTE LITERACY IN ARABIC AS A FIRST LANGUAGE IN MIDDLE SCHOOLS B. Makhoul, T. Copti-Mshael, E. Olshtain	7570
WHAT ARE THE PROBLEMS LIKE IN THE WORLD'S LARGEST INTERNATIONAL MATHEMATICAL OLYMPIAD? M. Akveld, L. Caceres, O. Colon	7580
A SOFTWARE MODEL COMPARISON APPROACH DESIGNED FOR SELF- ASSESSMENT TUTORIALS S. Vaupel, D. Waldmann	7581
NEW LEARNING OBJECTIVES FOR LANGUAGE AND COMMUNICATION TEACHING IN THE DIGITAL AGE: THE 2DIGI2 PROJECT IN FINLAND D. Erent	7591
CREATIVE AND INVENTIVE DESIGN SUPPORT SYSTEM: DX APPLICATION DESIGN PROCESS FOR STUDENT EDUCATION VIA A PROJECT-BASED LEARNING ENVIRONMENT Y. Otsuka, M. Tsukamoto, H. Hasegawa	7592
THE EDUCATION FOCUSSED PROGRAM AT UNSW – BUILDING EDUCATIONAL ACADEMIC CAREERS IN A RESEARCH-INTENSIVE UNIVERSITY K. Watson, C. Fleischner	7600
HOW CAN THE USE OF PARTICIPATORY AND CO-CREATION APPROACHES ENHANCE YOUNG PEOPLE'S CIVIC PARTICIPATION FOR CLIMATE CHANGE ADAPTATION? S. Pinheiro, A.C. Torres, J. Diógenes-Lima, B. Pereira, C. Malafaia	7604
PERCEPTION OF DIGITAL TEACHER COMPETENCIES AMONG MEXICAN STUDENTS IN TEACHER TRAINING INSTITUTIONS P.J. Canto Herrera, H.S. Flores Castro, A.S. Esquivel Guemes	7611
DISTANCE LEARNING MODELS FOR ACADEMIC CONTINUITY DURING THE COVID-19 PANDEMIC R. Benitez-Medina, S. Juárez Ordoñez, M. Uribe-Packza	7612
ADVANCING STUDENT ENGAGEMENT THROUGH VIDEO ASSESSMENT FOR SKILL DEVELOPMENT AND FEEDBACK P. Cancro, R. Best, L. Bobley, I. Rabinovitch	7618

LEARNING HISTORY AND STUDENTS' SELF-AWARENESS OF ACADEMIC PROCRASTINATION IN ON-DEMAND COURSES Y. Suzuki, S. Kubota, R. Matsuba, E. Kamishiraki, T. Obata, M. Nakashima	7619
VISUAL COMMUNICATION DESIGN AND SUSTAINABILITY: REFLECTIONS FROM A PILOT COURSE WITH DESIGN FOR SUSTAINABILITY METHODS AND TOOLS T. Bui, T. Ngo, P. Dang	7624
CINEMA AND TV SERIES AS A PEDAGOGICAL RESOURCE IN ENGINEERING E. Duran, M. Lorite-Díez	7634
EDUCATION FOR SUSTAINABILITY THROUGH RENEWABLE ENERGY D.T. Cotfas, P.A. Cotfas	7639
THE INSTRUCTORS PERSPECTIVE REGARDING CAMERA USE IN DISTANCE LEARNING: ITS IMPACT ON BOTH INSTRUCTOR AND STUDENTS S. Alim, S. Petsangsri, J. Morris	7649
DYNAMICS OF THE SUPERVISION'S REQUESTS AMONG PSYCHOLOGICAL STUDENTS AT THE PSYCHOLOGICAL CLINIC OF ST. PETERSBURG STATE UNIVERSITY E. Zinovyeva, N. Iskra	7658
THE USE OF ART THERAPY TECHNIQUES IN THE MANAGEMENT OF THE EMOTIONAL STATE OF MILITARY PERSONNEL Z. Madaliyeva, G. Kassen, N. Sadykova, L. Baimoldina, A. Gabdrakhman	7664
BARRIERS IN THE SCHOOLING OF ADOPTED CHILDREN N. Iskra, T. Dorofeeva	7673
FUTURE OF INTERNATIONAL TERTIARY EDUCATION - OPERATING IN AN INSULAR WORLD I. Meyer	7678
THE PRACTICE OF INTERDISCIPLINARITY IN NEW ENGINEERING EDUCATION: CASE STUDIES FROM CHINA'S HIGHER EDUCATION INSTITUTIONS X. Guo, Z. Zou, L.R. Zheng	7684
STUDENT VOICE AND TEACHER ROLE: VIEWS OF PRE-SERVICE TEACHERS IN GREECE K. Tsoli	7689
THE IMPACT OF THE PANDEMIC ON UNIVERSITY STUDENTS AND TEACHERS K. Kovacikova, M. Kovacikova, M. Balaz	7699
THE IMPACT OF DUAL LEARNING IN HIGHER EDUCATION A. Willems, M. De Wolf, S. Timmers, S. Bruneel	7704
THEORETICAL-PRACTICAL CONFERENCES DELIVERED BY FORMER STUDENTS TO IMPROVE THE TRAINING AND MOTIVATION OF UNIVERSITY STUDENTS N. Casado, J. Gañán, I. Sierra, S. Morante-Zarcero	7705
DEVELOPMENT OF A SYSTEM TO SUPPORT GRASPING FOSTERING STATUS OF STUDENTS' QUALITIES AND ABILITIES FROM TEXT DATA OF REFLECTIONS ON LEARNING K. Hagiwara, K. Maruyama, Y. Morimoto	7713
CHOICE LEARNING THROUGH PLATFORMS IN ACCOUNTING EDUCATION T. Filer, L. Davies	7723
DEVELOPMENT OF A SUPPORT SYSTEM OF REFLECTION ON LEARNING IN METAVERSE USING CHANGE-POINT DETECTION R. Tanaka, H. Edakubo, Y. Morimoto	7724
PERSONALISED AND DEEPER LEARNING OPPORTUNITIES USING LEARNING EXPERIENCE PLATFORMS E. Pranckūnienė, R. Girdzijauskienė	7734
GAMIFICATION EXPERIENCE COORDINATED BETWEEN SUBJECTS OF THE DEGREE IN FOOD SCIENCE AND TECHNOLOGY AT THE REY JUAN CARLOS UNIVERSITY THROUGH SEVERAL ACADEMIC YEARS (2019-2023) N. Casado, J. Gañán, S. Morante-Zarcero, G. Martínez García, D. Pérez-Quintanilla, I. Sierra	7742
INTERNAL INFORMATION FLOW IN A HIGHER EDUCATION INSTITUTION: AN EXAMPLE FROM THE FACULTY OF SOCIAL SCIENCES OF UNIVERSITY OF TARTU H. Urmann, E. Tubelt	7752
COMPETENCE DEVELOPMENT THROUGH CHALLENGE BASED LEARNING EXPERIENCES I. García-Hernández, C. Barrera, M.I. Castelló, A. Heredia, I. Seguí Gil	7760

ENHANCING LIBRARIAN SKILLS WITH THE BIBLIO MOOC A. Kameas, E. Georgakakou, I. Messalas	7771
DEVELOPMENT OF A SYSTEM FOR LEARNING PATENT ACT TEXTS WHILE DRAWING THE MODIFICATION STRUCTURE BETWEEN CLAUSES OF THE TEXTS T. Akakura, T. Kano	7777
USING GA4 MEASUREMENTS TO CHARACTERIZE THE USE OF BIOSTATISTICS ONLINE SUPPORT DOCUMENTATION J. Cruz, A. Freitas	7787
DESIGNING E-LEARNING ACTIVITIES FOR SENIOR LEARNERS BASED ON CORE DRIVE ANALYSIS USING THE OCTALYSIS GAMIFICATION FRAMEWORK: RESULTS FROM THE EPA-COACH PROJECT I. Buchem, V. Kauth, M. Kirschen, M. Katzer	7792
IMPROVING CULTURAL RELATIONS BETWEEN POLYTECHNIC SCHOOLS OF NAPLES AND MADRID BY UNIVERSITY WORKSHOPS ON URBAN LANDSCAPE BETWEEN MATERIALS AND TECHNIQUES R. Castelluccio, M. Fumo, G. D'Angelo	7802
HOW IMPORTANT IS THE DISSEMINATION OF SCIENTIFIC KNOWLEDGE IN KIDS? WHEN THE FACULTY OF PHARMACY GOES TO SCHOOL J. González Fuentes, J. Laborda, P. Clemente-Casares, M.V. Lozano, C. Ripoll, C. García, M.M. Arroyo-Jiménez, N. Villaseca-González, T. Argente, L. Castro-Vázquez, A. Sousa, A. Ruiz, J.C. García, M.R. Fernández-Santos, M.F. Galindo, E. Domínguez, D. Herrera, D. Capilla, I. Posadas, M.D. Pérez-Carrión, J. Selva, M.J. Santander-Ortega, C. Martín	7808
ONLINE COURSE FOR ENHANCING TEACHERS' DIGITAL SKILLS THROUGH COLLABORATIVE AND PEER LEARNING T. Panagiotakopoulos, F. Lazarinis, A. Kameas	7814
IMPLEMENTING THE SUSTAINABLE DEVELOPMENT GOALS IN HIGHER EDUCATION: A RESEARCH AGENDA R. González-Sánchez, M. Torrejón-Ramos, S. Alonso-Muñoz	7822
NEW ATTEMPT TO FACILITATE TEAMWORK LEARNING AND FAIR ASSESSMENT OF COLLABORATIVE PROJECTS IN HIGHER EDUCATION N. Rojo, A. Barona, B. Fernandez-Gauna, Z. Gomez de Balugera, D. Encinas	7830
MAPPING THE ROLE OF ETHICS IN THE SUSTAINABILITY REPORTING. IMPLICATIONS FOR EDUCATION INSTITUTIONS V. Correa Porcel, M.P. Casado Belmonte, M.M. Capobianco-Uriarte	7837
THE ATTITUDE OF HIGH SCHOOL TEACHERS TO THE DIMENSION OF INTERNATIONALITY IN PEDAGOGICAL STUDIES D. Straksiene, I. Kaffemaniene, E. Masiliauskiene, D. Razmaite	7838
THE SCIENCE MAILBOX: SCIENTIFIC OUTREACH ON SOCIAL MEDIA DURING THE PANDEMIC C. Cela Rodríguez, C. Majano López de Madrid, C.L. Utrilla Carriazo	7844
WHEN ART MEETS PHYSICS: THE PERFECT ASYMMETRY D. Domenici, E. Dané, E. Patrignanelli, S. Bertelli, P. Scoppola	7852
RELATIONSHIP BETWEEN LEARNING AND CAREER DEVELOPMENT IN THE CIVIL SERVICE A. Valickas, R. Pilkauskaite Valickiene	7856
RE-IMAGINING ASSESSMENT IN A POST PANDEMIC WORLD S. Ratner	7860
FUTURE TEACHERS' OPINIONS ON THE QUALITY OF STUDIES AND THE POSSIBILITIES OF INTERNATIONALIZATION IN TEACHER TRAINING STUDY PROGRAMS	7867
I. Kaffemaniene, D. Straksiene, E. Masiliauskiene, D. Razmaite COUPLED HUMAN ACTION AS A CURRICULUM SUBJECT: THE URGENT NEED FOR RESTORATIVE HUMAN ACTION IN SCIENCE AND LEISURE P. Felicio, M.L. Spazziani, N.N. Rumenos, E.J. Manoel	7876
IDEAL PROJECT - INCLUSIVE DIGITAL EDUCATION FOR AUTISTIC PEOPLE LEARNING M. Cophé S. Podrácuaz Caro, I.I. Cuesta Cárnaz, P. Moraio Parcina, M. Marino, M. Cárnaz, Cantil	7881
M. Corbí, S. Rodríguez-Cano, J.L. Cuesta-Gómez, P. Morais-Barcina, M. Merino, M. Gómez-Gentil USING THE ONLINE GAME 'WORDLE' IN THE LANGUAGE CLASSROOM S. Connor	7882
THE IMPORTANCE OF OUTDOOR SPACES IN THE DEVELOPMENT OF CHILDREN'S COMPETENCIES AND MOTOR AND SOCIAL SKILLS C. Vasques, C. Ribeiro, C. Mesquita	7886

A FRAMEWORK FOR TERTIARY CONSTRUCTION MANAGEMENT HEALTH AND SAFETY EDUCATION J. Smallwood	7887
THE LIVERPOOL EDUCATOR EXPERIENCE: ENHANCING REGISTERED HEALTHCARE EDUCATORS' EXPERTISE AND CONFIDENCE DURING THE COVID 19 PANDEMIC BY DEVELOPING AN ONLINE COURSE D. Prescott, S. Canning, V. Barnes-Brown, M. Pountney	7892
SYNTHESIZING A CONCEPTUAL FRAMEWORK FOR ASSESSMENT IN ONLINE EDUCATION A. Millet, E. Dinc	7893
COMPETENCES OF EMPLOYEES OF INDUSTRIAL ENTERPRISES IN ACCORDANCE WITH THE INDUSTRY 4.0 REQUIREMENTS N. Vraňaková, M. Mĺkva, P. Szabó	7900
EVALUATION BEFORE AND AFTER THE COVID PANDEMIC: THE CASE OF UNIVERSIDAD AUTÓNOMA METROPOLITANA M.G. Castillo-Tapia, J. Figueroa-González, S.B. González-Brambila, B.A. González-Beltrán, L. Sánchez-Guerrero	7908
A MAN WHO MAKES NO MISTAKES USUALLY DOES NOTHING - THE ACADEMIC AND BUSINESS APPROACH TO GAME DEVELOPMENT EDUCATION - A CASE STUDY M. Badurowicz, P. Gałach, S. Skulimowski	7916
EVALUATION AND APPLICATION OF THE METHOD PROBLEM & PROJECT-BASED LEARNING IN THERMODYNAMICS FOR SUSTAINABILITY: 4E TECHNIQUES S. Sánchez Orgaz, I. López Paniagua, C. González Fernández, J. Rodríguez Martín, A. Jiménez Álvaro	7923
VISUAL LEARNING STATISTICS, WHAT CAN BE LEARNED FROM VISUALIZING DATA IN AN EDUCATIONAL ENVIRONMENT? B.A. González-Beltrán, J. Figueroa-González, L. Sánchez-Guerrero, S.B. González-Brambila	7930
PERCEPTIONS OF HIGHER EDUCATION STUDENTS ON REMOTE EDUCATION AFTER THE COVID-19 CRISIS S. Sá, M.C. Fierro-Evans, A. Veraksa, C.A. Gomes, C.A. Meneses Sousa	7937
GAMES LEARNING AS A SUPPORT FOR UNIVERSITY EDUCATION P. Szabó, N. Vraňaková, M. Mĺkva, S. Janík	7942
IMAGINING A NEW ERA OF EDUCATION: THE INEVITABILITY OF EMBRACING DIGITAL TRANSFORMATION H. Schoeman, K. Naidoo	7948
SIMULATING AN INSTAGRAM EMPLOYER BRANDING CAMPAIGN BY IMPLEMENTING AGILE METHODOLOGIES L. Andreu, S. Arenas, A. Soler, R. Porcuna	7961
FAMILY AND PARENTING: A STUDY OF SUPPORT NEEDS IN TIMES OF COVID-19 IN THE ANGOLAN CONTEXT C. Calengue, S. Sá	7965
CHANGES IN THE PRIORITY OF EDUCATION IN INDUSTRIAL ENTERPRISES IN SLOVAKIA Z. Gyurák Babelová, E. Kubišová, D. Babčanová	7966
A LECTURER'S PERSPECTIVE ON A STUDENT-CENTRED LEARNING EXPERIENCE H. Schoeman	7974
SELECTED ASPECTS OF EDUCATION AT THE COLLABORATIVE WORKPLACES IN INDUSTRIAL ENTERPRISES A. Pauliková, L. Jurík, Z. Gyurák Babeľová	7983
THE IMPACT OF REMINDER NUDGE ON STEM STUDENTS' APPLICATION ENGAGEMENT A. Butt, M. Menekse	7992
THE SOCIAL TURN IN SECOND LANGUAGE WRITING INSTRUCTION: A QUARTER-CENTURY OF RESEARCH R. Lavin	7993
RESPONDING TO A PANDEMIC, A PAN-INSTITUTE APPROACH N. Harding, E. Kelly, G. McDermott, AM. O'Brien, C. O'Donoghue, N. Tierney, D. O'Hanlon, S. Ryan, G. Stack	7998
CONSEQUENCES OF PSYCHOLOGICAL OWNERSHIP ON THE DEVELOPMENT OF OPEN EDUCATION RESOURCES (OER) A. Schneider, M. Baumgart, C. Lindner	7999

A CRITIQUE OF THE METHODOLOGICAL APPROACHES FOR CRITICAL REALISM (CR) USING A THEORY-DRIVEN RESEARCH DESIGN UNDERPINNED BY SOCIAL PRACTICE THEORY (SPT) N. Harding	8000
THE IMPORTANCE OF STUDENT EDUCATION IN THE FIELD OF CIVIL PROTECTION FOR SECURITY IN MUNICIPALITIES J. Kubás	8001
THERE'S NO PLACE LIKE THE CURRICULUM FOR INTERNATIONALISATION AT HOME E. Kelly, C. O'Donoghue	8007
THE USE OF VIRTUAL REALITY FOR THE EDUCATION OF CRISIS MANAGERS IN MUNICIPALITIES A. Kelíšek, J. Kubás, M. Ballay, K. Petrlová	8014
LEARNING ANALYTICS OF TOTEMM VIRTUAL LEARNING RESOURCES - TRANSFORMING TRANSNATIONAL INTERCULTURAL SENSITIVITY FOR MIDWIFERY STUDENTS THROUGH AN INCLUSIVE MOBILITY MODEL M. Pears, J. Henderson, A.M. Smit, M. Van Oost, S. Sara Borrelli, L. Walker, A. Nespoli, S. Fumagalli, S. Mets-Oja, A. Karema, H. Spiby, S. Konstantinidis	8021
DIGITAL TECHNOLOGIES AND INNOVATIVE LEARNING ENVIRONMENTS: A PROJECT FOR STUDYING ITS IMPACT ON STUDENTS' PERFORMANCE AND WELLBEING	8031
N. Pedro, L. Sardinha, J. Piedade, E. Cruz, N. Agonács, A. Pedro, A.L. Rodrigues STUDENTS' CLUSTERING BASED ON THE LMS ACTIVITY	8041
D. Oreski, M. Gligora Markovic, N. Kadoic	
STATE MANAGEMENT ON DEVELOPING TEACHERS AT GENERAL SCHOOLS IN ACCORDANCE WITH THE NATIONAL EDUCATION SYSTEM FRAMEWORK: A CASE STUDY OF VIETNAM H. Tran Huy, P. Tran Cong, H. Ngo Thi	8048
DEVELOPING CAREER AND ENTREPRENEURSHIP EDUCATION IN ESTONIA M. Partei, L. Ariva	8058
EDUCATIONAL SCIENTIFIC TOURISM: A PROGRAM INCLUDING AN EXPERIMENTAL EDUCATIONAL DESIGN WITH TECHNOLOGICAL TOOLS IN PERU'S UPPER AMAZON CLOUD FOREST AND A PROPOSED ACADEMIC DEFINITION FROM A SYSTEMATIC REVIEW F. Trama, J. López, J. Macavilca, N. Guillen, M. Berto, F. Rizo Patrón	8065
MOBILE TECHNOLOGY FOR PROFESSIONAL DEVELOPMENT AND WELLBEING: THE REFLECTA PROJECT R. Rochon, J. Jackson, J. Knight	8074
SUSTAINABLE DEVELOPMENT ASSESSMENT METHODOLOGY FROM EDUCATION APPLIED TO ADDITIVE MANUFACTURING RESEARCH C. Fredriksson, M. Dwek	8079
INFN LNF PUBLIC OUTREACH PROGRAM: EXPERIENCES IN BRIDGING SCIENCE AND SOCIETY	8090
S. Bertelli, S. Arnone, D. Bifaretti, P. Di Nezza, D. Domenici, E. Patrignanelli, S. Reda, E. Santinelli ENHANCING PHYSICAL CHEMISTRY KNOWLEDGE AND SOFT SKILLS BY SHORT	8095
IN-CLASS ACTIVITIES J. Sanchez-Bodón, C. Martín, A. Benito, I. Rojo Bartolomé, L. Pérez-Álvarez, A.C. Lopes, J.L. Vilas Vilela, L. Ruiz-Rubio	6093
USING MATHEMATICS TO ENHANCE MUSIC EDUCATION THROUGH AUTOMATIC ALGORITHMIC TRANSFORMED MOTIF IDENTIFICATION V. Robila, S. Nita, J. Cho, B. Nita	8099
ADVANCED ANALYSIS OF SCHOLARLY BIG DATA USING BIBLIOMETRIC ANALYSIS AND ARTIFICIAL NEURAL NETWORK MODEL G. Elbiz Arslan, V.M. Yonder, G. Tayfur	8109
THE REPRESENTATION OF YOUNG WOMEN AND THE DYNAMICS OF GENDER VIOLENCE ON TIKTOK: STORIES AND EVIDENCE FOR EDUCATION E. Quiles-Fernández, B. Jarauta Borrasca, Z. Bozu	8118
IMPROVING CUSTOMER SERVICE IN SCHOOLS BASED ON LEAN AND SIMULATION: A CASE STUDY S.S. Cabrera-Paredes, M.L. Gonzales-Cotera, M.F. Ruiz-Ruiz, W. Yushimito	8122
CANSAT SPAIN SCHOOL PROJECT: A NATIONAL STUDENTS' CHALLENGE AND ITS TEACHER TRAINERS NETWORK E. Álvarez Castro, D. Escutia Muñoz, M.I. García Arenas	8131

N. Rodríguez-Henche, I.D. Román, L. Muñoz-Moreno, A. Herráez, J.C. Díez, L. Puebla, A.M. Bajo	8140
DEBATE AS A MOTIVATIONAL AND ACTIVE LEARNING TOOL FOR STUDENTS OF FOOD SCIENCE AND TECHNOLOGY AREA, IN HIGHER EDUCATION N. Betoret, I. Fita, C. Barrera	8147
ORGANIZING EDUCATIONAL ACTIVITIES OF CULTURAL VALUES FOR HIGH SCHOOL STUDENTS: A CASE STUDY OF VIETNAM IN THE CURRENT PERIOD H. Tran, P. Tran, H. Ngo Thi	8152
CONVERGENCE OF COLLABORATIVE APPLICATIONS IN THE CLOUD FOR THE MONITORING OF EVALUATION IN HYBRID TEACHING IN UNIVERSITY STUDENTS	8162
F. Leyva Picazzo, R. Córdoba Del Valle, J. Lau, A.M. González Márquez, J.A. Castro Zapata, D.M. Betancourt Trevedhan, C.A. Severino Parra, M. Rodríguez León	
LEARNING EXPERIENCES IN THE KENYAN PRIMARY SCHOOLS WITH THE LENS OF PARADIGM SHIFT TO THE COMPETENCE BASED CURRICULUM (CBC) Z. Ali, P. Kajoro, F. Mtenzi	8163
ENGAGING AND COLLABORATING WITH RETURNEE PUPILS IN SCIENCE LESSONS: TEACHERS' APPROACH R. Bilbokaitė, I. Bilbokaitė-Skiauterienė, M. Jovaišaitė	8169
DEVELOPING A SEQUENTIAL AND MULTI-LEVELED QUESTION BANK FOR SMALL CLASS TASKS A.P. Lopes, F. Soares, J. Azevedo, M. P. Nunes, V. Oliveira	8176
PERSONALIZING EVALUATIONS TO AID CHEMISTRY LEARNERS E. Oliveira, F. Izo, W. Silva	8183
INNOVATING PEDAGOGICAL PRACTICES IN HIGHER EDUCATION: THE IMPLEMENTATION OF AN ACTIVE AND AUTHENTIC LEARNING APPROACH IN TWO STUDY CYCLES I. Saur-Amaral, S. Filipe	8190
APPLICATION OF ACTIVE LEARNING TO THE TEACHING OF MANAGERIAL SUBJECTS J. Mesárošová, J. Samáková, A. Stareček	8200
ASSESSMENT OF ENGLISH AS A SECOND LANGUAGE STUDENTS AT KAZAN FEDERAL UNIVERSITY D.F. Khakimzyanova, E.S. Khovanskaya	8208
CHALLENGES AND BENEFITS OF TEACHING COMMUNITY INTERPRETING TO STUDENTS AT UNIVERSITY E. Smirnova, E. Mukhametshina, A. Ibraeva	8212
NURSING ESCAPE ROOM UAH: MOTIVATION TO LEARN IN THE BIOCHEMISTRY LABORATORY	8216
N. Rodríguez-Henche, I.D. Román, A. Herráez, J.C. Díez, J. Recio-Aldavero, L. Muñoz-Moreno, L. Puebla, A.M. Bajo	
PRESENTATION-PRACTICE-PRODUCTION APPROACH AS A MATTER OF EFFICACY IN TEACHING INTERPRETING AT UNIVERSITY E. Smirnova, E. Mukhametshina, A. Ibraeva	8224
EDUCATION AND DEVELOPMENT THROUGH E-GOVERNMENT SERVICES FOR CITIZENS M. Murariu (Pleşca)	8228
HIDDEN BLADES AND BLOCKS. ASSASSIN'S CREED AND MINECRAFT AND ITS EDUCATIONAL APPLICATIONS IN HISTORY OF ART R. Gregori	8233
HYBRID E-LEARNING APPROACH FOR CULTURE-SENSITIVE SOFT SKILLS TRAININGS IN VIRTUAL CLASSROOMS – CHALLENGES AND POTENTIALS K. Hamann, A. Rickert, S. Yang	8237
TOWARDS SUSTAINABILITY: IMMERSIVE METHODS FOR ENHANCING NATURE AWARENESS FOR YOUNG LEARNERS AND DEVELOPING THEIR ACTION COMPETENCIES L. Gjedde	8248
PROCEDURE FOR DESIGNING A PROCESS CARD FOR EDUCATIONAL ACTIVITIES IN THE FIELD OF MECHANICAL ENGINEERING A Pauliková H Hyahlik Chovanová H Makušová D Ranáš	8249

RETHINKING ASSESSMENT FOR A POST-COVID-19 EDUCATION DISPENSATION IN SOUTH AFRICA: CHALLENGES AND OPPORTUNITIES M. Makgamatha	8257
REAL PROJECT: REMOTE EDUCATION USING AN ACTIVITY MANAGEMENT SYSTEM FOR LEARNING PROJECT A.M. O'Brien, D. O'Hanlon, N. Harding	8258
MULTIMODAL INQUIRY: AN ALTERNATIVE APPROACH TO TEACHING DISCIPLINARY CONCEPTS IN HIGHER EDUCATION G. McDermott	8259
AUTOMOTIVE ENGINEERING PROGRAMS IN MEXICO: CHALLENGES AND EXPERIENCES M. Lopez-Parra, R. Torres, J.C. Sánchez-Villegas	8260
LOW-CODE AND NO-CODE APPROACH TO TEACHING ARTIFICIAL INTELLIGENCE S. Mladenovic, A. Granic, G. Zaharija, D. Krpan	8266
GENERATING DISCIPLINARY COMPETENCIES IN STUDENTS WITHOUT AN APPLICATION OF A KNOWLEDGE ASSESSMENT L.H. González Guerra, V.M. de la Cueva Hernández	8267
CAN TEACHERS AFFECT YOUTHS' EXTERNALIZING BEHAVIORS? SHORT-TIME ASSOCIATIONS BETWEEN PERSONALITY, TEACHERS' CHARACTERISTICS, AND PROBLEMATIC BEHAVIORS THROUGH SELF-REGULATORY SELF-EFFICACY IN ITALY	8272
A. Favini, F. Cirimele, C. Lunetti, F. Culcasi, E. Basili, C. Remondi, E. Thartori, G. Gliozzo	
DIGITAL GAME WORKSHOP ON FINANCIAL EDUCATION: IMPACT ON PLAYERS' AND GAME CREATORS' ENGAGEMENT AND LEARNING S. Assoreira, M. Aresta, P. Beça	8282
DEVELOPING TOOLS TO EVALUATE THE IMPACT OF OPEN SCHOOLING ON STUDENTS' SCIENCE LITERACY AND SUSTAINABILITY CONSCIOUSNESS M. Romero-Ariza, A. Quesada, A.M. Abril, M. Martín-Peciña	8287
INTENSIFYING KNOWLEDGE OF PROBLEM-SOLVING BY SUPPORTING BY SEMESTER CHALLENGE: CASE STUDY OF ANALYSIS AND DESIGN OF ALGORITHMS GROUPS L.H. González Guerra, R. Martínez Martínez	8294
APPLYING THE PRINCIPLES OF CONNECTIVISM IN TEACHING MS WORD TO UNIVERSITY STUDENTS H. Hafičová, V. Piskura	8298
COOPERATIVE TEACHING IN THE PREPARATION OF FUTURE TEACHERS AND THE POSSIBILITIES OF ITS APPLICATION IN THE CREATION OF AN INCLUSIVE ENVIRONMENT IN SCHOOLS H. Hafičová, T. Dubayová	8303
PERSPECTIVES FOR STEM TEACHERS: INSTRUMENTS, BASELINE STUDY AND SOME PRELIMINARY RESULTS IN THE SPANISH CONTEXT FROM A EUROPEAN PROJECT (3C4LIFE) A. Quesada, M. Romero-Ariza, A.M. Abril, M. Martín-Peciña	8308
ADOPTING DATA SCIENCE CURRICULA: A STUDENT CENTRIC EVALUATION S. Wang, V. Janeja, D. Harding, C. Von Vacano, D. Lobo	8309
TEACHERS' PERSPECTIVES TOWARDS EMBODIED LEARNING: A LITERATURE REVIEW C. Kairu	8316
GENDER, DIVERSITY AND ETHNICITY: RETHINKING THE EARLY EDUCATION LEARNING ENVIRONMENT C. Ribeiro, M.L. Azevedo, C. Mesquita, Z. Altat	8326
TEACHER COMPETENCE, ASSESSMENT AND INSTRUMENTS M.J. Rodrigues, C. Mesquita, C. Ribeiro, M.L. Azevedo	8333
EXPLORING INTERCULTURAL AND GLOBAL COMPETENCIES FOR EDUCATORS A. Bordeianu	8334
DIGITAL IMAGINATION LEADS TO DIGITAL INNOVATION <i>M. Fisher, C. Broadbent</i>	8335
BUILDING YOUR STUDENTS' CASA: CENTER FOR ACADEMIC SUCCESS AND ACHIEVEMENT A. Bordeianu, L. Hurjui, I. Hurjui	8340

ON THE SELF-REFLECTION OF BEGINNING UNIVERSITY STUDENTS ON THEIR OWN LEARNING PROCESS - A CASE STUDY REPORT E. Lakoma	8341
USING TASK-BASED LANGUAGE TEACHING APPROACH (TBLT) TO IMPROVE THE WRITING PROFICIENCY OF FIRST-YEAR MATURE UNIVERSITY STUDENTS S. Adjei-Mensah	8347
RETHINKING ASSESSMENT FOR THE ENGINEERING SOFTWARE COURSE WITH A SHIFT IN TEACHING PARADIGM S. Datta	8353
FACULTY AS ADVISORS, MENTORS AND COACHES - INTERNATIONAL STUDENTS AND FACULTY EXPERIENCES L. Hurjui, A. Bordeianu, I. Hurjui	8357
GLOBAL AND LOCAL: A PROJECT FOR THE EUROPEAN CITIES, IN MADRID GLOCAL SUMMER SCHOOL M.A. Flórez de la Colina, P.C. Izquierdo Gracia, D. Gawryluk, D. Jankauskiene, D.A. Krawczyk, E. Brezgyte	8358
INTERCULTURALITY AND INTERCULTURAL COMPETENCE IN INTERNATIONALIZATION OF HIGHER EDUCATION: A BRAZILIAN HIGHER EDUCATION INSTITUTIONS' PERSPECTIVE L.E. Zilberberg Oviedo	8366
PROBLEM BASED LEARNING (PBL) AND LEARNING BY DOING APPROACHES IN YOUNG ENGINEERS DESIGNS OF GLOCAL, ERASMUS+ STUDENTS TEAMS D. Gawryluk, M.A. Flórez de la Colina, D.A. Krawczyk, D. Jankauskienė, M.M. Valiente López	8367
THE INTEGRATION OF A PROBLEM-SOLVING BASED MEASURE OF TRANSFER IN A DIGITAL GAME-BASED LEARNING ENVIRONMENT J. Nietfeld, S. Syal, M. Lewis	8376
DESIGNING IMPACT EVALUATIONS FOR ACADEMIC AND INDUSTRY PARTNERSHIPS C. Paat, G. Lee-Thomas	8382
EDUCATIONAL RESEARCH EXPERIENCES BASED ON MATERIAL DESIGN FOR TRANSITION J. Alarcón Castro, J. Brañes Alarcón, J. Brañes Alarcón	8387
ENTREPRENEURSHIP INTENTION OF MBA STUDENTS INVOLVED IN ENTREPRENEURSHIP PROCESSES IN GUATEMALA E.J. Morales-Fernandez, E.M. Zaczkowska, J.L. Trechera-Herreros, M. Pérez de Chen, P.V. Soto Arrivillaga	8393
"I FEEL MUCH MORE CONFIDENT IN APPROACHING GENETICS IN MY WORKPLACE": A SHORT COURSE IN PRACTICAL MEDICAL GENOMICS D. Abeygunawardena, E. Oates, E. Palmer, B. Terrill	8406
AN APPROACH TO THE ENTREPRENEURIAL PROFILE OF UNIVERSITY STUDENTS INVOLVED IN ENTREPRENEURSHIP PROCESSES IN GUATEMALA E.J. Morales-Fernandez, E.M. Zaczkowska, J.L. Trechera-Herreros, M. Pérez de Chen, P.V. Soto Arrivillaga	8407
GAME DEVELOPMENT TOOLS FOR PERSONAL EXPRESSIVE DIGITAL ART G. Marlow	8418
UNIVERSITY/INDUSTRY EXPERIENCES: TEACHING MATERIALS DESIGN BASED ON COLLABORATIVE PROJECTS WITH COMPANIES J. Alarcón Castro, J. Brañes Alarcón, J. Brañes Alarcón	8426
A FACULTY PERSPECTIVE: IS BICHRONOUS OR MULTIMODAL THE PREFERRED DELIVERY METHOD IN DISTANCE EDUCATION? R. Best	8432
DESIGN OF AN INTRODUCTORY UNIVERSITY PHYSICS COURSE IN THE LIGHT OF NEW NEUROSCIENCE KNOWLEDGE L. Bartosovic, P. Demkanin, S. Novotna	8433
POSSIBILITIES OF IMPROVEMENT OF INNOVATION PERFORMANCE OF SLOVAKIA M. Zajko	8440
LEADERSHIP IN VIRTUAL ORGANISATIONS: A CASE FOR SUSTAINABILITY? M. Leiss	8452
PC-LINK: A WEB APPLICATION FOR THE ASSESSMENT OF STUDENTS AND COURSES FOR ACCREDITATION IN ENGINEERING EDUCATION T. Ustunkok, D. Topalli, G.G.M. Dalveren, G. Tirkes, A. Yazici	8453

DESIGN OF SUSTAINABLE DEVELOPMENT GOALS (SDG) BASED CHALLENGES AS DRIVING FORCES FOR INTERDISCIPLINARY UNDERGRADUATE AND MASTER THESES I. Moreno-Benitez, V. Palomares, G. Urgoitia, J.A. Carrero, A. Gredilla, M. Insausti, I. Gil de Muro, L. Ruiz-Rubio	8454
CHALLENGE BASED LEARNING THROUGH NEW PRODUCT DESIGN AND DEVELOPMENT METHODS	8458
S. Gonzalez-Garcia, L.P. Lopez-Vazquez, R. Belmonte-Izquierdo, R. Rodriguez-Calderon, D. Barriga-Flores, S.E. Garcia-Hernandez	
EXPLORATION AND APPLICATION OF LEXICAL CHUNK THEORY IN RUSSIAN TEACHING IN CHINA IN THE CONTEXT OF EDUCATIONAL DIGITALIZATION L. Zhuo	8465
INTRODUCING 3D MODELING AS A COMMON TOOL IN THE CLASSROOM C. Carbonell Urtubia, Á.A. Magreñán Ruiz, L. Orcos Palma	8470
TRAINING PRONUNCIATION OF ENGLISH ACADEMIC VOCABULARY H. Vancova	8479
FLORIDA'S HOUSE BILL 7 (STOP WOKE BILL): A PRELIMINARY REVIEW OF THE LAW ON CULTURALLY RESPONSIVE THIRD GRADE SOCIAL STUDIES AND SCIENCE TEXTBOOKS R. Chant, B. Zoellner	8480
HOW DO MATHEMATICS TEACHERS IN PUERTO RICO PERCEIVE THE MATHEMATICS COMPETITIONS? F. Henao, L. Caceres	8481
CONCEPTUAL WEAKNESSES FOUND IN NEW STUDENTS OF PRECALCULUS I AT THE UNIVERSITY OF PUERTO RICO, MAYAGUEZ CAMPUS J. Ortega, L. Caceres	8482
SOFT SKILLS IN MATH - NON-FORMAL LEARNING CONTEXTS A. Breda, C. Cruz	8483
STUDENT RETENTION USING ADVANCED LEARNING VALIDATION SOFTWARE TOOL AND EDUCATIONAL DATA MINING: A CASE STUDY A. Mutka, F. Zivkovic, M. Breka, M. Zagar	8492
DEVELOPMENT OF LEARNING ASSISTANCE ENVIRONMENT WITH MULTI EDGE DEVICES FOR THE ERA OF COMPLEX MASSIVE NATURAL DISASTERS S. Togawa, A. Kondo, K. Kanenishi	8497
GENDER IN THE CONTEXT OF RESIDENTIAL CARE: PERSPECTIVES, EXPERIENCES AND IMPLICATIONS FOR THE TRAINING OF PROFESSIONALS S. Mateus, D. Santa-Marta, S. Saleiro, T. Seabra	8503
CHANGE IN INTEREST IN AND EFFECT ON THE COMMUNITY THROUGH DISCUSSIONS ON URBAN PLANNING A. Kondo, S. Togawa	8504
ENTREPRENEURS ON A MISSION: HOW TO LEARN SOCIAL ENTREPRENEURSHIP IN PRACTICE C. Alves, M. Ferreira Dias, M. Amorim, C. Silva, A. Dias, J. Alvarelhão	8513
LEARNING SCENARIOS: DEFINITION, EVOLUTION, AND RESEARCH B. Carvalho, M. Amorim, M. Ferreira Dias, R. Castro Madureira, M. Rodrigues	8518
ASSESSING THE QUALITY OF SCHOOL PERFORMANCE: THE CONTEXT OF TEAM MOTIVATION AND COMMUNICATION R. Bilbokaitė, I. Bilbokaitė-Skiauterienė, G. Petrauskienė	8524
OPPORTUNITIES FOR ETHICAL DECISION MAKING: A CASE STUDY IN K-NN A. Goldstein, M. Alodadi, V. Janeja	8525
SUSTAINABLE DEVELOPMENT GOALS AND DIGITAL COMPETENCE: CONNECTING TWO KEY ELEMENTS OF EDUCATION J.C. Casañ-Núñez, C. Millán Scheiding	8532
CENTERING RACIALIZED GIRLS' (MEDIA-MAKING) STORIES: A FEMINIST CASE- STUDY OF AN EXTRACURRICULAR, VIRTUAL VIDEO STORYTELLING PROGRAM T. Terzopoulos	8533
PROJECTS, PROBLEMS OR CHALLENGES? ACTIVE METHODS AS THE CORE OF PRE- SERVICE TEACHER EDUCATION A. Cerveró-Carrascosa, A. Rubio-Peñarrubia, A.C. Llorens-Tatay, M.L. Martínez-Romero	8534
TOWARDS A VIRTUAL SPORTS TECHNOLOGY LABORATORY: CASE VUOKATTI M. Jäntti	8540

CHALLENGE BASED WORKSHOP ON SPACEFLIGHT DYNAMICS FOR SOPHOMORE STUDENTS	8548
E.M. Hernández-Cooper, R.D. Santiago-Acosta, J. Otero-Hernández, R. Gómez-Castillo GOOD STORIES GO A LONG WAY: INSIGHTS INTO THE ACQUISITION OF	8555
FOREIGN LANGUAGES SPECIALIZED VOCABULARY A.M. Toma	8333
EXPERIENCES IN A DYNAMIC SYSTEMS MODELING COURSE WITH SEMI-ADAPTIVE LEARNING	8560
R.D. Santiago-Acosta, E.M. Hernández-Cooper, R. Gómez Castillo, J.C. Del Águila Rodríguez	
LEADERSHIP AND EDUCATIONAL POLICIES M. Araujo	8566
EXPRESSION OF SOCIAL RESPONSIBILITY FEATURES IN THE HIGHER EDUCATION INSTITUTION I. Kepaliene, B. Zygaitiene, A. Guoba	8575
COHERENCES OF BODY MOVEMENT AND ACQUISITION OF FOREIGN LANGUAGE S. Jenko Miholic, V. Horvat, R. Kovaček	8584
CHANGES IN SOME MOTOR SKILLS IN PRESCHOOL CHILDREN V. Horvat, S. Jenko Miholic, I. Bokor	8593
A COMPUTED BASED LOW STAKE QUIZ (LSQ) RESULTS FROM REAL EXPERIMENT IN AN EDUCATIONAL CONTEXT R. Castro, D. Soares	8600
SMART ELECTRICAL NETWORKS AND SYSTEMS LABORATORY BASED ON IOT PLATFORM S. Skok, J. Srpak	8607
THE REGIONAL IMPACTS OF FOREIGN STUDENTS: A CASE STUDY J. Fernandes, S. Esteves	8612
UTILIZATION OF INTERNET-BASED ONE-ON-ONE ENGLISH PLATFORMS FOR THE EXCHANGE OF PERSPECTIVES AND IDEAS IN STEM - AN EXPERIENCE A. Harford	8620
FEATURES OF COMMUNICATION CULTURE IN THE PROCESS OF TEACHING ENGLISH AS A FOREIGN LANGUAGE IN TECHNICAL UNIVERSITY A. Boltaeva, I. Suvorova	8624
IMPACT OF PRIMARY SCHOOL TEACHERS' DEMOGRAPHICS ON THEIR PSYCHOSOCIAL WORK HAZARDS: A CROSS-SECTIONAL SURVEY OF NIGERIAN TEACHERS C. Okeke, C. Ugwuanyi	8631
WHICH WORD DESCRIBES IT? AN ACTION RESEARCH ON BOOSTING LEXIS IN ONLINE SCHOOL STUDENTS K. Rodriguez-Robles, K. Yambay de Armijos	8639
THE MEDIATING ROLE OF PROACTIVE PERSONALITY IN THE RELATIONSHIP BETWEEN COGNITIVE FLEXIBILITY AND CAREER FUTURE IN UNIVERSITY STUDENTS G. Sart, F.H. Sezgin	8647
DEVELOPING TRANSFERABLE SKILLS IN ENGLISH AS A SECOND LANGUAGE CLASSES AT KAZAN FEDERAL UNIVERSITY D.F. Khakimzyanova, E.S. Khovanskaya	8655
RADICALIZED DISCOURSE IN THE EDUCATIONAL ENVIRONMENT: STRUCTURE AND FEATURES E. Palekha	8660
A DIFFERENT WAY FORWARD: A NEW PERSPECTIVE ON LEADERSHIP, A SAMARITAN LEADER M. Suciu, A.M. Bocaneala	8667
IDIOMS AND IDIOMATIC PARONYMS IN EFL: COMMON LEARNING CHALLENGES O. Rotko	8672
CAREER TRAINING OF SOCIAL EDUCATORS IN PREVENTION AND INTERVENTION OF SOCIAL THREATS AMONG YOUNG PEOPLE IN SLOVAKIA K. Liberčanová, A. Baranovská	8673
THE ART OF DESIGNING AN INFORMATICS COURSE: HOW TO CREATE THE PERFECT LEARNING SPACE FOR STUDENTS? M. Jancheski. S. Jancheska	8683

BREAKING DOWN GEOGEBRA: TWO DIMENSIONS OF THE GEOGEBRA SOFTWARE APPLICATION M. Jancheski, S. Jancheska	8684
HOMEWORK, TELEWORK AND THEIR MANAGERIAL CONTROL, CHALLENGES FOR MANAGERS IN THE PUBLIC ADMINISTRATION IN ROMANIA M. Murariu (Pleșca)	8685
ACQUISITION OF BUSINESS TAXATION COMPETENCES THROUGH PROBLEM-BASED LEARNING P.J. Cardenas-Garcia, A. Alcalá-Ordoñez	8692
MULTIPERSPECTIVITY AS A SUPPORT FOR THE DEVELOPMENT OF STUDENT CREATIVE AND CRITICAL THINKING COMPETENCES – A CASE STUDY C. Alexandrache	8696
THE CONSEQUENCES OF THE FEMINIZATION OF EDUCATION IN SLOVAKIA S. Dončevová	8704
A JOURNAL FOR MASTER STUDENTS: THE EXPERIENCE OF ADVANCES IN EARTH SCIENCE L. Gimeno-Sotelo, L. Gimeno, R. Nieto, M. Vazquez, R. Sori, M. Stojanovic	8711
INNOVATIVE STRATEGIES TO IMPROVE THE ACTUAL STUDY-RESEARCH TRAJECTORY OF UNIVERSITY STUDENTS A. Vagaská, P. Račková, M. Hubáček	8712
COVID-19 IMPACT ON THE QUALITY OF INTERNSHIP PROGRAM IN ENVIRONMENTAL ENGINEERING STUDIES IN CROATIA – FOUR YEAR ANALYSIS S. Tišma, S. Kalambura, R. Biondić, S. Kovač, H. Meaški, D. Dogančić, L. Nađ, A. Farkaš, I. Tolić	8722
PARTICIPATORY ACTION INTERVENTION RESEARCH (PAIR) IN SUPPORT OF SCHOOL/COMMUNITY-BASED COPING AND RESILIENCE R. Ferreira	8731
COGNITIVE STRATEGIES AND PSYCHO-SOCIAL SKILLS THAT SUPPORTED TEACHER RESILIENCE DURING THE COVID-19 PANDEMIC R. Ferreira, E. Williams, S. Dippenaar	8732
APPLICATIONS OF LEARNING ANALYTICS TO STUDENT ENGAGEMENT DATA: A SYSTEMATIC LITERATURE REVIEW O. Oladipupo, S. Samuel, C. Uzor, O. Ikoh	8733
THE ROLE OF SELF-ADVOCACY TRAINING IN THE ACCESS AND INCLUSION OF STUDENTS WITH DISABILITIES M. Nikolaraizi, M. Papazafiri, C. Kasapi, C. Kofidou, V. Argyropoulos	8743
BUILDING COMPREHENSION FOR ENGLISH LEARNERS A. Gupta	8749
UNLOCK - CREATIVITY THROUGH GAME-BASED LEARNING AT HIGHER EDUCATION M. Vėžienė, A. Daubarienė	8753
LIVE NOTEBOOKS AND INTERACTIVE QUANTITATIVE TOOLS FOR INTERPRETATION OF RELEVANT AUTONOMIC METRICS UNDER KNOWN CARDIOVASCULAR TESTS IN THE EP-LAB C.J. Calvo, M. Zarzoso, C. Roma, V. Victor, L. Such	8760
BLENDED AND UBIQUITOUS LEARNING OF BIOPHYSICS OF THE HUMAN ACOUSTIC FIELDS: MATCHING AVERAGE STANDARDS WITH SELF-DETERMINATION OF THRESHOLDS AND EQUAL-LOUDNESS CONTOURS C.J. Calvo, V. Victor, M. Zarzoso, C. Romà, A. Lloret	8761
DIGITAL TRANSFORMATION AND SUSTAINABLE DEVELOPMENT OF EDUCATIONAL TECHNOLOGIES (ON THE EXAMPLE OF KAZAKHSTAN' STAGE DESIGN) M. Zhanguzhinova, I. Lunga, K. Khalykov, S. Karzhaubaeva, R. Ashinov, T. Kashaganova, M. Kulseitova, A. Iskakova	8762
INFORMATION AND MATERIAL SUPPORT TO ENVIRONMENTAL EDUCATION IN SLOVAKIA IN THE TIMES OF CRISIS A. Bilčík, J. Bilčíková, S. Barnová, B. Mačová	8763
DIGITAL STUDENT COMMUNITY: THIRD SECTOR, UNIVERSITY AND GENDER A. Bohigues, M. Iranzo-Cabrera	8764
RESEARCH FOR EDUCATION V. Stoffond	8765

INTERACTIVE BEHAVIOR OF URBAN AND RURAL TEACHERS' NETWORK COLLABORATIVE TEACHING AND RESEARCH COMMUNITY: CONNOTATION, MODE AND PROSPECT Z. Zhang, M. Fulong	8766
GOOD PRACTICES APPLIED IN E-TUTORING FOR UNIVERSITY TUTORS F. Leyva Picazzo, R. Córdoba Del Valle, D. Vázquez Trujillo, A.M. González Márquez, J.A. Castro Zapata, D.M. Betancourt Trevedhan, C.A. Severino Parra, J. Rodríguez Bolaños	8767
LESSONS LEARNED WITH THE STUDENTS' OF THE ACCOUNTING DEGREE IN LEARNING COVID19 CONTEXT R. Bertuzi, C. Pereira, A. Monteiro, R. Soares	8768
COMPLEMENTARY TRAINING FOR ENGINEERING STUDENTS IN ADDITIVE MANUFACTURING (3D PRINTING) I. Del Sol, M. Ramirez-Peña, R. Bienvenido-Barcena, J.M. Vazquez-Martinez, J. Salguero, M. Batista	8776
ASSESSMENT OF MANUFACTURING ENGINEERING SUBJECTS USING REAL INDUSTRIAL PROBLEMS 1. Del Sol, M. Ramirez-Peña, J.M. Vazquez-Martinez, J. Salguero, M. Batista	8785
ARE INFORMATICS TEACHERS PEDAGOGICAL INNOVATORS? PRELIMINARY RESULTS FROM A CASE STUDY P. Costa, M. Lucas	8795
IT'S CHRISTMAS TIME, LET'S SHARE! - A PROPOSAL FOR TEACHING AND LEARNING FRACTIONS, DECIMALS AND PERCENTAGES S. Ricardo, H. Campos	8796
BALL IN THE WATER, WHO GETS THERE FIRST? A PROPOSAL FOR LEARNING MATHEMATICS H. Campos, S. Ricardo	8801
TEACHERS PROFESSIONAL ETHICS: THE ROLE OF THE NARRATIVE AND REFLECTIVE CAPABILITIES ON THE DIFFERENT STAGES OF PROFESSIONAL DEVELOPMENT E. Seghedin	8805
BETWEEN PAST AND PRESENT: PERCEPTIONS ON THE ROMANIAN COMMUNIST EDUCATIONAL SYSTEM – IMPLICATIONS FOR OUR DAYS EDUCATION S. Nitu, E. Seghedin	8806
ENHANCING SCIENTISTS' PUBLIC OUTREACH ACTIVITIES: THE SCICOMM4ALL PROJECT	8807
S. Ambrósio, H. Dufour, F. Bilak, M. Varga, L. Martinelli, R. Ponce, R. Branquinho, M. Ferreira SCIENCE COMMUNICATION IN EDUCATION: A FIRST OVERVIEW ON TRAINING EVALUATION S. Ambrósio, S. Santos, R. Torres	8808
EDUCATION IN A MULTICULTURAL SOCIETY: THE USE OF THE LEARNERS' MOTHER TONGUE IN THE ZIMBABWEAN CLASSROOM P. Bhebhe	8818
CHANGEMAKERS: EMERGING EXPERIENCE FOR YOUTH M. Potes Barbas, A. Teles Vieira, P. Duarte Branco	8825
ADJUSTMENT TO GOOD STUDY HABITS, MEMORY STRATEGY AND EVALUATION OF TEACHER STUDENT OUTCOME D. Idika, E. Orji	8835
EXPERIENCES IN THE CLASSROOM T. Velasquez Perez, H. Castro, Y. Mendoza	8836
PRE-TEST APPLICATION OF THE QUANTITATIVE INSTRUMENT POSITIVE DEVELOPMENT OF YOUNG PEOPLE IN THE DEPARTMENT OF NORTE DE SANTANDER T. Velasquez Perez, N. Gaona, J. Gonzalez	8842
ASSESSMENT OF ENTREPRENEURSHIP EDUCATION BY TECHNICAL VOCATIONAL EDUCATION AND TRAINING COLLEGE LECTURERS': THE VALUE OF FEEDBACK TO THE STUDENTS M.S. Motsoeneng	8848
A FRAMEWORK TO ENHANCING PROBLEM-SOLVING SKILLS OF ENTREPRENEURSHIP EDUCATION OF TECHNICAL VOCATIONAL EDUCATION AND TRAINING COLLEGE LECTURERS M.S. Motsoeneng	8849

WORKING REMOTELY FROM NY TO KIEV - HIGH IMPACT APPLICATION OF "UNFRAMING" - IN RESPONSE TO HEIDEGGER'S CONCEPT OF "FRAMING" (GESTELL) D. Koeddermann	8850
INVESTIGATING STUDENTS' MOTIVATION OF PLAYING VIDEO GAMES IN CLASS AND ITS IMPACT ON THEIR ACADEMIC PERFORMANCE: A CASE STUDY OF THE UNIVERSITY OF LIMPOPO MEDIA STUDIES STUDENTS R. Rangata, C. Lesame	8854
THE IMPACT OF PRACTICUM COURSES IN SOCIAL EDUCATION ON PRIMARY STUDENT TEACHER'S TEACHING PRACTICES: QUALITATIVE STUDY S.M. Al Karasneh, B.A. Alakashee, A.A. Al-Barakat	8862
THE INTERFERENCE OF NON-STANDARD VARIETIES OF ISIZULU IN ISIZULU LANGUAGE LEARNING ON STUDENTS' PERFORMANCE AT A UNIVERSITY OF TECHNOLOGY IN GAUTENG 7.S. Gunede	8863