Table of Contents

ANXIETY DISORDER IN STUDENTS WITH DYSCALCULIA M.I. Garcia-Planas, M.V. García-Camba Vives	1
KEY COMPETENCES OF A SECONDARY VOCATIONAL SCHOOL GRADUATE I. Szőköl, B. Pupala, O. Kováč	5
DIGITAL LITERACY AND ARTIFICIAL INTELLIGENCE – DOES CHAT GPT INTRODUCE THE END OF CRITICAL THINKING IN HIGHER EDUCATION? N. Weimann-Sandig	16
CELEBRATING DIVERSITY AND CREATING COMMUNITY: GRAPHIC DESIGN WEEK L. Frear	22
PERCEIVED DISCRIMINATION IN MIGRANT SCHOOLCHILDREN IN NORTHERN CHILE	23
A. Caqueo-Urízar, J. Flores, M. Irarrázaval, N. Loo, J. Páez, G. Sepúlveda	
INTEGRATING BLENDED LEARNING IN A LAW CURRICULUM S. Menis	24
EMPOWERING STUDENT INNOVATION FOR CONTINUOUS IMPROVEMENT AT TRANSILVANIA UNIVERSITY OF BRASOV D. Munteanu, A. Nechifor	29
TEACHERS' PERSPECTIVES REGARDING THE UTILIZATION OF MULTIMEDIA DEVICES IN TEACHING AND LEARNING OF ECONOMICS IN NIGERIAN SECONDARY SCHOOLS J. Ejimonye, C. Ugwuanyi	39
EXTENT OF ACCESS TO AND UTILIZATION OF INFORMATION AND COMMUNICATION TECHNOLOGY FACILITIES IN TEACHING AND LEARNING OF ECONOMICS IN SECONDARY SCHOOLS IN NIGERIA J. Ejimonye, C. Ugwuanyi	46
THE DIGITAL DIVIDE: TEACHING BEYOND THE SCREEN M. Sanesi	52
ANALYSIS OF PAST AND PRESENT STUDENT'S PERCEPTIONS WHO RECEIVED POSITIVE INTELLIGENCE TRAINING VIA MECH 500 RESEARCH METHOD AND TECHNICAL COMMUNICATION COURSE FROM 2018-2022 AT THE UNIVERSITY OF THE DISTRICT OF COLUMBIA P. Tyagi, O. Wilson	59
HOW HAVING KNOWLEDGE OF POSITIVE INTELLIGENCE CAN HELP STUDENTS REACH THEIR FULL POTENTIAL: A STUDENT - ATHLETE PERSPECTIVE AT THE UNIVERSITY OF THE DISTRICT OF COLUMBIA P. Tyagi, J. Alberti-Medrano	65
VIRTUAL WELLBEING CAFE - INNOVATIVE PRACTICE SUPPORTING STUDENT WELL BEING DURING THE PANDEMIC AND BEYOND A. Khan, R. Gurbutt	66
EXPERIENCE IN TEACHING PHD STUDENTS HOW TO DO RESEARCH F. Milano	71
"THIS WAS AN ADVENTURE!" – DEVELOPING INTERCULTURAL COMPETENCE WITH FOREIGN LANGUAGE LEARNERS AT THE UNIVERSITY THROUGH COLLABORATIVE PROJECT WORK A. Fidalgo das Neves	80
USING AUDIO DIARIES TO REFLECT ON EMERGING SUBJECT KNOWLEDGE P. Atherton	89
EDPUZZLE: ONLINE VIDEO FOR LEARNING - QUESTIONING AND ONLINE ASSESSMENT P. Atherton	90
VARIATION OF STUDENTS' APPROACH TO LEARNING IN TWO DIFFERENT SUBJECTS IN THE SAME YEAR M. Leiva-Brondo, N. Lajara-Camilleri	91
OUTCOMES FROM AN EXPERIENCE OF GAMIFICATION IN HIGHER EDUCATION N. Lajara-Camilleri, M. Leiva-Brondo, E. Meliá-Martí	98
DIAGNOSTIC MODEL FOR EVALUATING KEY COMPETENCIES - A FOCUS ON MATHEMATICS AND MEDICINE WITH AN EMPHASIS ON "SIMILARITIES" G. Nikolova. D. Vankova	103

USING EDUCATIONAL NETWORKS TO PROMOTE INTERNATIONALIZATION EXPERIENCES IN PHYSIOTHERAPY EDUCATION	109
A. Alves Lopes, A. Prado, A. Pereira, C. Leão, E. Martins, F. Valente, F. Mazzoli-Rocha, G. Pacheco, J. Luís Sousa, M. Pedro, S. Gagulic	
AWARDING GAPS AND ASSESSMENT METHODS: AN ANALYSIS OF QUEEN MARY UNIVERSITY OF LONDON O. Popoola, D. Tavasci, L. Ventimiglia	115
EDUCATIONAL INNOVATION EXPERIENCE WITH ARCHITECTURE DEGREE STUDENTS, THROUGH A WORK BASED ON PARTICIPATION IN AN INTERNATIONAL CONTEST M.D. Palacios Diaz	124
PREDICT: JOBS OF THE FUTURE WITH AI 4 VET INCLUSION M. Potes Barbas, A. Teles Vieira, P. Duarte Branco	128
EDUCATIONAL MATRIX FOR ATTAINING PROFESSIONAL AND KEY COMPETENCIES IN THE FIELD OF INTEGRATIVE MEDICINE D. Vankova	134
DISTANCE LEARNING: JOB SATISFACTION AND WELL-BEING OF HIGH SCHOOL TEACHERS N. Grigutyte, G.S. Kremensaite	141
PRACTITIONERS' PERSPECTIVES ON THE CHALLENGES ENCOUNTERED IN MAINTAINING MOBILE EARLY CHILDHOOD CARE AND EDUCATION CENTRES C. Ugwuanyi, C. Okeke, C. Okeke	142
PERSPECTIVES OF EARLY CHILDHOOD EDUCATORS REGARDING PARENTAL INVOLVEMENT IN MOBILE EARLY CHILDHOOD CARE AND EDUCATION ACTIVITIES	147
C. Okeke, C. Okeke, C. Ugwuanyi	
IMPROVING ON DESIGN THINKING TO HELP SOLVE ENVIRONMENTAL PROBLEMS M. Léger, D. Pruneau, A. Khattabi, A. Laroche, V. Freiman, L. Dionne, N. Louis, V. Richard	153
THE TRIP AS AN EXTENSION OF THE LEARNING OF ARCHITECTURE M.D. Palacios Diaz	154
ENHANCING THE ACCEPTANCE OF TECHNOLOGY INTEGRATION USING INTERACTIVE VIDEOS IN HIGHER EDUCATION J. West, E. Swanepoel	155
LEARNING ELECTROSTATIC THROUGH HANDS-ON LABORATORY EXPERIMENTS: CONCEPTUAL CONFLICT APPROACH A. Métioui	156
SCIENCE GRADUATE STUDENTS' ATTITUDES ON SCIENCE CONCEPTUAL DEVELOPMENT THROUGH HISTORY A. Métioui	163
SURVEYING AND INVESTIGATION OF REMOTE LABORATORY CONCEPTS, TECHNOLOGIES, AND PLATFORMS FOR STEM PROGRAMS F. Yildiz, U. Dakeev, R. Pecen	170
INTEGRATING IMMERSIVE TECHNOLOGIES INTO CLINICAL SCIENCES CURRICULUM TO IMPROVE LEARNING AND THERAPEUTIC OUTCOMES R. Kalunga, F. Elshobokshy	171
21ST CENTURY SKILLS AND PARENTAL EXPECTATIONS IN LATVIAN PRIMARY SCHOOLS I. Barone	175
GENUINE READABILITY LEVEL OF ALLEGED ENGLISH CEFR B2 WRITTEN TEXTS AIMED FOR SECOND LANGUAGE LEARNING S. Rubesova	182
DESIGNING A FOREIGN LANGUAGE COURSE IN THE LEARNING MANAGEMENT SYSTEM MOODLE N. Antonenko	189
ONLINE TESTS WITH R/EXAMS: A FUNDAMENTAL TOOL FOR STEM (SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS) TEACHERS M.C. Miranda, A. Zeileis	196
EDUCATION, LANGUAGE AND INTERNATIONALISATION: AN ONLINE COMMUNITY OF PRACTICE N. Galloway	202

"MYTHS AND LEGENDS" ABOUT AUTISM SPECTRUM DISORDER M. de-la-Iglesia, J.S. Olivar	203
EASY-TO-LEARN CARD GAME TO TEACH PROCESSES OF ENVIRONMENTAL TECHNOLOGY, INCLUDING SOIL FLUSHING/WASHING, REMOVAL OF PARTICLES, AND SELECTIVE CATALYTIC REDUCTION R.J. Aguado, Q. Tarrés, J.L. Sánchez-Salvador, G.A. Bastida, M. Delgado-Aguilar	209
GAMIFICATION IN EDUCATION: THE CASE STUDY OF THE USE OF IDEACHEF AS A LEARNING STRATEGY IN THE HOSPITALITY MASTER'S DEGREE A.E. Sousa, S. Pais, A.S. Viana	215
DISRUPTING STEM EDUCATION: THE GAME-CHANGING IMPACT OF CHATGPT AND CHATGPT CODEX K. Quibeldey-Cirkel	220
WOMEN WITH AUTISM SPECTRUM DISORDER AND REFERENTIAL COMMUNICATION: A CASE STUDY-BASED APPROACH M. de-la-Iglesia, J.S. Olivar	229
DEVELOPING INTERACTIVE LANGUAGE AND GRAMMAR LESSONS USING STREAM, MS FORMS, SWAY AND PODCASTS P. Koayess, J. Althawahrih, M. Massara	236
EMPOWERING TEACHERS, STUDENTS AND RURAL SCHOOLS IN LEARNING STEM DISCIPLINES THROUGH THE USE OF REMOTE LABS: THE R3 PROJECT EXPERIENCE U. Hernandez Jayo, J. Garcia Zubia, V. Canivell	237
CONSTITUTING COMMUNITY: A HEURISTIC EXAMINATION OF TOOLS AND OPPORTUNITIES FOR DEEPENING CONNECTIVITY AND ENGAGEMENT FOR ASYNCHRONOUS DOCTORAL STUDENTS S. Melideo	245
SUPPLEMENTARY VR TOOL FOR STUDENT ENGAGEMENT U. Dakeev, F. Yildiz, R. Pecen	246
FAMILY ENVIRONMENTS AND ANDRAGOGICAL STRATEGIES FOR ENHANCING MEANINGFUL LEARNING IN UNIVERSITY STUDENTS T. Paredes, A. Espín, S. Torres, V. Valencia	247
ART MUSEUMS DISTANT ACTIVITIES IN THE COVID-19 TIME E. Polyudova	253
CHATBOTS ON MS TEAMS: A REVIEW OF THEIR CREATION AND USE IN A TERTIARY EDUCATION SETTING A. Forrester	254
ATTITUDES TO TECHNOLOGIES IN HEALTHCARE TRAINING BEFORE AND AFTER THE PANDEMIC AT MEDICAL UNIVERSITY – PLOVDIV, BULGARIA A. Kirkova-Bogdanova, D. Taneva, M. Vakrilova Becheva	255
'GETTING THE BALANCE RIGHT': RECONCEPTUALISING EFFECTIVE ONLINE WORK-INTEGRATED LEARNING C. Winberg	259
TOWARDS A NEW NORMAL: THE EVOLUTION OF AN UNDERGRADUATE ENGINEERING COURSE S. Winberg	266
ANALYZING LEARNING EFFECTIVENESS AND SENSE OF FLOW FROM A VIRTUAL EDUCATIONAL ESCAPE ROOM IN BIOMIMCRY V. Yeflach-Wishkerman	273
VALUE ADDED? – ANALYSING PRE-SERVICE LANGUAGES TEACHERS' APPLICATION OF PEDAGOGICAL FRAMEWORKS TO THEIR DESIGNS OF E- RESOURCES FOR LANGUAGES CLASSROOMS L. Morgan	274
GAME-BASED PEDAGOGICAL APPROACH TO IMPROVE LEARNING IN MATHEMATICS A. Lertxundi-Artetxe, P. Sarriugarte-Onandia, A. Picallo-Perez	279
NEW YORK CITY AND PARIS COLLEGE STUDENTS PARTNER TO SOLVE PROBLEMS OF SUSTAINABILITY COLLABORATIVELY THROUGH A GLOBAL ONLINE LEARNING EXCHANGE PROGRAM M. Dono-Koulouris	280
THE PROBLEMS AND EXPECTATIONS OF THE STUDENTS GETTING INFORMAL RELIGIOUS EDUCATION FOR THE HEARING AND VISUALLY IMPAIRED PEOPLE (CASE OF ISTANBUL) B. Gürer, E. Kaya	289

SUSTAINABILITY OF INDEPENDENT CAMPUS POLICY IN INDONESIA: IS HIGHER EDUCATION MORE EFFICIENT AND EFFECTIVE? F.V. Arie, A. Nagy	293
CREATING A SENSE OF BELONGING THROUGH A COMMUNITY OF PRACTICE	301
L. Ludwig DECISION-MAKING PROCESS OF SECONDARY VOCATIONAL SCHOOL GRADUATES WHEN CHOOSING COLLEGE C. Serafin	302
THE CHEAT-PROOF CALCULUS TEST L. Ludwig	312
THE EFFECT OF SEX ON EMERGENCE OF WRITTEN LANGUAGE IN PRESCHOOL CHILDREN EXPOSED TO TWO LEARNING MODELS K. Marinova, C. Dumais, A. Niyubahwe, R. Nolin	313
THE VALUE OF HIGHER EDUCATION PERCEIVED BY EMPLOYERS: LATVIAN SURVEY RESULTS I. Mietule, M. Lescevica, S. Lemsa, Z. Gusta, V. Melbarde, I. Kotane	319
TEACHING ENGLISH BY GAMES FOR INCLUSIVE LEARNERS N. Dvalidze	325
THE IMPACT OF GLOBALIZATION ON THE GREEK EDUCATIONAL SYSTEM K. Papaioannou	331
THE SPANISH EDUCATIONAL SYSTEM AND THE TEACHING OF HISTORY. THE IMPACT OF HISTORY COURSE ON THE CONFIGURATION OF NATIONAL IDENTITY K. Papaioannou	336
LESSON PLANNING BASED ON FINDINGS FROM THE PSYCHOLOGY OF LEARNING B. Greimel-Fuhrmann, R. Fortmüller	340
EXPERIENCE SHARING OF USING INQUIRY BASED LEARNING TO TEACH A STATISTICS COURSE TO SENIOR MECHANICAL ENGINEERING STUDENTS A.S. Mohammed	346
CONCEPTUALISING THE RELATIONSHIP BETWEEN STUDENT ENGAGEMENT AND MOTIVATION: TEACHER REPORTS FROM THE ORRSEM PROJECT K. Skilling	356
NON-TRADITIONAL STUDENTS IN HIGHER EDUCATION. CHALLENGES FOR THE TERTIARY LIFELONG PROGRAMS DURING COVID-19 M.E. Samoila	363
GAMIFYING THE STUDENT LEARNING PROCESS: ENHANCING COLLABORATIVE EXPERIENCES WITHIN A CONNECTIVIST LEARNING ENVIRONMENT M. Neo, Z. Ismat	372
ENHANCING STUDENT LEARNING OUTCOMES THROUGH COMMUNITY-BASED PROBLEM SOLVING AND CRITICAL THINKING GAME-BASED PRACTICES Z. Ismat, M. Neo	379
PROJECT-BASED LEARNING WITHIN A TECHNOLOGY-BACKED AUTHENTIC LEARNING ENVIRONMENT: ITS EFFECT ON STUDENT LEARNING EXPERIENCES M. Neo, M.G.R. Pandin, Y.Y. Tan, P.H. Siew, S.N. Kew	386
LEVERAGING AUGMENTED REALITY FOR ENHANCED STUDENT ENGAGEMENT & COLLABORATION IN AN EXPERIENTIAL LEARNING CLASSROOM N. Mahendru, M. Neo	392
BLENDED LEARNING APPROACHES IN THE 21ST CENTURY CLASSROOMS: ITS IMPACT ON THE STUDENT, TEACHER AND TECHNOLOGY M. Neo, A.R. Adriyanto, A.N. Fadilla, B. Prabawa, W. Swasty	399
DESIGNING MICROLEARNING ENVIRONMENTS TO ENHANCE STUDENTS' MOTIVATION AND RETENTION LEVELS IN THE CLASSROOM: MALAYSIAN STUDENTS' PERSPECTIVE M. Neo, N. Ludin	405
PRESS START TO BEGIN. BENEFITS AND ISSUES OF GAMIFICATION M. Sanesi	412
EFFECT OF COLLABORATIVE LEARNING INSTRUCTIONAL STRATEGY ON SOCIAL SKILL DEVELOPMENT OF PRIMARY SCHOOL PUPILS C. Okeke, T. Akobi	419
EFFECT OF EDUTAINMENT VIDEOS ON COGNITIVE AND SOCIAL SKILLS DEVELOPMENT OF PRESCHOOL CHILDREN T. Akobi, C. Okeke	426

COMMUNICATION BETWEEN TEACHERS AND PARENTS OF CHILDREN LEARNING IN ELEMENTARY SCHOOL IN A SPECIAL EDUCATION CLASS USING THE WHATSAPP APPLICATION E. Wasserman, T. Asraf	436
SCHOOL LEADERS AND PROFESSIONAL DIGITAL COMPETENCE FOR TEACHERS C.E. Tømte	437
TEACHING FRENCH LITERATURE ONLINE: CHALLENGES CAUSED BY THE MOVE FROM FACE-TO-FACE TO REMOTE LEARNING L. Lutas	438
DEVELOPED LECTURE VIDEOS AND PRACTICES QUESTIONS TO AID TEACHING UNDERGRADUATE PROGRAMING LANGUAGES COURSES ONLINE $H.\ Yu$	446
IMPROVING MOTIVATION IN STATISTICS THROUGH COMPETITION O. Trull, N. Martínez-Alzamora, F. Sempere-Ferre, J.M. Soler-Torró	450
THE DEBATE AS A TOOL FOR LEARNING STATISTICS: APPLICATION TO THE TEACHING OF AEROSPACE ENGINEERING N. Martínez-Alzamora, F. Sempere-Ferre, O. Trull, J.M. Soler-Torró	457
SOCIAL WORK EDUCATION, SOCIAL MEDIA AND ONLINE ABUSE: RESPONDING TO SERVICE LEARNERS' NEEDS AND EXPERIENCES F. Ó Súilleabháin, O. Halvey, K. Burns, E. O'Callaghan	463
THE EDUCATIONAL STOPLIGHT, AN EDUCATIONAL INTERVENTION PROGRAM FOCUSED ON THE COMMITMENT OF EDUCATIONAL ACTORS L. Sanabria	464
LEARNING ANALYTICS AS A TRANSFORMATION TOOL IN HIGHER EDUCATION OF SUB-SAHARAN AFRICA: A LITERATURE ANALYSIS O. Ogundaini, N. Mlitwa	471
SCHOOL BELONGING AS A PREDICTOR OF PSYCHOLOGICAL AND ACADEMIC FUNCTIONING OF SECONDARY SCHOOL STUDENTS DURING THE COVID-19 PANDEMIC K. Hlúpiková, J. Uhláriková	479
DESIGNING AND IMPLEMENTING A FRAMEWORK TO BUILD EFFECTIVE LEARNING-COMMUNITIES IN DISTANCE LEARNING PROGRAMMES N. Anderson, A. McGowan, D. Cutting, L. Galway, M. Collins	485
TOWARD A MATRIX OF COMPETENCES FOR RESPECTFUL COMMUNICATION IN THE UNIVERSITY-CIVIL SOCIETY CONTEXT D. Robescu, S. Reiner, A. Trunk, A. Draghici	486
INNOVATIVE PEDAGOGICAL SOLUTIONS FOR ENGINEERING EDUCATION - BEST PRACTICES FOR EDUCATION 4.0 D. Robescu, M.E. Boatca, A. Draghici, A. Mazilescu	496
INTERDISCIPLINARY LEARNING AND AWARENESSES FOR TEACHING S. Rodney, A. Mamolo, D. Tepylo	506
LEADERSHIP IN EDUCATION: THE IMPACT OF LEADERSHIP ON THE SUCCESSFUL IMPLEMENTATION AND SUPPORT OF REMOTE TEACHING, LEARNING AND ASSESSMENT J. Stoltenkamp, P. Dankers	507
BECOMING A TEACHER THROUGH A SALARIED EMPLOYMENT-BASED ROUTE T. Wallis	517
JOB CONDITIONS AND EXPECTATIONS OF YOUNG GRADUATES IN COVID-19 CONTEXTS L.N. Sousa, M.J. Sousa Pinto dos Santos	518
WORK RISKS IN PANDEMIC TIMES L.N. Sousa, T. Paiva	526
USE OF NUTRITIONAL EDUCATION TO PROMOTE WELL-BEING FOR ALL PEOPLE OF ALL AGES: "NUTRIEDUCAR@PRENDIENDO" SERVICE-LEARNING PROJECT V. Loria-Kohen, M.C. Lozano-Estevan, L.M. Bermejo, B. López-Plaza, L.G. González-Rodríguez, M.D. Salas-González, A.M. Lorenzo Mora, M. Larrosa, S. Martínez-López, R.M. Ortega Anta, A.M. López-Sobaler, A. Aparicio	536
LEARNING ANALYTICS DASHBOARD FOR SELF-REGULATION LEARNING: STUDENTS' PERCEPTIONS OF LEARNING AND SATISFACTION L. Martins. L. Lluch. E. Cano. E. Puertas	544

METACOGNITIVE AWARENESS AND SELF-DIRECTED LEARNING SKILLS OF PARTICIPANTS IN ACADEMIC COMPETITIONS: A CASE STUDY WITH ROMANIAN STUDENTS IN COMPUTER SCIENCE S. Susnea, E. Pecheanu, V. Jascanu, A. Cocu, I. Susnea	552
CONTENT KNOWLEDGE MASTERY AND GAPS OF TECHNICAL SCIENCES TEACHERS. A CASE OF ONE EDUCATION DISTRICT IN SOUTH AFRICA S. Sibanyoni, M.P. Rankhumise, T.M. Moagi	558
"CHECK IT YOURSELF": AN ONLINE CROWDSOURCING-BASED APPLICATION FOR CHECKING NEWS VALIDITY EXPLOITING SOCIAL CHOICE THEORY AND INFOVIS A. Stefanopoulos, E. Papaioannou, N. Karanikolas, G. Moisiadis, C. Kaklamanis	559
THE APPLICATION OF TPACK IN THE METHODOLOGY OF THE FLIPPED CLASSROOM AND WITH THE EVALUATION OF THE UTAUT TO MEASURE THE IMPACT OF STEM ACTIVITIES IN IMPROVING THE UNDERSTANDING OF CONCEPTS OF APPLIED SCIENCES A. Plageras, K. Kalovrektis, A. Xenakis, D. Vavougios	569
SELF-ASSESSMENT QUESTIONNAIRES FOR THE SUBJECT BIOLOGY OF THE DEGREE IN BIOCHEMISTRY AND MOLECULAR BIOLOGY ARE A USEFUL TOOL TO ASSIST STUDENTS IN THEIR LEARNING S. I Zandalinas, V. Vives-Peris, R.M. Pérez-Clemente, A. Gómez-Cadenas, M.F. López-Climent	576
EMBRACING TECHNOLOGY TO ENHANCE TEACHING AND LEARNING: A LOVE/HATE RELATIONSHIP IN HIGHER EDUCATION INSTITUTIONS L. Zizka, G. Probst	581
THE PEDAGOGY OF AN INTRODUCTORY UNIVERSITY-LEVEL MAYA COURSE J. O'Brien	589
A PROPOSAL FOR A VIRTUAL REALITY METHOD IN LANGUAGE LEARNING M. Vallarino, G. Vercelli	596
AUTOMATING THE ASSESSMENT OF CREATIVITY IN CLASSROOMS D. Cropley	601
GENERATIVE AI AND CREATIVITY: HOW CHATGPT CAN ENHANCE STUDENT CREATIVITY D. Cropley	602
HOW TO MAKE BIOLOGY FUN WITH VIRTUAL REALITY – CASE STUDY FROM ALIVE PILOT EVALUATION Z. Palkova, P. Palko, E. Berešová, D. Viskupová Srnková	603
PEDAGOGY IN DIGITAL AGE AFTER THE COVID-19 PANDEMIC – A CASE STUDY WITH UNDERGRADUATE LIFE SCIENCE STUDENTS S. Pais, S. Bernardino, A. Pires	610
WHY DOES THE ROBOT GO TO HIGHSCHOOL? TO LEARN ITS FUTURE SKILLS! – FUTURE SKILLS – THE FUTURE OF HIGHER EDUCATION J. Kleppsch	611
NARROWING THE GAP BETWEEN THE CLASSROOM AND THE CAPITAL MARKETS: THE USE OF REAL-LIFE CONTEXT IN A FINANCIAL MATHEMATICS COURSE F. Sánchez Coll, C. Donaldson, J. Villagrasa	616
IMPLEMENTATION OF A FLIPPED CLASSROOM MODEL IN THE PROBLEM SESSIONS OF THE SUBJECT CROP PROTECTION OF THE DEGREE IN AGRIFOOD AND RURAL ENGINEERING V. Vives-Peris, S.I. Zandalinas, M.F. López-Climent, A. Gómez-Cadenas, R.M. Pérez-Clemente	626
FROM THE UNIVERSITY TO THE WORKPLACE – LOVE AT FIRST SIGHT OR DELIBERATE CHOICE? D. Taneva, M. Vladimirova, A. Kirkova-Bogdanova	630
MATHEMATICAL JOURNEY ON A DESERT ISLAND OR EXPERIENCING THE MATHEMATICIAN'S CRAFT M. Abrate, F. Ceragioli, L. Damonte, L. Lussardi	634
CAN WE QUANTIFY THE AFFORDANCE OF DIGITAL TOOLS? INTRODUCING A NEW METHODOLOGY DESIGNED TO ALIGN PEDAGOGY AND TECHNOLOGY R. Osborne	639
HEALTH SECTOR SKILL ALLIANCE FOR CREATING INNOVATIVE AND EFFICIENT VET PROGRAMMES AND IMPROVING THE DIGITAL SKILLS OF MEDICAL PHYSICS AND HEALTH PROFESSIONALS I. Marin, A. Conci, D. Popovici	640

PARENTS: "E-PREP" FOR EDUCATION IN THE EUROPEAN UNION I. Marin, M. Fragkaki, D. Popovici, A. Erbil, E. Voyiatzaki	651
RELIGIOUS PUBLICATIONS AND YOUTH IN THE CONTEXT OF RELIGIOUS EDUCATION: THE CASE OF HIGH SCHOOL STUDENTS IN ISTANBUL B. Gürer	661
STRATEGIC RISK MANAGEMENT IN HIGHER EDUCATION INSTITUTIONS: INTEGRATED RISK ANALYSIS AND THE AHP APPROACH I. Dvorski Lacković, N. Begičević Ređep, D. Miloš Sprčić	665
A LEADER'S SELF-EFFICACY THROUGH THE EYES OF THEIR FOLLOWERS L. Paskova	671
AN IDEAL LEADER THROUGH THE EYES OF THEIR FOLLOWERS L. Paskova	676
A REVIEW OF MULTIDISCIPLINARY COLLABORATION IN AEC EDUCATION N.S. Tadesse, H.B. Cavka	684
ETHICS IN COLLABORATIVE EDUCATIONAL ENVIRONMENTS: A REFLECTION PAPER M. Simonette, V. Queiroz, E. Spina	693
HOW CAN AI BE USED TO ENHANCE CASE SIMULATIONS? R. Babin	699
TEACHER TRAINING ON MOBILE AND GAME-BASED LEARNING: LITERATURE REVIEW AND TRAINING PROGRAM PROPOSAL M. Marques, L. Pombo	707
IMMERSIVE READING AS A CONTEMPORARY TECHNIQUE IN LIFELONG LEARNING E. Kudryavtseva, R. Kuzminov, D. Abuzyarova	716
THE REALITY OF RESEARCH IN VIRTUAL AND GLOBALIZING WORLDS: DIGITAL GAMES AS A PETRI DISH FOR LEARNING, TECHNOLOGY AND METHODOLOGY P.G. Schrader, M. Carroll	723
DEVELOPMENT AND EVALUATION OF THE SCIENTIFIC RESEARCH ACTIVITY OF STUDENTS IN MATHEMATICS IN LATVIA S. Cernajeva, I. Volodko	724
A MICROSCOPIC ADVENTURE: UNITY BETWEEN TWO MICROSCOPIC DATA S. Tanabashi	730
USE OF ENGLISH LANGUAGE LEVELS TO ENHANCE THE UNDERSTANDING OF CAMBRIDGE CENTRE FOR EVALUATION AND MONITORING (CEM) ASSESSMENT OUTCOMES FOR STUDENTS WHO DO NOT HAVE ENGLISH AS THEIR FIRST LANGUAGE C. Jellis	735
COMPARISON OF DISTANCE, HYBRID AND FACE-TO-FACE LEARNING PROCESS USING GITHUB AND GITHUB CLASSROOM M. Turčić, D. Ćutić, M. Rudolf, T. Bogović	742
BURNOUT SYNDROME IN UNDERGRADUATE STUDENTS AND TEACHING MEDICAL PROFESSIONALS M.P. Rubiano Varela, L. Martinez, S. Perez, C. Agudelo, M. Zuluaga, I. Luna, L. Jaramillo, K. Marisancen	751
FINANCIAL EDUCATION USING DECISION SOFTWARE SOLUTION D. Oprea, E. Tundrea	752
LET'S TALK MOM: THE USE OF NARRATIVES IN COMMUNICATING NEUROSCIENCE TO LOW-INCOME STATUS PREGNANT MOTHERS A. Negrete, R. Rosenblatt	762
AGNOSTIC DATA ACQUISITION AND INTERPRETATION FROM NOVEL CONTEXTS: EDUCATIONAL DATA MINING FOR ONLINE GAMES M. Carroll, P.G. Schrader	769
COMMUNITY GENERATED, SOCIALLY VALIDATED HYPOTHESIS TESTING WITH LEARNING ANALYTICS P.G. Schrader, M. Carroll, S.A. Shaw	775
THE DISCUSSIŌ PROJECT: DESIGN OF DIGITAL RESOURCES TO ADDRESS CONTROVERSIAL ISSUES A. Almeida, A. Cardoso, J. Souza	783

PEER FEEDBACK AND PEER REVIEW IN HIGHER EDUCATION: MIRRORING AND TRANSFORMATIVE PRACTICES IN ACTIVE LEARNING PROCESSES M. Pentucci, C. Laici	790
ISSUES OF ORGANIZING COOPERATIVE LEARNING IN HIGHER EDUCATION E. Nazmieva, N. Pershina	800
FOREIGN LANGUAGE ACQUISITION OF UNIVERSITY STUDENTS IN THE CONTEXT OF A COOPERATIVE APPROACH TO TEACHING E. Nazmieva, V. Tarasova	804
LEARNING OUTSIDE SCHOOL: ACTIVITY PLANNING STRATEGIES AND IMPLEMENTATION I. Tandzegolskiene-Bielaglove, S. Remeikiene	808
SEARCHING OF NON-STANDARD SOLUTIONS FOR ESTABLISHMENT OF EDUCATIONAL ENVIRONMENT FAVOURABLE FOR INTERNATIONAL STUDENTS R. Poceviciene	818
THE ASSESSMENT PROCESS IN THE DEVELOPMENT OF SKILLS OF RESIDENTS IN MULTIPROFESSIONAL HEALTH RESIDENCE PROGRAMS M.F. Alves, L.P. Figueredo, G.M. Guerra	825
LEARNING FROM LINGUISTIC LANDSCAPES - PRACTICAL ENGLISH LANGUAGE LEARNING AND AWARENESS OF TRADITIONAL CULTURE Y. Hiramatsu, M. Morishita	838
WORKING TOGETHER TOWARDS LEARNING - AN EXAMPLE OF USING PEER TEACHING IN HIGHER EDUCATION A. Sivonen, K. Heikkinen	845
IMPROVED LEARNING OUTCOMES AND STUDENT ENGAGEMENT THROUGH FLIPPED LESSONS K. Heikkinen, A. Sivonen	851
TAKING DIFFERENT PLAYER TYPES INTO CONSIDERATION WHILE IMPLEMENTING EDUCATIONAL GAME - EFFECT ON STUDENT EXPERIENCE AND ACADEMIC RESULTS A. Sivonen, K. Heikkinen	858
LONGITUDINAL ANALYSIS OF PRODUCTION IN SEEDBED RESEARCH: A CASE STUDY B. Naranjo Sánchez, J. Peñafiel Rosado	865
INNOVATIVE TRANSNATIONAL / INTERNATIONAL HIGHER EDUCATION PROGRAMS M. Bernal, A. Apa	874
A COLLABORATIVE AND PROBLEM-BASED LEARNING CASE INTO A MECHANICAL ENGINEERING SUBJECT: OPTIMAL DESIGN FROM CHARACTERISTIC CURVES OF INTERNAL COMBUSTION ENGINES F. Cruz-Peragón, A.J. Extremera-Jiménez, A. Palomar-Torres, E. Torres-Jiménez, F.J. Gómez-de la Cruz	880
CALCULATION TOOLS FOR FAST ASSESSMENT OF EXPERIMENTS IN SHORT LAB SESSIONS WITH THERMAL MACHINES F. Cruz-Peragón, A. Palomar-Torres, A.J. Extremera-Jiménez, F.J. Gómez-de la Cruz, E. Torres-Jiménez	888
"CLASS+CLASSICS" AS THE FIRST INFORMAL EDUCATIONAL PROGRAM IN THEATRES OF ARMENIA M. Mkrtchyan	896
PHYSICAL SCIENCE EDUCATORS' TEACHING APPROACHES FOR FACILITATING CONCEPTUAL UNDERSTANDING OF STOICHIOMETRY K. Booi	902
EXPLORING INCLUSIVE ASSESSMENT TO EMPOWER LEARNERS WITH DIVERSE INTELLECTUAL NEEDS N.I. Shabalala, K. Booi	906
STEM PROBLEM SOLVING USING THE ARONSON'S JIGSAW COOPERATIVE TEACHING APPROACH M. Garmendia, K. Zuza, J. Guisasola, X. Garikano, J. Gutierrez-Berraondo, P. Sarriugarte-Onandia	911
INTERDISCIPLINARY WORKSHOPS IN THE EDUCATION OF ARCHITECTS J. Illes, K. Kristianova	918
ARCHITECTURAL EDUCATION - EXPERIENCES WITH DESIGN STUDIO ASSIGNMENTS LINKED TO STUDENT COMPETITIONS J. Illes, K. Kristianova	922

IMPROVING LEARNING CONTENT AND ENGAGING LEARNERS THROUGH THE REVISED COMMUNITY OF INQUIRY (RCOI) FRAMEWORK: INDONESIAN DESIGN STUDENTS' PERSPECTIVES L. Indriati, M. Neo, H.Y.J. Tan	927
FROM THEORY TO PRACTICE: IMPLEMENTING AUTHENTIC LEARNING ACTIVITIES IN AN INDONESIAN DESIGN MANAGEMENT CLASS L. Indriati, M. Neo, H.Y.J. Tan	934
THE ACADEMIC PERFORMANCE OF CIVIL ENGINEERING STUDENTS UNDER COVID-19 DISRUPTIONS W. Loo, L. Tuleasca	938
MAXIMIZING LEARNING EFFICIENCY WITH CHATGPT: WAYS TO INTEGRATE ARTIFICIAL INTELLIGENCE INTO EDUCATION I. Lera, G. Moyà-Alcover, C. Guerrero, A. Jaume-I-Capó	946
ARTIFICIAL INTELLIGENCE AND EDUCATIONAL ASSESSMENT SYSTEM LANDSCAPE, CHALLENGES AND WAYS TO TACKLE AI BASED PLAGIARISM D. Lukac, A. Lazareva	953
THE IMPACT OF HIGHER EDUCATION STUDENTS' MEANINGS ON UNIVERSITY QUALITY PERCEPTION IN PORTUGAL M.L. Neves, M. Varela, R. Fragoso	963
IMPROVING THE QUALITY AND ATTRACTIVENESS OF UNIVERSITY EDUCATION WITH THE PRACTICAL USE OF THE INTERNET OF THINGS J. Pillár	969
PARENTAL ENGAGEMENT IN DISTANCE LEARNING: FORMS OF CAPITAL, PEDAGOGICAL ASPECTS, AND FAMILY CHARACTERISTICS 1. Sasson, Y. Grinshtain, N. Okavi	976
50% FOR THE FUTURE: ADDRESSING THE UNDERREPRESENTATION OF FEMALE STUDENTS STUDYING MECHANICAL ENGINEERING A. Rees, J. Thompson	977
BARRIERS TO IMPLEMENT ADVANCED ANALYTICS IN LATVIA'S EDUCATION INDUSTRY S. Lemsa	978
MICROLEARNING FOR GENERATION Z IN THE FOREIGN LANGUAGE CLASSROOM T. Krasnova, A. Kouznetsova, M. Ovsyannikova, A. Loginova	987
SCILAB FREE SOFTWARE FOR NUMERICAL COMPUTATION: A WIND ENERGY EDUCATIONAL TOOL J. Ureña Jorquera, I.C. Gil García, A. Molina García	997
INTEGRATION OF SUSTAINABLE DEVELOPMENT GOALS IN PROJECT BASED LEARNING THROUGH FLIPPED CLASSROOM J. Requies, L. Barrio, E. Acha, I. Agirre, N. Viar, I. Gandarias	1004
DEVELOPING CREATIVE DIGITAL EDUCATION FOR SUSTAINABLE AIR TRANSPORT AND LOGISTICS T. Patala, A. Ketola	1011
ALGIARISM: ARTIFICIAL INTELLIGENCE-ASSISTED PLAGIARISM C. Halupa	1018
STRUCTURAL–FUNCTIONAL MODEL OF FORMING THE TEACHERS' READINESS TO MANAGE THE DEVELOPMENT OF INTELLECTUALLY GIFTED STUDENTS G. Eremeeva, N. Sigacheva, R. Bikbulatov	1025
INTERDISCIPLINARY INTEGRATION AT THE UNIVERSITY: DEVELOPMENT OF A NEW DISCIPLINE N. Sigacheva, G. Eremeeva	1033
EXPERIENTIAL LEARNING APPLIED TO SOLID URBAN WASTE MANAGEMENT: LEARNING WHILE WALKING AROUND THE CITY L.M. Ruiz	1040
DEVELOPMENT OF MEDIA LITERACY IN TEACHING ENGLISH AS A FOREIGN LANGUAGE: AN INTERACTIVE ASPECT E. Bystray, E. Chelpanova, F. Zakirova, V. Moshkovich, A. Shabalina	1046
HOW TO MAKE LEARNING A PLEASURE? REFLECTIONS ON EMOTION, COGNITION AND EDUCATIONAL STRATEGIES E. Palomba	1051
HOW DOES ART EXPRESS COMMUNICATION? S. Veinberg	1060

TELECOLLABORATION SUPPORTED BY THE COMBINATION OF COMPUTER AND MOBILE ASSISTED FOREIGN LANGUAGE TEACHING AND LEARNING FOR SPECIFIC PURPOSES E. Mavropoulou	1065
DIGITAL STORYTELLING IN THE TEACHING AND LEARNING OF FRENCH AS A FOREIGN LANGUAGE: DESIGN AND CREATION OF AN E-BOOK E. Mavropoulou	1073
MATH PATHWAYS EMERGING FROM DESIGN THINKING METHODOLOGY H. Costa, A. Breda, T. Neto	1082
USE OF TECHNOLOGY, AS A TOOL TO IMPROVE ACADEMIC AND SOCIAL FUNCTIONING, AMONG STUDENTS WITH VISUAL IMPAIRMENTS OF ELEMENTARY SCHOOL AGE E. Wasserman, N. Alfasi	1091
PERCEIVING NEEDS FELT BY THE PORTUGUESE COMMUNITY WITH VISION IMPAIRMENT I. Monteiro, A. Breda, R. Duarte	1092
TECHNOLOGY FOR DEVELOPING STUDENTS' CRITICAL THINKING BASED ON WORKING WITH MEDIA TEXT IN ENGLISH E. Chelpanova, E. Bystray, V. Moshkovich, A. Shabalina, F. Zakirova	1100
PYRAMID OF SELF-ACTUALIZATION AS A LIFELONG LEARNING MODEL E. Kudryavtseva, R. Kuzminov, O. Plyaskina	1107
INSTAGRAM IS A RELIABLE LEARNING TOOL FOR INCREASING STUDENTS' COMPETENCIES IN USING APA GUIDELINES	1113
S. Collado, R. Rodríguez-Rey, C. Fidalgo, M. Sorrel, M. Sánchez-Izquierdo, E. Santaolalla, H. Garrido-Hernansaiz	
THE TEACHING AND RESEARCH LABORATORY - AN OPPORTUNITY FOR INTELLECTUAL AND CREATIVE EXPRESSION IN THE EDUCATIONAL PROCESS R. Lebedova, M. Sapundzhiev	1114
PROFESSIONAL COMPETENCE OF TEACHING FOREIGN LANGUAGES AT UNIVERSITIES IN THE CONTEXT OF DIGITAL EDUCATION (EXAMPLE OF RUSSIAN AND CHINESE UNIVERSITY TEACHERS) R. Meng, A. Boltaeva	1119
THE EFFICIENCY OF INTERACTIVE VIDEOS IN EVOLVING VOCABULARY AND THE SPEAKING SKILLS OF UNIVERSITY STUDENTS WHILE TEACHING ENGLISH AND CHINESE A. Boltaeva, R. Meng	1127
FLIPPED VERSUS TRADITIONAL CLASSROOM AND STUDENT ACHIEVEMENT IN ENGINEERING: THE INFLUENCE OF GENDER Z. Azkorra-Larrinaga, I. Gómez-Arriaran, K. Martín-Escudero, E. Perez-Iribarren, N. Romero-Antón	1135
PERCEPTION AND ATTITUDES TOWARD EMERGING TECHNOLOGY OF BIOMETRICS AMONG CROATIAN STUDENTS A. Papić, D. Szombathelyi	1140
A NEW METHODOLOGY FOR THE LABORATORY SESSIONS IN A SCIENCE DEGREE R. Niclòs, E. Valor, L. Pérez-Planells, V. García-Santos, I. Gómez, V. Estellés, G. Soria, C. Coll	1144
SCHOOL MANAGEMENT AND LEADERSHIP IN UNCERTAIN TIMES: VIEWS FROM THE UAE Z. Hojeij	1150
DESIGNING REGULATION IN ACTION TO MANAGE THE UNFORESEEN IN TEACHING-LEARNING CONTEXTS M. Pentucci, P.G. Rossi, L. Capolla	1151
CAREER FOCUSED CURRICULUM DESIGN IN ENGINEERING C. Geary, P. Kelly, F. Boyle, J. Walsh	1159
EU3DIGITAL - ENSURING THE SUCCESS AND SUSTAINABILITY OF THIRD SECTOR ORGANISATIONS AND SOCIAL ENTERPRISES BY BOOSTING DIGITAL SKILLS AND COMPETENCES USING TRAINING RESOURCES A. Aguiar, A. Soeiro, C. Jacklin-Jarvis, T. Foster	1160
DIGITAL STORYTELLING FOR THE DEVELOPMENT OF 21ST CENTURY SKILLS IN THE SECONDARY EFL CLASSROOM S. Maravelaki	1169
TAKING SCHOOL OUTDOORS: MATHEMATICAL TRAILS AS A TEACHING RESOURCE H. Ambrósio, A. Hall, S. Pais	1184

THE SYNERGY BETWEEN EDUCATION, PRACTICE AND RESEARCH IN SOCIAL WORK Y. Marti Haidar	1191
REPRESENTATION OF KNOWLEDGE EXTRACTED FROM THE DIGITAL BOOKLET DATA FOR THE WORK-STUDY PROGRAM B. Mbaye	1192
HYBRID TEACHING AND LEARNING: VISION AND REALITY D. MacKevett, P. Feubli	1197
DIGITAL NATIVES IN HIGHER EDUCATION: LESSONS LEARNED FROM THE COVID-19 PANDEMIC M.E. Samoila	1207
ACADEMIC RESEARCH IN BETWEEN USER NEEDS AND INDUSTRY DEMANDS IN THE CONTEXT OF THE SILVER ECONOMY S. Palmieri, M. Bisson, A. Ianniello, R. Palomba	1213
ASSESSING LEARNER PROFILES TO INCREASE LEARNING GAINS IN CONTINUING EDUCATION L. Paz, B. Dörr, K. Altmeyer, N. Peters, D. Werth	1221
THE USE OF DIVERSIFIED ACTIVE LEARNING METHODOLOGIES IN MATHEMATICS CLASSES – A CASE STUDY WITH PRE-SERVICE TEACHERS A. Hall, S. Pais	1229
ADULT EDUCATION AND DIFFERENT CONCEPTS D. Krystof	1236
MANAGEMENT OF SCIENTIFIC INFORMATION, A KEY SUBJECT TO MASTER EVIDENCE-BASED HEALTH CARE IN THE MEDICAL DEGREE S. Díaz de Castellví	1242
AREAS OF EVALUATION OF VOCATIONAL HIGH SCHOOL TEACHERS D. Krystof, P. Adamec	1247
IMPLEMENTING AN ANDON CORD IN HIGHER EDUCATION K. Khawaja	1252
TECHVETLAB: TURNING THE VET CLASSROOM INTO A VIRTUAL DEPARTMENT OF A TECHNOLOGY COMPANY L. Gómez Estrada, L. Pietra, L. Gómez Estrada, S. Randaccio, C. Zoli, R. Sixto Iglesias, R. Navarro Cerveró, J. Nunes, P. Carrolaggi, P. Karampelas, J. Tormos Capilla, J.L. Gómez Ribelles	1257
LEARNING HELPING: INCLUSIVE EDUCATION OF ADULTS THROUGH VIRTUAL	1265
VOLUNTEERING R. Sixto Iglesias, P. Carrolaggi, S. Randaccio, L. Pietra, C. Zoli, D. Didane, S. Kolsi, G. Massari, S. Tumino, M. Strimpel, S. Nabi, R. Navarro Cerveró	
ECONOMIC CONSTRAINTS, CAREER ADAPTABILITY AND PERCEPTION OF FUTURE DECENT WORK AMONGST UNDERGRADUATE STUDENTS L. Faria, C. Gouveia, L. Florêncio	1273
SEEING THE INVISIBLE: INCLUSIVE DIGITALIZATION OF LOW VISION STUDENTS IN SCHOOL EDUCATION	1283
R. Navarro Cerveró, R. Sixto Iglesias, P. Carrolaggi, S. Randaccio, L. Pietra, C. Zoli, T. Hauge, S. Orstenvik, M. Castelnuovo, B. Poli, C. Teofili, M. Pellegrino, G. Gening, L. Mosquera, O. Simerea, M. Rafecas, M. Puerto	
MERLIN'S PLAYGROUND: STUDENTS' ATTITUDES AND PERCEPTIONS OF SOLVING ELECTROMAGNETISM PROBLEMS IN A VIRTUAL REALITY ENVIRONMENT T.K. Neo, A. Amphawan, K. Hamidani	1288
IMPLEMENTATION OF PBL TO ELICIT STUDENT ENGAGEMENT OF UNDERGRADUATE CREATIVE MULTIMEDIA STUDENTS DEVELOPING XR APPLICATIONS K. Hamidani, T.K. Neo, A. Amphawan, A.I. Susanti, M. Pradana, S. Artadita	1296
GENDER DIFFERENCES IN TOURISM STUDENTS' PERCEPTIONS OF DECENT WORK L. Faria, C. Gouveia, L. Florêncio	1305
CLASSROOM MANAGEMENT IN INCLUSIVE SCHOOLS (INCLASS) – DEVELOPMENT OF AN ASSESSMENT TOOL FOR TEACHER EDUCATION S. Lutz, M. Gebhardt	1313
COMPLEX STUDENT PATHWAYS: EXPLORING THE TIME TO DEGREE V. Miguéis, J.P. Pêgo, A. Soeiro	1318
EFFECTIVENESS OF THE E-LEARNING EDUCATION BASED ON PJAIT EXPERIENCE A. Drabik, J.P. Nowacki, L. Banachowski, P. Lenkiewicz	1319

NEW ONLINE MASTERS DEGREES TO MEET THE NEED FOR CYBER PROFESSIONALS S. Sarkani, T. Mazzuchi	1324
PARENTS AND SCHOOL INTERVENTIONS IN PROTECTING CHILDREN AND YOUTH IN ONLINE SPACE: BEST PRACTICES FROM A EUROPEAN PROJECT M. Tomita, G. Grosseck, R. Ungureanu	1325
ICT AND SATISFACTION: ANALYSIS OF THE CHARACTERISTICS OF UNIVERSITY STUDENTS A. Marín García, I. Gil Saura, M.E. Ruiz Molina, R. Gil Saura, M.S. Moise	1331
HOW TO BOOST STUDENT SATISFACTION THROUGH ICT?: ANALYSIS OF A CASE IN UNIVERSITY CLASSROOMS A. Marín García, I. Gil Saura, M.E. Ruiz Molina, M.S. Moise, R. Gil Saura	1332
ACTIVE LEARNING OF GENETICS STUDENTS THROUGH THE STUDY OF PLUMAGE COLORATION IN DUCKS (MULTIPLE ALLELES) H.V. Bárcenas-Rodríguez, V. Martínez-Toledo, M.A. Carballo-Ontiveros, A.A. Mendoza-Amador, A.N. Castañeda-Sortibrán	1333
ACADEMIC, SOCIAL AND CULTURAL EXPERIENCES OF STUDENTS IN A UNIVERSITY OUTSIDE THEIR ETHNIC SOCIETIES A. Kuranchie, I.J. Obeng	1339
UNIVERSITY OF SOUTH AUSTRALIA STUDENT UNION (USASA) FINANCIAL WELLBEING PROGRAM: EMPOWERING STUDENTS THROUGH FINANCIAL LITERACY L.F. Gardeazabal Penuela	1346
FOSTERING INNOVATION IN EDUCATION THROUGH PEDAGOGICAL PRACTICE AND RESEARCH IN THE COMPUTER SCIENCE TEACHING CURRICULUM: A COMPARATIVE ANALYSIS I.C. Muñoz	1352
READILY AVAILABLE FREE MOBILE AND TABLET APPLICATIONS TO HELP THE INCLUSION OF BLIND AND VISUALLY IMPAIRED PUPILS IN THE SCIENCE LABORATORIES A. Herrero, C. Reguera, S. Sanllorente, S. Palmero, M. Ciulea, T. Osorio, J. Muñoz, G. Stojanovic, A.	1358
Jakovchevska	
METHODOLOGICAL PROPOSAL FOR THE INCORPORATION OF ICT IN THE MATHEMATICS CURRICULUM IN RURAL CONTEXT J.C. Giraldo	1368
THE PARADOXICAL LIFE OF ANDRAGOGUES R. Zhang, R. de Villiers, J. Scott-Kennel	1378
THE EFFECT OF ONLINE LEARNING TASK DESIGN ON THE TRAJECTORY OF LEARNER AUTONOMY: A CASE STUDY IN A NEW ZEALAND CONTEXT Q.M. Zhong	1387
A NEW INFORMATION TECHNOLOGY EDUCATION METHOD REQUIRING STUDENTS TO ANSWER ICT NATIONAL EXAM QUESTIONS WRITTEN IN A FOREIGN LANGUAGE Y. Miyamoto	1392
THE DEVELOPMENT OF ASYNCHRONOUS MICRO-TRAINING VIDEOS PRE AND POST COVID-19 S. Thomas, C. Mathew	1397
FOSTERING SELF-REGULATED LEARNING IN AN AUTHENTIC DIGITAL LEARNING ENVIRONMENT: AN EXPLORATIVE ANALYSIS R. Pape	1403
EXPERIENTIAL LEARNING USING AUGMENTED REALITY IN ENGINEERING EDUCATION C. Geary, J. Moolman, C. Mbabazi, F. Boyle, J. Walsh	1404
BLENDED, REMOTE AND HYBRID MODES IN LANGUAGE TEACHING	1413
N. Radić	1 41 4
ASSESSMENT OF THE INCLUSION OF EVALUATION RUBRICS IN THE PRACTICAL UNITS OF TELEMATICS AND TELECOMMUNICATION ENGINEERING DEGREES SUBJECTS I.M. Barry Language J.C. Course Markings, A.L. Victor Delegale, B. Vicinus, Alad, B.L. Barks Language.	1414
J.M. Perez-Lorenzo, J.C. Cuevas-Martínez, A.J. Yuste-Delgado, R. Viciana-Abad, P.J. Reche-Lopez, F. Rivas-Peña	
ESCAPE ROOMS AS AN INNOVATIVE LANGUAGE LEARNING TOOL IN HIGHER EDUCATION TOURISM DEGREES A. Pires, S. Pais, A.E. Sousa	1420

3DCHEMMOL: WEB-BASED MOLECULAR MODELING INTERFACE SUPPORTING TECHNOLOGY-BASED LEARNING D. Dolničar, B. Boh Podgornik	1426
ASSESSMENT IN THE CONTEXT OF COLLABORATIVE LEARNING IN MATHEMATICS P. Carvalho, L. Descalço, H.F. Gonçalves	1436
CONFLICTING PERCEPTIONS OF FLIPPING TEACHING BY DENTISTRY STUDENTS M.P. Álvarez Vázquez, T. Angulo Carrere, E. Lozano Pérez, C. Bravo-Llatas, L. Del Campo Milán	1443
INTERDISCIPLINARY APPROACHES: EXPLORING THE FUSION OF MATHEMATICS, ART, AND CULTURE IN A PROFESSIONAL DEVELOPMENT COURSE FOR MATHEMATICS TEACHERS A. Breda, P. Carvalho, A. Hall	1449
AUTARKYO: INTERACTIVE APP FOR THE PLANNING AND EVALUATION OF ENERGY SELF-SUFFICIENT HOUSES A.L. Ehrhardt, H.J. Rzepus, C. Griehl, D. Broneske, N. Vorhauer-Huget	1458
INTERACTIVE RESOURCES TO ENHANCE SELF-LEARNING IN HIGHER EDUCATION S. Muñoz San Martín, J.L. Imaña Pascual, F. Herrera Fernández, G. Susi, J.C. Jiménez Saéz, P. Palacios Clemente, M. Barragán García	1468
OPTIMAL VIRTUAL REALITY EXPERIENCE FOR CULTURAL HERITAGE EDUCATION O. Nakov, O. Harizanova, M. Lazarova, V. Mladenov	1473
DEVELOPING UNDERGRADUATE STUDENTS' LEARNING TO LEARN ABILITIES THROUGH BLENDED LEARNING: A CASE IN HONG KONG E.W.K. Yeung, P. Hui, J. Xiao, C.P. Chung	1482
RELEVANCE OF A MASTER'S PROGRAM IN ADMINISTRATION IN EDUCATIONAL MANAGEMENT R.A. Gómez Ortíz, V. Cruz Morales	1487
INTERACTIVE LEARNING ENVIRONMENTS FOR ENHANCING THE ROLE OF HUMAN RESOURCE MANAGEMENT PRACTICES IN IMPROVING ORGANIZATIONAL PERFORMANCE F. Ceresia	1495
RECOMMENDER SYSTEMS IN THE LEARNING FIELD: A SYSTEMATIC REVIEW F. Norouzinia, N.C. Peters, L. Paz, M. Joergens, D. Werth	1501
COOPERATION OF A TEACHER WITH A TEACHING ASSISTANT J. Vítová, J. Wolf, M. Maněnová, M. Skutil	1509
ANALYSIS OF INTERACTION BETWEEN TEACHER AND TEACHING ASSISTANT IN CZECH CLASSROOMS J. Vítová, J. Wolf, M. Maněnová, M. Skutil, A. Vaněčková, S. Růžičková, A. Jirešová, A. Hejná	1516
SOCIAL MEDIA AND LEARNING: HAVE THE TENDENCIES CHANGED? EVIDENCE FROM THE UNIVERSITY OF CANTABRIA M. Obeso, M.C. López-Fernández, M. Pérez-Pérez, G. García-Piqueres	1524
EXAMINING THE METACOGNITIVE ABILITIES OF FUTURE TEACHERS AT THE FACULTY OF EDUCATION IN BELGRADE - A LONGITUDINAL STUDY B. Radulović, M. Stojanović, O. Zajkov, R. Gabdrakhmanova, M. Džinović, D. Mandić, I. Nikolić, S. Šehović, F. Prušević Sadović, J. Radojičić	1525
AN EVALUATION OF REQUIREMENTS FOR A MENTORSHIP FRAMEWORK INCORPORATING FEEDBACK FROM INDUSTRY I. Morris, K. O'Sullivan, N. Fitzgerald, J. Walsh, E. O Connell, F. Boyle	1529
ASSESSMENT THE IMPACT OF RISK FACTORS ON TEACHERS' HEALTH DURING THE PANDEMIC N. Koshkina, G. Popova	1534
HOW TO MEASURE THE DIFFUSION COEFFICIENT WITH THE HELP OF LASER? V. Sebelik	1542
APPROACHING MUSIC LISTENING IN HIGH SCHOOL: IMPLEMENTATION OF THE COGNITIVE-EMOTIONAL LISTENING TO MUSIC S. Vidulin	1548
COMPARATIVE ANALYSIS OF INTERNATIONALIZATION POLICIES OF LEADING OPEN UNIVERSITIES IN EUROPE S. Celikbas, E. Toprak	1549
DIGITAL MATHS PREPARATION COURSE IN MASTER CRAFTSMAN TRAINING - A PSEUDONYMOUS MULTIMETHOD EXPERIMENTAL STUDY D. Zaglmann, M. Haack, J. Mägdefrau	1555

A CASE STUDY OF LEADING AND SUPPORTING TEACHING TEAMS AT A PROGRAMME MANAGEMENT LEVEL FOR A 600+ STUDENT MSC MANAGEMENT PROGRAMME S. Buxton, T. Malik	1565
VIRTUAL REALITY AS A STRATEGY TO REDUCE EXAM ANXIETY - WHAT THE EVIDENCE TELLS US S. Mulholland, K. Werther, B. Concannon, S. Esmail	1570
TEACHING LANGUAGES VIA CLIL METHODOLOGY - ONLINE TRAINING OF PRIMARY SCHOOL TEACHERS HOW TO USE IT D. Hanesová	1571
SIMPLIFYING THE COURSE EVALUATION PROCESS: THE NET PROMOTER SCORE FOR USE IN ACADEMIA J. Schoenfeld	1578
PERCEPTIONS OF MENTORS AMONG MENTEES IN POSTGRADUATE PROGRAMMES FOR INTERNATIONAL STUDENTS D. Lopez, A. Clear	1579
THE PEDAGOGICAL ALLIANCE BETWEEN SCHOOL AND FAMILY IN INCLUSIVE PERSPECTIVE I. Zollo	1587
A GAMIFICATION STRATEGY FOR THE TEACHING OF TEAM COHESION CONCEPTS IN THE UNDERGRADUATE SPORT PSYCHOLOGY CLASSROOM M. Mann	1591
SELF-ASSESSMENT AND THE USE OF DIAGNOSTIC OUTPUT FROM COGNITIVE DIAGNOSIS MODELS TO PROMOTE STUDENT LEARNING M. Sorrel, P. Nájera, R. Kreichtmann, F. Abad, C. García, A. Martínez-Molina, S. Collado	1595
MOBILE LEARNING CONTRIBUTIONS TO TEACHING AND LEARNING: THE CASE OF THE UNIVERSITY OF AVEIRO D. Antunes, J. Batista, D. Simões	1596
TRAINING SKILLS IN THE USE OF RADIATION IN REAL MEDICAL TREATMENTS FOR HIGHER EDUCATION STUDENTS THROUGH MONTE CARLO SIMULATIONS S. Oliver, B. Juste, R. Miró, G. Verdú	1607
TRAINING IN OPERATION AND SAFETY OF NUCLEAR POWER PLANTS THROUGH ACTIVE LEARNING BASED ON IAEA REACTOR SIMULATORS B. Juste, R. Miró, T. Barrachina, S. Oliver, G. Verdú	1613
DSEXAMS: MASSIVE AND AUTOMATED GENERATION OF RANDOMIZED MULTIPURPOSE QUESTIONNAIRES E. López Cano, M. Cuesta, C. Lancho, C. Alfaro, M.J. Algar, A. Alonso-Ayuso, A. Fernández-Isabel, J. Gomez, I. Martin de Diego, J. Moguerza, F. Ortega, A. Udias	1620
CITYZEN PROJECT: PROMOTING URBAN AGRICULTURE IN SCHOOLS AS A TOOL OF TEACHING INNOVATION B. Urbano, I. Méndez, I. Areños, J. Díez	1628
TRAPS IN THE PROFESSIONAL DEVELOPMENT OF GEORGIAN TEACHERS T. Ivanidze, L. Kaminskienė	1634
DEVELOPMENT OF AN "AUGMENTED E-RUBRIC" WITH CRITICAL THINKING TO ASSESS COMPETENCES B. Urbano, D. Carpio, A.M. Bartolomé, F. González-Andrés	1639
SYSTEMIZATION OF RANGE AND SCALE OF THE APPROACHES TO EDUCATION OF TALENTED AND GIFTED CHILDREN IN THE EU EDUCATION SYSTEM V. Dombrovskis, N. Titova, M. Veide	1644
IMPLEMENTATION OF PROJECT BASED LEARNING TO ACHIEVE DEEP LEARNING IN STUDENTS OF THE DEGREE IN INDUSTRIAL DESIGN AND PRODUCT DEVELOPMENT ENGINEERING BETWEEN DIFFERENT SUBJECTS J. Ivorra-Martinez, V. Moreno, S. Rojas-Lema, D. Garcia-Garcia, L. Quiles-Carrillo	1654
ARE HIGHER EDUCATION TEACHERS PREPARED FOR A PERSONALIZED LEARNING ENVIRONMENT? Z. Kubincová, K. Miková	1661
THE SCHOLARSHIP OF EDUCATIONAL LEADERSHIP: A CASE STUDY OF DEVELOPING LEADERSHIP OF TEACHING, LEARNING AND ASSESSMENT IN A UNIVERSITY CONTEXT	1671
N. Herman, J.P. Bosman	

PROCEDURAL/ROTE LEARNING VS MEANINGFUL LEARNING: WHICH DO FIRST YEAR UNDERGRADUATE STUDENTS PREFER? M.P. de Sousa Oliveira	1681
UTILIZATION OF EVIDENCE BASED PRACTICE AMONG PHYSICAL THERAPISTS S. Elgelid	1691
GETTING READY FOR THE NEXT PANDEMIC, HOPEFULLY A LONG TIME FROM NOW S. Elgelid	1692
USING TECHNOLOGY TO TEACH YOUNG LEARNERS MATH SKILLS H. Shamir, E. Yoder, D. Pocklington, C. Wang, E. Greene	1693
CONTRIBUTION OF A UNIVERSITY MENTORING PROJECT TO THE DISSEMINATION OF THE SDGS A.I. Tarrero, M. Fernando, V.A. La Fuente	1701
EXPLORATORY DATA VISUALIZATION OF STUDENT INTERACTIONS I. Ogbuchi, E. Kiely, C. Quigley	1709
ENHANCING ENGINEERING LEARNING THROUGH THE USE OF AN INTERACTIVE LABORATORY S. Shotarova, S. Stoyanova-Petrova, S. Lyubomirov	1716
YOUNG PEOPLE'S REAL-TIME EXPERIENCES OF DIGITAL EDUCATION: "THE SCHOOL IS COMFORTABLE" "YEAH, RIGHT, LIKE GETTING SUFFOCATED IN A MASK ALL DAY IS COMFORTABLE" A. Nagy, A. Szabó, B. Böcskei, M. Fekete	1725
DISCOVERY LEARNING IN A LEXICOLOGY COURSE J. Bérešová	1726
TRAINING STUDENT TEACHERS TO ALIGN ORAL PERFORMANCES TO REFERENCE LEVELS J. Bérešová	1731
REALIZATION OF ADAPTIVE PROGRESS BARS IN MOODLE FOR ATTESTED COMPETENCIES AND QUALIFICATIONS FOR LEARNERS IN HIGHER EDUCATION INSTITUTIONS PSYCHOLOGY COURSES CONSIDERING QUALIFICATIONS-BASED LEARNING R. Srbecky, S. Colutto, S.A. Wetzel, M. Winterhagen, W. Fraas, J. Dettmers, M. Hemmje	1736
ACTIVE LEARNING METHODOLOGY APPLICATION IN ENGINEERING	1743
N. Romero-Anton, K. Martín-Escudero, Z. Azkorra-Larrinaga, M. Odriozola Maritorena, I. Gomez- Arriaran, A. Picallo-Perez	1743
ACCEPTANCE OF THE FLIPPED CLASSROOM BY ECONOMETRICS UNDERGRADUATE ECONOMICS STUDENTS M. Cladera	1749
MONITORING AND SUPPORT OF TOURISM PROGRAMMES IN POLYTECHNICS COLLEGES K. Ngwenya, X. Khalo	1754
USING AVIATION GAMING SOFTWARE TO ENHANCE ICAO PILOT TESTING M. Landry, L. Landryova	1763
THE ELIMINATION OF SCREEN INFERIORITY EFFECT ON SECOND AND THIRD GRADE READERS DURING COVID-19 S. Dotan, T. Katzir	1772
UNIVERSITY TEACHERS' COMPETENCE IN TEACHING SUBJECT DIDACTICS T. Krass, K. Uibu, E. Sikkal	1773
EXPERIENTIAL LEARNING ABOUT SUSTAINABLE DEVELOPMENT IN BUSINESS EDUCATION – COURSE DESIGN, EXPERIENCES, AND TRANSFERABILITY A. Spörk, A. Martinuzzi, S. Martinuzzi	1778
TIME LIMITS FOR ONLINE TESTS DURING THE ASSESSMENT OF STUDENTS LEARNING ENGLISH AS A FOREIGN LANGUAGE AT A TECHNICAL UNIVERSITY N. Antonenko	1779
QUALITATIVE ANALYSIS OF ESCAPE ROOM-BASED METHODOLOGY IN A MATHEMATICS COURSE J.S. Jeong, F. Yllana Prieto, A.I. Montero Izquierdo, D. González-Gómez	1785
UNSOLVED TASKS IN THE BEBRAS CHALLENGE FOR UPPER SECONDARY BLIND PUPILS M. Čujdíková, Ľ. Jašková	1791

UNPLUGGED AND MICRO:BIT ACTIVITY IN THE FUTURE CLASSROOM LAB TO EXAMINE PRE-SERVICE TEACHERS' AFFECTIVE DOMAIN IN MATHEMATICS COURSE	1798
J.S. Jeong, A.I. Montero Izquierdo, F. Yllana Prieto, D. González-Gómez	
INTERACTIVE LEARNING IN ENGINEERING EDUCATION BASED ON LMS AND LTI S. Shotarova, S. Stoyanova-Petrova	1803
STATISTICAL TECHNIQUES COURSE FOR UNDERGRADUATE PROGRAMS: AN EMERGENCY REMOTE TEACHING APPROACH A.R. Xambre, H. Alvelos	1811
CHILDREN'S ABILITY TO ORIENT THEMSELVES IN SPACE A. Sindelarova, S. Pechouckova	1818
ANALYSIS OF MOTIVATIONAL MEANS, METHODS AND FORMS OF TEACHING READING LITERACY OF PRIMARY SCHOOL PUPILS IN FINLAND M. Žišková, J. Miková, K. Barancová	1823
SOCIAL WORK CURRICULAR DESIGN AND THE INTERNATIONAL STANDARDS FOR THE PROFESSION: ALIGNMENT AND MISALIGNMENT IN PORTUGAL E. Justino, D. Dias	1824
ACCESSIBILITY STATUS OF E-COMMERCE SITES OF FINNISH UNIVERSITIES OF APPLIED SCIENCES J. Lahti	1828
PACKAGING DESIGN AS A CONTAINER OF COMPLEXITY: DEFINITION OF PRACTICAL FRAMEWORK FOR A CO-DESIGN PROCESS S. Palmieri, M. Bisson, R. Palomba, D. Vitale	1834
INDUSTRIAL ENGINEERING AND MANAGEMENT: WHAT AND HOW TO TEACH AND LEARN IN AN INTRODUCTORY COURSE H. Alvelos, A.R. Xambre, M.J. Rosa	1843
HOW PANDEMIC-DRIVEN REMOTE LEARNING HELPED EXPAND STUDENT LEARNING WHEN COURSES SHIFTED FROM IN-PERSON DELIVERY TO VIRTUAL DELIVERY H. Boersma	1849
THE IMPORTANT THING IS NOT WINNING BUT TAKING PART: UNDERSTANDING SPECIAL OLYMPICS EXPERIENCES FROM THE ATHLETES' PERSPECTIVE C. Mihajlovic	1850
TRAINING AUTHENTIC LEADERSHIP IN UNCERTAIN TIMES AT THE POSTGRADUATE LEVEL E.O. Cardoso Espinosa, M.J. Blas Rivera, E.D. Nava Meléndez	1855
AGRIPOLIS: LIVING THE HIGH LIFE R. Davids	1860
UNDERSTANDING BUSINESS FACULTY ADOPTION OF TECHNOLOGY, ITS COMPLEXITIES AND NUANCES M. Conyette	1868
MENTORING OF UNIVERSITY STUDENTS. CASE OF AN ENTREPRENEUR WHO APPLIES THE HYPERSPECTRAL TECHNIQUE TO FOOD SAFETY O. Cáceres-Moreno, M.D. La Rubia, C. Rus-Casas	1878
TRAINING OF SPECIAL EDUCATION TEACHERS: PROBLEMS AND SOLUTIONS IN LATVIA J. Dzerviniks, M. Rozenfelde	1885
THE NATIONAL CYBER ETHICS MODULES: AN APPROACH FOR TEACHING CYBER SAFETY TO K12 STUDENTS M. Ahmad, N. Razali	1896
PERSPECTIVES OF TURKISH EARLY CHILDHOOD ADMINISTRATORS ABOUT INCLUSION S. Rakap	1901
THEORY AND RESEARCH-BASED GUIDELINES FOR DESIGNING AND DEVELOPING EFFECTIVE VIDEO GAMES R. Almazyad	1902
IMPACT OF A TRAINING AND COACHING TO SUPPORT TURKISH MOTHERS' IMPLEMENTATION OF MILIEU TEACHING STRATEGIES S. Rakap, S. Balikci, E. Gulboy, S. Kalkan	1906
VISUALIZING AND MODELING ONLINE LEARNING BEHAVIORS BY RETENTIONEERING $K.\ Li$	1907

TRAINING PROSPECTIVE ELEMENTARY SCHOOLS TEACHERS IN PLANNING, CONDUCTING AND EVALUATING PROBLEM-BASED AND EXPERIENTIAL LESSONS IN INFORMATICS, SCIENCE AND TECHNOLOGY N. Bauer, M. Haack, D.M. Jozefiak, J. Mägdefrau	1917
DEVELOPMENT OF STUDENTS' WELL-BEING IN THE CONTEXT OF PHYSICAL ACTIVITIES J. Dzerviniks, V. Dzervinika, E. Dzervinika	1928
IS ONLINE LANGUAGE EDUCATION AT A CROSSROADS OR IN DIRE STRAITS? M. Šikolová, L. Koláčková, M. Veselá	1936
WARGAMING – BASED LEARNING TO DEVELOP THE COMPETENCIES OF FUTURE MILITARY OFFICERS G. Dudzevičiūtė	1940
SOME DIFFICULTIES MET BY STUDENTS IN COMPUTING THE ENTROPY BALANCE IN SOME THERMODYNAMIC PROCESSES S. Bailleux, A. Anakkar, M.L. Lahlaouti	1941
VET TEACHERS' PERCEPTIONS OF THEIR PRACTICES BEFORE AND AFTER COVID- 19 F. Moreira, D. Oliveira, A. Oliveira	1951
ENHANCING TOOLS FOR STUDYING ORNAMENTAL PLANTS: VIDEOGAME AND INTERACTIVE MAP	1958
A. Hernando Gallego, M. Gómez García, M. Legrand, J. Velázquez Saornil, C. Iglesias Merchan, L.G. García-Montero	
IMPROVEMENT IN THE AREA OF STATISTICS C. Chiralt, J. Picazo	1965
WHAT IS THE BEST EDUCATIONAL METHODOLOGY TO TEACH FIRST AID IN HIGH SCHOOL? M.T. Pascual-Galiano, L. Vega-Ramírez, M.Á. Ñíguez-García, A. Vidaci, M.A. Ávalos-Ramos	1973
A QUALITATIVE INTERVIEW STUDY ON THE DEVELOPMENT OF STUDENTS' SOCIAL-EMOTIONAL SKILLS DURING COVID19 B. Kopp, A. Lueg	1977
GEOMORPHOLOGY TOPOGRAPHIC INTERPRETATION C. Carbonell-Carrera	1981
PROJECT FOR SECONDARY-SCHOOL STUDENTS: ENERGY USED TO OBTAIN WATER M. Gómez, M.D. Grau, E. Xandri	1985
TRANSFORMATIVE IMPLICATIONS AND EVIDENCE-BASED PRINCIPLES FOR CREATING CONTENT FOR MATHEMATICS LEARNING IN THE METAVERSE $X.\ Li$	1994
TOWARDS DIALOGIC LEARNING THROUGH OPEN APPROACHES AND PODCASTING: SOUTH AFRICAN EDUCATORS N. Agherdien, R. Pillay	2004
ACADEMIC INTEGRITY: WHOSE WRITING IS IT? CAN WE STOP THE PLAGIARISM PANDEMIC? H. Hope, J. Lewis	2005
DIGITAL EDUCATION CONTEXTS AND LEARNING ANALYTICS TO MEASURE THE LEARNING EFFICACY M.J. Sousa, H. Belchior-Rocha	2006
TECHNOLOGICAL INTERFACE COMPONENTS THAT SUPPORT ACCELERATED LEARNING IN THE ACQUISITION OF FOREIGN LANGUAGE VOCABULARY D. Passig, G. Eshel Kedmi, A. Aharoni	2014
EXAMINATION OF OPINIONS REGARDING RISKY BEHAVIORS IN HIGH SCHOOL STUDENTS S.S. Aydoğan, S. Seven, M. Erdoğan, N. Altınmakas, F. Nayır	2019
ARE UNIVERSITY STUDENTS MORE SATISFIED WITH COMMUNICATION AFTER USING A MOBILE APPLICATION? M. Lara, J. Flores, S. van Der Meer, I. Bezemer	2020
SURVEY-BASED APPROACH TO PREDICT EARLY DROPOUT IN ENGINEERING	2021
DEGREES J.C. Cuevas-Martínez, P.J. Reche-Lopez, A.J. Yuste-Delgado, R. Viciana-Abad, F. Rivas-Peña, J.M. Perez-Lovenzo	

KNOWLEDGE AND SATISFACTION WITH THE APPLICATION OF SELF- EVALUATION AND CO-EVALUATION IN UNIVERSITY STUDIES A. Penelas-Leguía, P. Cuesta-Valiño, J.M. López-Sanz, E. Nuñez-Barriopedro, C. Loranca-Valle	2030
NON-STRESSFUL OBSERVATION: MYTH OR REALITY?	2036
T. Iusupova	2000
USING COMPUTER ALGEBRA SYSTEMS IN TEACHING AND ASSESSMENT IN CALCULUS P. Carvalho, L. Descalço, H.F. Gonçalves	2041
ATTENTION SPAN IN CALCULUS CLASSES AND YOGA BREAKS P. Carvalho, L. Descalço, H.F. Gonçalves	2049
ECONOMICS IN PRIMARY SCHOOLS – AN EMPIRICAL EXPERIMENT FROM HUNGARY J. Nagy	2056
IS IT POSSIBLE TO MAKE LEARNING ENJOYABLE AND MEANINGFUL FOR UNIVERSITY STUDENTS THROUGH GAMIFICATION? M.J. López-Serrano, A. Batlles-Delafuente, F.J. Castillo-Díaz, J. Torres-Téllez	2057
NEW ACTIVE METHODOLOGIES TO IMPROVE ACADEMIC PERFORMANCE IN THE UNIVERSITY CONTEXT: THE WOOCLAP EXPERIENCE A. Carrasco-Hernández, G. Lozano-Reina, M.E. Lucas-Pérez, M.F. Madrid-Garre, G. Sánchez-Marín	2062
ARE YOU OFF TO A GOOD START? THE "JOURNAL OF THE DAY" EXPERIENCE P. Morando, M.L. Spreafico, G. Turconi	2063
STRUCTURED READING COURSE: THE IMPACT OF READINESS ASSURANCE ASSIGNMENTS G. Oskarsson	2072
KNOWLEDGE AND TEACHING EXPERIMENTS FOR THE FUTURE CREATED IN THE COVID CRISIS G. Oskarsson, E. Svansson	2073
MATH INHABITS THE MUSEUM P. Morando, M.L. Spreafico	2074
MID-TERM PSYCHOMETRIC OUTCOMES OF HOP!: A FRENCH REEMPLOYMENT PROGRAM	2082
M.P. Celume, M. Erouart, C. Guignard	2000
A PAPER CALCULATOR: HOW TO FOLD MULTIPLICATIONS AND THEIR PROPERTIES M.L. Spreafico	2090
INTERNAL MARKETING IN INTERNATIONAL AND NATIONAL INTERNSHIPS: COMPARISON OF STUDENTS' PERSPECTIVES AND EXPECTATIONS T. Pataco, M. Oliveira	2097
ADAPTIVE FLIPPED CLASSROOM IMPROVES COMPREHENSION AND ASSOCIATED LEARNING OF A BIOMEDICAL RESEARCH TALK IN CELL BIOLOGY L. Del Campo Milán, A. García-Culebras, C. Bravo-Llatas, E. Lozano Pérez, T. Angulo Carrere, M.P. Álvarez Vázquez	2105
EVALUATING LEADERSHIP COMPETENCIES AMONG UNDERGRADUATE MANAGEMENT STUDENTS AT LMSU A. Mirakyan, S. Shchelokova, I. Suslova	2114
LECTURERS' AND CLIENTS' EXPERIENCES OF USING LEARNING BY DEVELOPING ACTION MODEL WITH PROJECT-BASED COMPUTING SCIENCE STUDY MODULES IN FINLAND AND THE UK T. Lintilä	2121
A SYNTHETIC LITERATURE REVIEW ON ANALYTICS TO SUPPORT CURRICULUM IMPROVEMENT IN HIGHER EDUCATION X.V. Li, M.B. Rosson, B. Hellar	2130
INVESTIGATING INTENTIONALITY WHEN LEARNING TO TEACH WITH DATA VISUALIZATIONS A. Mamolo, S. Rodney, N. Ibeh	2144
VIRTUAL TOURS USING 360° PHOTOS AND 3D MODELS C. Carbonell-Carrera, J.L. Saorin	2145
THE GEOGEBRA BOOK: A TOOL TO ENGAGE STUDENTS M.P. de Sousa Olineira, A. Hall, N.R.O. Bastos, D. Seabra, E. Assunção, M.I. Barroso	2149

FLIPPED CLASSROOM METHODOLOGY AND CASE STUDY LEARNING COMPARED TO INSTRUCTIONAL TEACHING: A STUDENT EXPERIENCE EVALUATION A. Triantafyllidis, M. Deloglou, K. Leftheriotis, G. Sainis, G. Vranopoulos	2158
INTEGRAL MEDICINE WITH THE BUENAVENTURA FAMILY M. Alonso-Chamorro	2166
STUDENT PERFORMANCE IN MODERN PHYSICS IN AN ACTIVE, PARTIALLY-FLIPPED CLASSROOM S. Yarbrough, R. Lopez	2173
INTERACTIVE TOOLS FOR ENGINEERING MATHEMATICS LEARNING E. Salazar Guerrero, E. Ramos, I. Monsivais, G. Sánchez	2177
INCLUSIVE EDUCATION OF STUDENTS WITH VISUAL IMPAIRMENT THROUGH UNIVERSAL DESIGN FOR LEARNING: LITERATURE REVIEW S. Ališauskienė, I. Ungeitytė	2181
HOLISTIC LEARNER DEVELOPMENT IN ENGINEERING EDUCATION M. El-Sayed	2190
MERGING GAMIFICATION ELEMENTS WITH A TOUCHSCREEN-BASED APPLICATION TO SUPPORT CHILDREN'S LEARNING OF THE ARABIC LETTER FORMS A. Al Hejaili, P. Newbury	2199
GENDER DIFFERENCES IN THE SELF-PERCEPTION OF ANXIETY IN INITIAL ASSESSMENT OF ACROBATIC SKILLS M.A. Ávalos-Ramos, A. Vidaci, M.T. Pascual-Galiano, L. Vega-Ramírez	2208
MODULAR APPROACH TO TEACHING SOME COMPUTER SCIENCE CONCEPTS S. Ramnath, B. Dathan	2212
THE ADVENT OF WORK-BASED SKILLS AND DISPOSITIONS AS MICROCREDENTIALS FOR DUAL STUDENTS; A DETAILED LOOK AT THE PRACTICAL PHASE K. Berkling, J. Schaupp, M. Semmler, S. Birkhold, A. Barth, L. Floruß	2220
PHD-SUPERVISORS EXPERIENCES DURING THE COVID-19 PANDEMIC – A CASE STUDY R. Krumsvik, L. Jones	2230
PROMOTING SOCIAL INCLUSION IN SPORTING CONTEXTS: THE DIFFERENT ABILITIES MOTOR PROGRAM G. Ferrara, F. La Versa	2241
COMPETITIONS AS REQUIRED ASSESSMENTS IN CYBER SECURITY EDUCATION C. Anton	2252
MOTIVATIONAL FACTORS FOR INCREASING DIGITAL COMPETENCE AND INFORMATION LITERACY OF UNIVERSITY STUDENTS V. Bolek, A. Romanová	2253
BREAKING BARRIERS: FOSTERING INCLUSION AND ACCESSIBILITY IN EDUCATION AND TOURISM FOR DISABLED STUDENTS P. Escudeiro, M. Campos	2262
IREAD: INTERPRETABLE RECOGNITION AND AUTOMATED DECONSTRUCTION OF SEMANTICS IN WRITTEN ENGLISH A. Satish, A. Bhamare, D. Hoskote, V. Raj, G. Srinivasa	2266
THE SELF-EFFICACY OF PRE-SERVICE TEACHERS: LESSONS LEARNED DURING THE COVID-19 PANDEMIC IN THE NORTHWEST OF ENGLAND R. Tynan, A. Mallaburn	2276
"LEARNING WITH THE SCHOOL LIBRARY": THE CASE OF THE WEIWE(R)BE PROGRAMME IN THE DIGITAL AND VIRTUAL SCHOOL ECOSYSTEM T.M. Loureiro Cardoso, E. Ribeiro Mota, A.C. Cruz, F. Pestana	2282
COMBINING LEARNING MANAGEMENT SYSTEM AND COURSE MANAGEMENT SYSTEM IN ACCOUNTING COURSES IN ONLINE BACHELOR OF SCIENCE IN ACCOUNTING PROGRAM C. Fajardo	2288
ENHANCING SCIENCE LEARNING THROUGH EXPERIMENTAL PRACTICE: A GUIDE FROM ITALIAN TEACHERS 1. De Angelis, C. Meneghini, S. Mobilio, A. Brancaccio, A. Conte, C. Mancinelli, E. Borgi, P. De Paolis	2289
SCAFFOLDING COMPUTATIONAL THINKING THROUGH PROBLEM-BASED LEARNING AND PROJECT-BASED LEARNING: USING PROBLEM TO POWER LEARNING S.L. Ong, J. Ling, W.L. Chang	2294

MUSIC MYSTERY: LEARNING MUSIC THEORY THROUGH ESCAPE ROOM PUZZLES K.Y.T. Lim, K.M. Truong, Y. Wu	2303
UTILISING DEEP LEARNING IN SINGAPORE PRIMARY SCHOOL MATHEMATICAL WORD PROBLEMS J. Zeng, J.D. Tan, K.Y.T. Lim	2314
DEVELOPING AN INDICATOR FOR THE STANDARD OF SELF-INSTRUCTIONAL MATERIALS (SIM) IN OPEN AND DISTANCE LEARNING ENVIRONMENTS: AN EXPLORATORY STUDY ON THE RELATIONSHIP BETWEEN COGNITIVE LOAD TYPES AND TASK SETS Z. Hamidon, M.L. Abdullah, H.K. A/P Dharam Singh	2321
MICROWORLDS AS A FIRST STEP IN TEACHING PROGRAMMING V. Gaballová	2329
ICT IN CHILDREN'S COMPULSORY PRE-SCHOOL EDUCATION V. Gabal'ová, A. Lengyelová, H.I. Vrtoch Oppenberger, V. Stoffová	2334
THE USE OF ROBOTICS IN PRESCHOOL EDUCATION K. Stefanova, G. Atanasova	2339
MEASURING EFFECTIVENESS OF PROMPT-SPECIFIC WRITING GUIDANCE FOR STUDENTS OF LOWER AND MIDDLE GRADES D. Dutta, S. Dixit, P. Gaurangi	2348
THE BENEFITS OF THE EARLY INTRODUCTION OF SEO TO THE NEW DIGITAL GENERATION I. Stefanov, G. Atanasova	2357
ON THE COURSE OF DEVELOPMENT OF STRESS COPING COMPETENCE AMONG PROSPECTIVE NURSES AND ITS SUPPORTING FACTORS - WHAT ROLE DO TRAINING CONDITIONS PLAY? J. Warwas, P. Krebs, S. Seeber, U. Weyland, E. Wittmann	2364
RESTRUCTURING INTERDISCIPLINARY TEACHING MATERIALS: CROSSING OVER FROM NON-STEM TO STEM W.C. Chen	2365
TEACHER REQUIREMENTS FOR A WEBSITE PROVIDING EDUCATIONAL MATERIAL ON INLAND WATERWAY TRANSPORT: EVALUATION USING A USER-CENTERED DESIGN PROCESS A. Haller, S. Dopler, S. Dopler, L.M. Putz-Egger	2366
UTILIZING ACTIVE LEARNING TECHNIQUES TO LESSEN PASSIVITY IN DISTANCE LEARNING DUE TO THE COVID-19 PANDEMIC A. Salem	2372
SOFT SKILLS: EXPERIENCES FROM AN INTERDISCIPLINARY PHD PROGRAM IN INFORMATION SYSTEMS AND WORK INTEGRATED LEARNING C. Gjellebæk, A. Fuentes Martinez	2381
WHAT IS THE RELATIONSHIP BETWEEN SELF-CONCEPT AND SCHOOL PERFORMANCE IN PRIMARY SCHOOL? R. Barroso, D. Dias	2391
LEARNING THROUGH EMOTION: LEARNING BY COMMUNICATING IN EARTH SCIENCES P. Cabello, A. Sáez, M. Guinau, M. Garcés, L. Cabrera, M. López-Blanco, G. Lastras, O. Ferrer, O. Gratacós, X. Delclòs, C. Martín-Closas, J. Sanjuan, I. Cacho, J. Palau, M. Rosell, A. Soler, C. Torrento, P. Piña, P. Granado	2400
LEARNING BY COMMUNICATING IN EARTH SCIENCES: AUDIOVISUAL NOTES IN THE FIELD AND AUDIOVISUAL PRESENTATIONS P. Cabello, A. Sáez, M. Guinau, M. Garcés, L. Cabrera, X. Delclòs, M. López-Blanco, O. Ferrer, O. Gratacós, G. Lastras	2407
DISTANCE LEARNING DURING THE LOCKDOWN: METHODOLOGIES EMPLOYED AND TEACHERS' THOUGHTS G. Cioci	2415
SERVICE LEARNING AND CIRCULAR ECONOMY: TYRE RECOVERY ACTIVITY IN STRATEGIC MANAGEMENT COURSE R. Marcos, D. Ferrández, A. Zaragoza, C. Morón	2426
RESEARCH-BASED LEARNING PROPOSAL FOR THE INTEGRATION OF ELT TEXTILE FIBRE AND RECYCLED STEEL FIBRES IN BUILDING CONSTRUCTION D. Ferrández, M. Alvarez, A. Zaragoza, C. Morón	2433

THE SCHOOL ENGAGEMENT OF SLOVAK ADOLESCENTS IN RELATION TO THEIR SELF-CONCEPT L. Ďuricová, B. Žitniaková Gurgová	2439
METAVERSE, AUGMENTED REALITY, VIRTUAL REALITY, ARTIFICIAL INTELLIGENCE, GAMING AND NFT: PREPARING MARKETING STUDENTS FOR TODAY AND TOMORROW'S NEW DIGITAL REALITIES N. Sarrasin, M. Zumstein, A. Widmer	2445
LEARNING LANDSLIDE HAZARDS AT THE UNIVERSITY LEVEL BY COMBINING REAL CASE STUDIES, COLLABORATIVE WORK, AND INNOVATIVE TOOLS M. Guinau, P. Cabello, E. Playà	2455
PREDICTING GRADES ON AN EXAM THROUGH GAMIFICATION TECHNIQUES. TO WHAT EXTENT DOES THE PARTICIPATION ON A GAMIFICATION ACTIVITY IMPACT POSITIVELY ON THE MARK OBTAINED IN THE EXAM? G. Morales-Alonso, A. Urueña, R.E. González, A. Hidalgo	2463
DECREASING BOREDOM BY FLIPPING A CLASSROOM AT KING SAUD UNIVERSITY R. Almazyad	2469
GAME-BASED LEARNING TO ACCELERATE THE ENERGY TRANSITION THROUGH EDUCATIONAL ESCAPE ROOMS T. Ouariachi, M. Groote, A. Van Houwelingen	2475
RIGHT TO ONLINE EDUCATION FOR VILLAGE GIRLS IN INDIA R. Tripathi	2481
THE DEGREE TO WHICH STUDENTS OF ISLAMIC EDUCATION COURSES USE SOCIAL NETWORKS IN EDUCATION AND THE OBSTACLES TO THEIR USE M. Almashaleh	2487
DIGITAL LEARNING COMPETENCIES AMONG FEMALE STUDENTS OF THE LEARNING DISABILITIES DEPARTMENT AT THE ARAB OPEN UNIVERSITY-JORDAN L. Damrah	2496
IMPLEMENTATION OF PROBLEM-BASED LEARNING METHODOLOGY IN COMBINATION WITH COOPERATIVE LEARNING IN THE "MATERIALS SCIENCE" SUBJECT J. Gomez-Caturla, O. Fenollar, R. Tejada-Oliveros, D. Lascano, D. Garcia-Garcia	2505
PUTTING THE PIECES TOGETHER: COMBINING INTERDEPENDENT SUPPORT STRUCTURES FOR FOSTERING DIGITAL COMPETENCIES OF PRE-SERVICE TEACHERS IN A PROJECT-BASED APPROACH A. Aumann, L. Heiberger, C. Schmidt, S. Schnebel, H. Weitzel	2510
IMPROVING SUSTAINABLE MOBILITY, SPATIAL-DATA AND CORE SKILLS THROUGH A SERVICE-LEARNING PROJECT E. Ortega, B. Martín, M.E. López-Lambas, C. Jorquera, S. González, C. Iglesias Merchan	2517
THE IMPACT OF NURSING MODELS IN NURSE EDUCATION U. Kõrgemaa, K. Puusepp	2525
EXPERIENCES IN EXTERNAL CURRICULAR INTERNSHIPS IN THE DEGREE OF FOOD SCIENCE AND TECHNOLOGY M.D. Rivero Perez, M. Cavia-Saiz, G. Gerardi, M. Ortega-Heras, I. Gómez, P. Muñiz	2531
TEAM EFFECTIVENESS IN STUDENTS' TEAM PROJECT L. Pikl, N. Posarić	2539
EXPERIENCES IN INNOVATIVE TRAINING TOOLS AT THE SERVICE OF UNIVERSITY LEARNING G. Gerardi, M. Cavia-Saiz, M.D. Rivero Perez, M. Ortega-Heras, I. Gómez, M.L. González-Sanjosé, P. Muñiz	2545
PARENTAL BACKGROUND AND CHILDREN'S VIEW OF CIVIC SCIENCE EDUCATION – NARROWING THE EDUCATION GAP BY IDEALISM? S.B. Linek, A. Schmidt	2550
PROFESSIONAL DEVELOPMENT AND CREATING CHANGE OF TEACHING BY TAKING PART IN A COURSE IN DIGITAL PEDAGOGY AND DIDACTICS O.M. Lindgaard	2559
EDUCATION FOR SUSTAINABLE DEVELOPMENT (ESD) IN PRIMARY SCHOOL – AN EXAMPLE AND INVESTIGATION ON HOW PROSPECTIVE PRIMARY SCHOOL TEACHERS CAN DEAL WITH THE EDUCATIONAL CONCEPT OF ESD M. Gröger, A. Dorn	2568

THE ROLE OF E-LEARNING SUPPORT CENTERS IN MOBILE LEARNING AND THE DIGITAL TRANSFORMATION V. Kasapidis, I.E. Lasica, D. Spanos, S. Pitsikalis, A. Kostas, A. Sofos, C. Vitsilaki	2574
SYSTEM ANALYSIS OF A MOTORCYCLE SIMULATOR FOR RESEARCH AND EDUCATION PURPOSES V. Mašek, R. Čermák, D. Fait	2584
A SERVICE-LEARNING EXPERIENCE FOR FIGHTING FAKE NEWS ABOUT FOOD AND NUTRITION M.C. Sánchez Mata, M. Cámara, M.C. Matallana, M.L. Pérez Rodríguez, V. Fernández-Ruiz, P. Morales, P. García-Herrera, E. Arranz, S. Fernández-Tomé, R.M. Cámara, M. Ciudad-Mulero, L. Domínguez, E.N. Vega, C. Tamayo-Vives, L. González-Zamorano	2592
PODCAST AS E-LEARNING METHODOLOGY IN FOOD SCIENCE AND NUTRITION AT UNIVERSITY LEVEL R.M. Cámara, M. Cámara, M.C. Matallana, M.C. Sánchez-Mata, V. Fernández-Ruiz, P. Morales, P. García-Herrera, E. Arranz, S. Fernández-Tomé, M. Ciudad-Mulero, L. Domínguez, E.N. Vega, C. Tamayo-Vives, T. Jaramillo	2598
EMPLOYMENT OF UNIVERSITY GRADUATES IN THE SELECTED SERVICE SECTOR IN THE SLOVAK REPUBLIC M. Strenitzerova, T. Corejova	2603
PILOT STUDY TO ENHANCE THE CONTENT VALIDITY OF HISTORY TAKING OSCE FOR THE SECOND-YEAR MEDICAL STUDENT Q.B. Le, T.M.H. Nguyen, H. Ho	2611
TEAM-BUILDING QUIZ ACTIVITY BASED ON SUSTAINABLE DEVELOPMENT GOALS FOR THE ENVIRONMENTAL SCIENCE CLASSROOM E. Quintano, R. Esteban	2617
SOCIAL WORK THROUGH THE AGES: THE CASE STUDY OF PORTUGUESE HIGHER EDUCATION D. Dias, E. Justino	2623
HELPING FIRST YEAR COLLEGE STUDENTS TRANSITION TO UNIVERSITY LIFE BY STUDYING THE SCIENCE OF HAPPINESS E. Pappamihiel	2629
MULTILATERAL TRAINING AS AN INNOVATIVE TEACHING METHOD TO SUPPORT THE RESILIENCE IN PEOPLE WITH DISABILITIES G. Ferrara, F. La Versa, G. Battaglia	2634
VIRTUAL REALITY IN PSYCHOTHERAPY TRAINING: SHIFT TOWARDS MODERN TRAINING ENVIRONMENTS K. Varšová, V. Juřík, O. Janoušek	2641
A TRAINING PATH FOR UNIVERSITY TUTORS. THE EXPERIENCE OF THE UNIVERSITY OF PADUA (ITALY) R. Bonelli, A. Bonin, L. Da Re	2651
LOW-COST CHIP PROGRAMMING FOR TEACHING AND LEARNING DIGITAL SKILLS N.C. Cruz, J.F. Sanjuan Estrada, M. Lupión, E.M. Garzón, P.M. Ortigosa	2662
A PILOT STUDY OF VIETNAMESE MEDICAL STUDENTS' SELF-DIRECTED SIMULATION ACTIVITIES WITH CONSTRUCTIVE FEEDBACK N.L. Ho, H. Ho	2672
ANALYZING THE IMPACT OF AI-ASSISTED DIAGNOSIS ON MEDICAL STUDENTS' UNDERSTANDING OF NEUROLOGICAL DISORDERS H. Riasi, F. Nakhaei, A. Rajabpour Sanati, S.H. Sepideh	2673
THE INTERNSHIP E-DIARY OF FUTURE TEACHERS: A LEARNING TOOL FOR BECOMING A PROFESSIONAL I. Tandzegolskiene-Bielaglove, N. Ciuciulkiene, A. Lapeniene	2674
USING STANDARDIZED PATIENTS TO ASSESS COMMUNICATION SKILLS OF MEDICAL STUDENT YEAR 2 IN A CLINICAL SIMULATION ENVIRONMENT IN VIETNAM N.L. Ho, T.M.H. Nguyen, H. Ho	2682
DEVELOPING AN AI-BASED PLATFORM FOR PERSONALIZED LEARNING IN NEUROLOGY EDUCATION FOR MEDICAL STUDENTS A. Rajabpour Sanati, H. Riasi, F. Nakhaei, S.H. Sepideh	2686
VIDEO REPORTING FOR THE DEVELOPMENT OF MEDIA LITERACY IN TEACHER EDUCATION N. Ciuciulkiene, I. Tandzegolskiene-Bielaglove	2687

ARTIFICIAL INTELLIGENCE APPLIED TO TEACHING J.F. Sanjuan Estrada, N.C. Cruz, M. Lupión, E.M. Garzón, P.M. Ortigosa	2692
PROMOTING ACTIVE CITIZENSHIP THROUGH CIVIC EDUCATION AND ACTIVE ONLINE PARTICIPATION OF YOUTH ROLE MODELS: THE CASE OF ACTION PROJECT S. Tagmat, T. Arsova-Netzelmann, K. Aue	2702
TEAMWORK USING COLAB NOTEBOOKS IN THE CLOUD J.F. Sanjuan Estrada, N.C. Cruz, M. Lupión, E.M. Garzón, P.M. Ortigosa	2710
A VIRTUAL REALITY TRAINING PLATFORM FOR CBRN OPERATORS IN A DECONTAMINATION PROCEDURE F. De Lorenzis, M. Nadalin, F. Scarrone, M. Migliorini, F. Lamberti	2719
DESIGN OF THE MASTER DEGREE IN HUMAN NUTRITION BLOG (UNIVERSITY OF GRANADA) AS A VIRTUAL TOOL FOR ACTIVE LEARNING AND KNOWLEDGE TRANSFER PROMOTION T. Nestares, R. Martín-Masot, J.L. Quiles, M. López-Frías, V. Aparicio, J. Mora, F.J. Amaro-Gahete	2728
TAKE A LOOK AT MODERN PHYSICS: VIRTUAL REALITY FOR SCHOOLS TO EXPLORE PARTICLE PHYSICS A. Budano, I. De Angelis, A. Postiglione, R. Antonietti, C. Martellini, D. Tagnani	2733
TEACHING QUALITY ASSURANCE MODEL D. Zhukova, K. Tishkina	2738
ON MACHINE LEARNING SUPPORTED CURRICULUM DESIGN AND DEVELOPMENT N. Bijedić, D. Gašpar, A. Joldić	2739
UNDERSTANDING OF WORKPLACE SUPERVISION IN VOCATIONAL AND HIGHER EDUCATION. THE CASE OF HOSPITALITY STUDIES A. Roosipõld, M. Kurvits, K. Loogma	2744
ORGANISATION OF INCLUSIVE LEARNING ENVIRONMENT: CASES OF THE VISUALLY IMPAIRED I. Dansevičiūtė, A. Lapėnienė	2750
DOODLING AND ALGORITHMICS P.R. Osztián, Z. Kátai, E. Osztián	2757
EXAMINING THE STUDENTS' STATISTICAL LITERACY CONCERNING THE REPRESENTATION AND ANALYSIS OF THE DATA S.E. Elma, M. Işıksal-Bostan	2767
TAILORING A UNIVERSITY EFL COURSE: TEACHING METHODS AND STUDENTS' PERSPECTIVES A. Vlasova	2774
DIGITAL SKILLS IN AIR TRANSPORT F. Pérez Moreno, R.M. Arnaldo Valdés, S.E. Zaharia, R. Delgado-Aguilera Jurado, V.F. Gómez Comendador, A.P. Pavel	2781
THE IMPORTANCE OF ECOLOGY FIELDWORK IN ENGLISH SECONDARY SCHOOL CURRICULA R. Tynan	2789
HOW AND WHY DOES THE DEMAND OF AN EXAM QUESTION CHANGE IF WE MANIPULATE IT SO IT CAN BE AUTO-MARKED? C. Green	2798
STUDENT LEARNING EXPERIENCE DURING THE COVID-19 PANDEMIC – IMPLICATIONS FOR LEARNING DESIGN O. Lungu, D. Zhang	2799
STUDENT AND INSTRUCTOR VIEWS OF MACHINE TRANSLATION IN TRANSNATIONAL HIGHER EDUCATION M. High, A. McIntosh, S. Li, Y. Ji	2808
FRIENDSHIPS ON DEMAND? THE USE OF SOCIAL MEDIA BY MIDDLE SCHOOL YOUNGSTERS IN MEXICO CITY P. Baptista-Lucio, T. Nicolás-Gavilán	2809
PROBLEMS AND POSSIBILITIES WITH ONLINE EXAMINATION PROCTORING: STATE OF THE RESEARCH D. Woldeab, T. Brothen	2816
MAKE LEARNING FUN: IMMERSIVE LEARNING ENVIRONMENT FOR THE TRAINING OF EDUCATORS SPECIALIZED IN LEARNING DISORDERS C. Gaggioli, S. Casale, M. Ranieri	2817

AN ALL-IN-ONE WEB-BASED E-RADIO PLATFORM TO SUPPORT COLLEGE RADIO STATIONS	2827
N. Pylarinos, E. Papaioannou, C. Kaklamanis	
TECHNOLOGY ENHANCED STEM EDUCATION FOR CHILDREN WHO LIVE IN URBAN DISADVANTAGED AREAS: AN IRISH CASE STUDY A. Tamtam, G.M. Muntean, S. Sharma, C. Hava Muntean	2836
MULTIMEDIA-ENHANCED ENGLISH PRESENTATION TRAINING WITH THE AUDIENCE IN MIND W.C. Chen	2844
IMPROVING OPPORTUNITIES IN ENGINEERING THROUGH A DEGREE APPRENTICESHIP PROGRAMME IN NEW ZEALAND J. Mackay, H. Cadzow	2849
REVOLUTIONIZING SPATIAL LEARNING: UNLOCKING THE POTENTIAL OF 3D MODELING IN TEACHING 2D PLAN READING J. Kang, N. Sadeghi	2855
ENHANCING EMPATHIC UNDERSTANDING OF HOSTILE OTHERS IN PREPARATION OF PERSUASIVE PRESENTATION THROUGH ENACTING HOSTILE'S LIFE EPISODE H. Suzuki, H. Funaoi, Y. Kubota, T. Mochizuki, H. Kato	2861
THE LEARNING EXPERIENCE OF CHINESE POSTGRADUATE STUDENTS IN A LITHUANIAN UNIVERSITY: THE ROLE OF TEACHERS J. Lasauskiene	2870
RESEARCH ON THE SYMPTOMS OF CIVILIZATIONAL STRESS AMONG UNIVERSITY STUDENTS DURING THE COVID-19 PANDEMIC, THE WAR IN UKRAINE AND THE ONGOING ECONOMIC CRISIS IN THE EUROPEAN REGION V. Strnadová, P. Voborník, K. Provazníková	2878
DEVELOPMENT AND EVALUATION OF A MULTIMODAL DIDACTIC CONCEPT FOR TEACHING EMERGING TRENDS IN BUSINESS INFORMATICS A. Rottensteiner, C. Ploder, R. Bernsteiner, T. Dilger	2889
DEVELOPING INSIGHTFUL AND TECHNOLOGY ENHANCED INTERNSHIP IN DIGITAL MARKETING CONTEXT R. Ahlgren, H. Neuvonen	2894
TEACHING EMBODIMENT DESIGN RULES FOR 3D PRINTING THROUGH PROJECT-BASED LEARNING T. Sauer, M. Nutzmann, M. Voß, H. Bozkurt	2899
A CASE STUDY ON THE USE OF DIGITAL SIGNATURES AND THE RELEVANCE OF CERTIFYING ONLINE CONTENT FOR EDUCATION M. Marian, I. Borcoși, C.A. Borcosi, D. Popescu, A. Cusman, D. Ionică	2904
PREDICTIVE MODELING AND ANALYTICS OF EDUCATIONAL DATABASES D. Višnjić, M. Cerjan, D. Oreški	2914
SATISFACTION AND LEARNING AFTER THE APPLICATION OF STUDENT-CENTRED H5P ACTIVITIES C. López-Gutiérrez, A. Pérez	2922
DEVELOPING GLOBAL EMPLOYABILITY SKILLS VIA STUDENTS' COLLABORATIVE ONLINE INTERNATIONAL LEARNING (COIL) ACTIVITIES – A CASE STUDY OF FINLAND AND UK COLLABORATION TO SHARE BEST PRACTICE N. Ivarsson-Keng, M. Crossan	2923
KNOWLEDGE AND INNOVATION MANAGEMENT T. Limba, L. Lelešienė, S. Novogreckas, A. Kowalewska	2927
VALUES AND EMOTIONAL INTELLIGENCE IN PSYCHOLOGY STUDENTS: MANIFESTATION OF THE RELATION G. Kozhukhar, A. Belousova, E. Breus	2936
HIGH SCHOOL AND HIGHER EDUCATION STUDENTS' PERSPECTIVES ABOUT RELEVANT SKILLS FOR A SUCCESSFUL TRANSITION TO HIGHER EDUCATION M. Lara, J. Brouwer	2943
ASPECTS AND ROLES OF DIFFERENT PROGRAMING LANGUAGES AND THEIR USE IN STEM EDUCATION I. Srpak, L. Havaš, T. Horvat, E. Tomičić	2944
USING OF MACHINE LEARNING METHODS IN LABORATORY FOR THE RENEWABLE ENERGY SOURCES ON THE UNIVERSITY NORTH T. Horvat, L. Havaš, I. Srvak, V. Šac	2954

RETHINKING AND REDESIGNING TEACHING METHODS IN POST-PANDEMIC ENVIRONMENTS E. Dumić, E. Tomičić, D. Srpak	2962
ADAPTING UNIVERSITY CURRICULUM TO MEET THE DEMANDS OF THE DIGITAL MARKETING INDUSTRY R. Bílková, M. Kašparová	2970
IDENTIFYING THE COMPETENCIES OF BUSINESS STUDENTS TO CREATE EFFECTIVE MULTIMEDIA CONTENT BY USE OF ASSOCIATION RULES P. Petr, M. Kašparová, R. Bílková	2978
DEBATE AS AN ASSESSMENT TOOL IN HEALTHCARE ETHICS MODULE E. Naser	2987
DESIGN THINKING IN TEACHER TRAINING USING THE EXAMPLE OF MULTILINGUAL DIDACTICS N. Naugk, P. Kofahl	2991
IMPLEMENTATION OF THE CONSTRUCTIVE ALIGNMENT OF THE TEACHING PROGRAM AND AWARENESS OF THE ENVIRONMENT FOR LEARNING - ACESIQ PROJECT	2999
J.B. Giménez, L. Pastor, B. Solsona, R. Sánchez-Tovar, M. Izquierdo, J. Ribes, A. Robles, M.V. Ruano, A. Jiménez, J. Carrillo, N. Martí, R. Fernández, A. Cháfer, J. Badia, A. García, J.M. Peñarrocha, R. Jiménez, P. San Valero	
QUALITY ASSURANCE DURING THE PREPARATION AND PERFORMANCE OF LABORATORY EXERCISES J. Naā, A. Šinjori, J. Srpak, D. Srpak	3010
THE SOCIAL WORK STUDENTS' PERCEPTIONS OF FACE-TO-FACE LEARNING VS. ONLINE LEARNING IN WESTERN ROMANIA C. Feher, R. Ungureanu, M. Tomita	3020
ENGLISH PRONUNCIATION IN THE ERA OF GLOBALISATION: TO TEACH OR NOT TO TEACH? A. Malinka	3021
THE MOTIVATION OF VOCATIONAL TRAINING STUDENTS: A KEY ELEMENT IN THE PREVENTION OF DROPOUT C. Pinya-Medina, C. Vecina-Merchante, M.R. Ferreira Puertas, F. Salvà-Mut, A. García-De Olaya, E. Quintana-Murci, O. Álvarez-García, M.F. Oliver-Trobat, M.T. Adame-Obrador	3029
POSSIBLE DIFFICULTIES IN CHILD DEVELOPMENT BEFORE ENTERING KINDERGARTEN M. Popelková, E. Jurišová, L. Ráczová	3034
DEVELOPMENT AND EVALUATION OF PROFESSIONAL SKILLS ASSOCIATED WITH THE BASIC DOCUMENTS ON ENERGY SAVING AND HEALTH OF THE TECHNICAL BUILDING CODE ON THE SUBJECT "BASIC MECHANICAL INSTALLATIONS" L.M. López-Ochoa, J. Las-Heras-Casas, C. García-Lozano, L.M. López-González	3040
HOW CAN THE TEACHING E-MENTORING PROCESS MODEL HELP ADDRESS THE VARIOUS CHALLENGES HIGHER EDUCATION EDUCATORS FACE? O. Lahav, N. Katz	3046
STUDENTS' PERCEPTION OF TEACHING SKILLS IN EARLY CHILDHOOD EDUCATION C. Pinya-Medina, M.M. Oliver-Barceló, V. Morcillo-Loro, B. Cabrer-Servera, M.J. Ferrer-Ribot	3047
PARTICIPATION FROM THE BEGINNING: CONCEPTION, IMPLEMENTATION, OUTPUT AND EVALUATION OF A WORKSHOP FOR THE TARGET GROUP-SPECIFIC DEVELOPMENT OF A SERIOUS GAME M. Verhovnik-Heinze, J. Grünkorn	3054
HOW TO TRANSFER THE APPLIED RESEARCH DEVELOPED AT THE UNIVERSITY TO THE SCIENTIFIC COMMUNITY, RESPONSIBLE AUTHORITIES INVOLVED, UNIVERSITY STUDENTS AND SOCIETY D. Fernández-Nóvoa, O. García-Feal, J. González-Cao, X. Costoya, A.J.C. Crespo, M. de Castro, C.	3062
Ruiz Del Portal, M. Gómez-Gesteira THE ROLE OF EMOTIONAL INTELLIGENCE WITHIN THE ENTREPRENEURIAL INTENTION OF GRADUATE STUDENTS: INFORMING CURRICULUM IN PRIVATE HIGHER EDUCATION R. Swanzen, C. Botha	3070
TEACHER ETHICS TRAINING FOR LEARNERS WITH SPECIAL EDUCATIONAL NEEDS S. Bester	3080

EXPLORING THE IMPACT OF THE PANDEMIC ON INTEREST IN TEACHING AS A CAREER PATH T. Bidjerano	3081
DEVELOPMENT AND APPLICATION OF TUTORING SOLUTIONS USING CHATBOOT SOFTWARE IN MATHEMATICS TEACHING C. Lucas, J. Becker, J. Lourenço, J. Morais	3087
SMALL PRIVATE ONLINE COURSES AND THEIR IMPORTANCE IN THE EDUCATION OF SMALL AND MEDIUM ENTERPRISES E. Kicova, O. Ponisciakova, Z. Rosnerova	3092
WEB APPLICATIONS IN EDUCATION: CONTRIBUTIONS TO STATISTICAL LEARNING M.M. Pinheiro, V. Santos	3100
DO UNIVERSITY FACULTY MEMBERS OBSERVE UNDERGRADUATE STUDENTS' DISHONEST BEHAVIORS DURING EXAMS? N. Alcalde-Fradejas, M. Marzo-Navarro, M. Ramírez-Alesón	3106
COMPUTATIONAL THINKING AS AN EDUCATIONAL TREND IN EDUCATION: SOME REFLECTIONS M.M. Pinheiro, C. Albuquerque, F.T. Moreira, J.V. Torres, J.M. Sousa	3113
MOOC PLATFORMS: MODERN DISTANCE LEARNING J. Fabus, M. Garbarova, I. Kremenova, L. Vartiak	3122
HEALTHCARE CURRICULA IMPLEMENTING CHATBOTS - NEEDS AND ROLE S. Konstantinidis, M. Pears, S. Reppou, N. Stathakarou, E. Schiza, E. Gkougkoudi, K. Karlgren, C. Pattichis, P. Bamidis, H. Wharrad	3131
TEACHER PROFESSIONAL DEVELOPMENT PROGRAMMES: DIGITAL COMPETENCIES AND BEST PRACTICE FOR THE MODERN CLASSROOM O. Naidoo, G. Lautenbach	3132
INNOVATIVE APPROACHES IN LIFE-LONG LEARNING IN OFFSHORE RENEWABLE ENERGIES - FLORES PROJECT V. Diaz-Casas, L. Santiago Caamaño, S. Ferreño Gonzalez, A. Munin Doce, M. Miguez González	3143
ANALYSIS OF GENDER DIFFERENCES IN THE SELF-PERCEPTION OF ENGINEERING STUDENTS ABOUT GAMIFICATION AS AN EDUCATIONAL STRATEGY S. Bueno, M.D. La Rubia, J.M. Romero-García, L. Pérez-Villarejo, D. Eliche-Quesada, I. Romero-Pulido, S. Martínez-Martínez, A. Galán-Martín	3144
BEST PRACTICES AND CHALLENGES IN A DEVELOPMENT ASSISTANCE PROJECT: A CASE STUDY OF TECHNICAL VOCATIONAL EDUCATION TRAINING PROGRAM IN MARAWI, PHILIPPINES E. Amoloza	3151
SCIENCE AND SCIENTISTS FROM CHILDREN'S POINT OF VIEW G. D'Addezio, N. Besker	3159
EMDIGITAL INTO ACTION: AN OVERVIEW OF THE TOOL FOR ASSESSING THE DIGITAL ENTREPRENEURIAL COMPETENCES OF UNIVERSITY STUDENTS V. Simovic, M. Lazic, M. Safi, B. Alkhalifah, H. Sarhan	3165
ARE THE TRENDS OF EDUCATION AND TRAINING SYSTEMS IN EUROPEAN COUNTRIES IMPROVING AND CONVERGING? A. Camanho, D. Stumbriene, F. Barbosa, A. Jakaitiene	3172
SIMPLE REGISTER TRANSFER SIMULATOR FOR TEACHING COMPUTER ARCHITECTURE S. Kristofik, O. Urban	3173
A NEW MATHEMATICAL DEVELOPMENT TO MODEL AND ADJUST INDIVIDUAL LEARNING D. Crous Mayné, E. Calle Ortega, J. Batlle Grabulosa	3182
CO-CREATION OF A VIRTUAL INTERACTIVE TEACHING PACKAGE FOR AUDITORS OF HEALTHCARE PLACEMENTS – TOWARDS ASSURANCE OF QUALITY OF HEALTH CARE TRAINEESHIPS S. Konstantinidis, Z. Tilley, S. Ko, J. Henderson, S. Cunningham, P. Hodge, A. Stefanowicz-Kocol, A. Jankowicz-Szymanska, A. Grochowska, M. Kołpa, M. Lillo-Crespo, J. Riquelme Galindo, M.P. Catala Rodriguez, V. Höijer-Brear, M. Törne, S. Feliciano, A. Camilleri, I. Poultourtzidis, F. Papamalis, D. Spachos, N. Athanasopoulos, M. Nikolaidou, P. Bamidis, C. Hall	3189
THE DIGITAL SKILLS OF TEACHER TRAINERS AT A HIGHER EDUCATION INSTITUTION IN PORTUGAL D. Mascarenhas, U. Prates, M. Cruz	3196

THE TANGRAM STUDY FOR MIXED REALITY AFFORDANCE COMPARISON L. Sommaruga, N. Catenazzi, C. Locatelli	3205
EXPERIENCES, BARRIERS AND SUPPORTS IN DIGITAL ASSESSMENT ACROSS 4 EUROPEAN EDUCATIONAL INSTITUTIONS N. Biega, D. Kilanska, S. Hourican, D. Lehwaldt	3213
DESIGN, IMPLEMENTATION AND ASSESSMENT OF A REINFORCEMENT ACTIVITY IN A MACHINE DESIGN SUBJECT S. Gregori, J.M. Navarro, E.M. Sánchez-Orgaz	3214
INTERACTIVE PHYSICS DEMONSTRATIONS FOR ACTIVE LEARNING Y. Andrew, V. Tymms	3221
EXPERIENCES IN DESIGNING THRESHOLD MATH CONCEPTS QUIZ FOR A MATERIALS SCIENCE COURSE A.I. Pruna, F. Salas, A. Vicente Escuder, E.M. Sánchez-Orgaz, S. Martínez-Sanchis	3231
THE SIGNIFICANCE AND GOOD PRACTICE OF APPLYING CREATIVE LEARNING METHODS IN DEVELOPING THE COMPETENCIES OF MILITARY OFFICERS AND SHAPING MILITARY CREATIVITY V. Giedraitytė, R. Kazlauskaitė Markelienė	3237
IMPROVING THE ABILITY OF UNDERGRADUATE ENGINEERING AND SCIENCE STUDENTS TO PREPARE TECHNICAL REPORTS BY MEANS OF A PEER REVIEW METHODOLOGY J. García-Cañadas, F. Romero-Gavilán	3238
THE USE OF GEOGRAPHIC INFORMATION SYSTEMS WITH OPEN-SOURCE SOFTWARE FOR TEACHING LANDSCAPE PLANNING IN DISTANCE EDUCATION ENVIRONMENTS	3243
J. Velázquez Saornil, F. Herráez, A. Hernando Gallego, J.D. Araya, A. López MOOC PLATFORMS AS AN E-LEARNING PHENOMENON	3249
J. Fabus, M. Garbarova, I. Kremenova, L. Vartiak	2255
SMARTERP EDUCATIONAL: A VIRTUAL LABORATORY TO TRAIN SIMULTANEOUS INTERPRETING C. Arriaga Prieto, I. Villamayor, A. Serrano Leiva, A. Cascallana Rodriguez, S. Rodríguez, A. Pozo Huertas, A. Alonso González	3257
VIEW AND CHOICE - CARD GAME ON THE STATE OF MATTER WITH AUGMENTED REALITY S. Syskowski, J. Huwer	3265
MORE ACCESSIBLE AND INCLUSIVE LAB EXPERIMENTS THROUGH EASY READING AND PICTOGRAMS A. Herrero, C. Reguera, S. Sanllorente, S. Palmero, M.J. Arteaga, L. Aparicio, D.C. Castellano	3272
COMPILATION AND ANALYSIS OF PHYSICS AND CHEMISTRY SIMULATORS AND VIRTUAL LABORATORIES FOR SECONDARY EDUCATION J. Herrera Vergara, J. Cuadros Margarit, V. Serrano Molinero	3277
THE EFFECT OF REVIEWING FORMATIVE OSCE VIDEO RECORDINGS ON THE MEDICAL STUDENT'S PERFORMANCE IN SUMMATIVE OSCE ASSESSMENT T. Pham	3278
PEER MENTORING AND ACADEMIC ASSESSMENT P. Sposetti, G. Szpunar, MG. Rionero, E. Mattarelli, G. Vincenti, S. Gabrielli	3279
EMPLOYMENT RATE AND OCCUPATIONAL DESTINATION FOR UPV/EHU DOCTORS G. Barandika, E. Portillo, E. Simon, O. González-Abrisketa	3286
EVALUATING STUDENT INTERNSHIP EXPERIENCE AND ITS IMPACT ON CURRICULUM IMPROVEMENTS: A CASE STUDY FOR SOFTWARE ENGINEERING STUDENTS Y.G. Sahin, U. Celikkan	3292
OCCUPATIONAL DESTINATION OF GRADUATES IN CHEMISTRY AT THE UPV/EHU: WOMEN-FOCUSED EVOLUTION OVER THE LAST 10 YEARS G. Barandika	3301
SIMULATION-BASED EDUCATION: A SOLUTION TO CHALLENGES ENCOUNTERED WITH CLINICAL TEACHING IN NURSING AND MIDWIFERY EDUCATION IN MALAWI	3309
G. Mwalabu, A. Msosa, I. Tjoflåt, P. Mapulanga, M. Msiska	2210
JUPITER (AND ITS MOONS) IN A ROOM L. Giacomini, I. De Angelis, F. Aloisi, F. Duras	3310

THE QUANTUM FOR ALL PROJECT: RATIONALE AND OVERVIEW R. Lopez, K. Matsler	3311
FROM LEARNING PATHWAYS TO CAREER: BUILDING E-PORTFOLIOS IN HIGHER EDUCATION TO DEMONSTRATE SKILLS ACQUISITION FOR CAREER READINESS B.S. Todeschini, E. Sollberger	3317
EXPERIENTIAL LEARNING APPROACHES IN ENTREPRENEURSHIP AND ENTERPRISE EDUCATION A. Frost	3327
THE QUANTUM FOR ALL PROJECT: TEACHER PROFESSIONAL DEVELOPMENT MODEL K. Matsler, R. Lopez	3337
THE RELATIONSHIP BETWEEN SOCIO-DEMOGRAPHIC CHARACTERISTICS OF ADULT STUDENTS AND THEIR ENGAGEMENT IN ONLINE-EDUCATION A. Grishina	3346
TRANSVERSAL COMPETENCES: ACCOMPANIMENT AND PROFESSIONAL GUIDANCE IN THE SIGNALS AND SYSTEMS COURSE OF TELECOMMUNICATIONS ENGINEERING A. Carrión, L. Pereira, J.A. Álvarez, J. Gosálbez, R. Miralles	3352
TRAINING SOCIAL EDUCATORS' PROFILES IN HIGHER EDUCATION IN ITALY: LEARNING OBJECTIVES AND COMPETENCES M.G. Rionero	3361
SHARING EDUCATIONAL RESOURCES THROUGH A WEBSITE TO HELP RIDE THE WAVES OF THE PANDEMIC R. Fernández-Flores, B. Hernández-Morales	3366
ADVOCATING FOR EQUITABLE EDUCATION: TRANSFORMING INEQUITABLE EDUCATIONAL PRACTICES TO SERVE DIVERSE LEARNERS J. Collazo	3371
DEVELOPMENT OF SOCIAL RESPONSIBILITY AND OTHER 21ST CENTURY COMPETENCES OF UNIVERSITY STUDENTS VIA A SERVICE-LEARNING EDUCATIONAL STRATEGY D. Hanesová, L. Rovnanova, L. Fecková	3372
PARENTING STYLE, TEACHING STYLE AND TEACHER ENTHUSIASM: DO THESE VARIABLES PREDICT THE CHILDREN'S NEEDS FOR AUTONOMY, COMPETENCE AND RELATEDNESS? A. Mărincaş, S. Trif, N.A. Opre	3378
TECHNOLOGY-RELATED ETHICAL ISSUES IN FOREIGN LANGUAGE LEARNING I.A. Drobot	3386
MUSIC AND NEW TECHNOLOGIES TO SUPPORT THE LEARNING OF DYSLEXIC PRIMARY SCHOOL STUDENTS: RESULTS OF A SCOPING REVIEW A. Di Paolo, M.D. Todino	3393
OPENNESS TO LINGUISTIC AND VALUE DIVERSITY AS A KEY FACTOR IN THE DEVELOPMENT OF A LEARNING COMMUNITY T. Sbardella, C. Calicchio	3401
MIND MAP AS A CREATIVE TOOL IN THE ADVERTISING CONTEXT: A TEACHING METHODOLOGY A.C. Boechat, N. Baptista	3405
LET'S LEARN WITH ASTROEDU! L. Giacomini, E. Gomez, G. Mazzolo, G. Sanderson	3412
FACULTY PERCEPTIONS AND EXPERIENCES OF ANTI-OPPRESSION PEDAGOGY IN US SCHOOLS OF PUBLIC HEALTH A. Aqil, M. Malik, K. Jacques, K. Lee, C. Kennedy, G. Mooney, D. German	3413
DEVELOPING MULTIMODAL ASSESSMENT TYPES FOR TECHNOLOGY-ENHANCED AND INCLUSIVE LEARNING L. Barrio-Vilar	3414
CULTIVATING ANTI-OPPRESSIVE LEARNING COMMUNITIES (CAOLC): TRANSFORMING PEDAGOGY USING THE PRINCIPLES OF ANTI-OPPRESSION A. Aqil, K. Jacques, G. Mooney, K. Lee	3415
BLENDED LEARNING READINESS IN A MEXICAN HIGHER EDUCATION INSTITUTION: A PILOT STUDY E. Peñalosa-Castro, R. García-Ros, F. Pérez-González, P. Hernández-Cerrito	3416

THE EDUCATIONAL VALUE OF REAL-LIFE SCENARIOS: EXPERIENTIAL LEARNING AT ART FAIRS	3430
A. Vico-Belmonte, D. Benito-Osorio, A. Martinez-Fernandez, J. Palomo-Martinez	
THE KEEP IN SCHOOL SHAPE PROGRAM: ENGAGING STUDENTS IN REVIEW ACTIVITIES OVER ACADEMIC BREAKS C. van de Sande, J. Turner, J.E. Vandenberg, H. Allen, E. Castro, S. Chacon, A. Jenkins, A. Mcinnis, M. Morton, L. Reichert, H. Shaw, V. Valia	3436
THE KEEP IN SCHOOL SHAPE PROGRAM: NUDGING STUDENTS TO REVIEW OVER ACADEMIC BREAKS AND ADOPT A GROWTH MINDSET C. van de Sande, J. Turner, J.E. Vandenberg, H. Allen, E. Castro, S. Chacon, A. Jenkins, A. Mcinnis, M. Morton, L. Reichert, H. Shaw, V. Valia	3446
JOURNALISM AS A TRANSVERSAL AXIS IN THE TRAINING OF COMMUNICATION PROFESSIONALS IN MEXICO C. García-Hernández	3454
TUTORING HIGHER EDUCATION MATHEMATICS STUDENTS THROUGH INTELLIGENT LEARNING SOFTWARE J. Lourenço, C. Lucas, J. Morais, J. Becker, A. Silva	3462
THE CHANGE IN THE POLICY OF THE CENTER'S SUPPORT SYSTEM FOR STUDENTS WITH LEARNING DISABILITIES AND/OR ATTENTION DEFICIT DISORDERS (ADHD) IN THE DAYS OF COVID-19 A. Frishman Shitrit, O. Tykochinsky	3468
MAXIMISING THE POTENTIAL OF LABORATORIES TO DELIVER TRANSFORMATIVE ACTIVE LEARNING OPPORTUNITIES VIA EFFECTIVE USE OF LEARNING MANAGEMENT SYSTEMS P. Holland, L. Mason	3469
CROSS-CULTURAL AND DISCIPLINARY DESIGN WORKSHOPS: SHARING NEW PUBLIC SPACE ACTIVATION APPROACHES L.M.F. Fabris, R.M. Balzarotti, A. Ros Campos, G. Semprebon, M. Twardowski	3470
ORGANIZING A WRITING SESSION FOR C2 STUDENTS A. Sigaev	3477
TEACHING ARCHITECTURE DESIGN: EXPERIMENTS WITH COLOR AND LIGHT D.S. Opincariu, L. Patachi, A. Pop, L. Vartic	3483
PERSONALITY TRAITS OF MEN AND WOMEN AND PROCRASTINATION LEVEL M. Berinšterová, M. Bozogáňová, T. Pethö	3492
CHALLENGES OF SECOND LANGUAGE ACQUISITION IN PRIMARY EDUCATION IN AN INTERNATIONAL CONTEXT L. Simanová	3499
PRACTICAL ACTIVITIES IN ARCHITECTURAL TRAINING: SURVEYING HERITAGE BUILDINGS	3508
D.S. Opincariu, L. Patachi, A. Pop, L. Vartic	
USING COOPERATIVE LEARNING TO ENHANCE PROGRAMMING SKILLS IN INDUSTRIAL AUTOMATION DESIGN COURSES R.P. Neco, J.R. Pérez Beltrán	3513
FACTORS AND BARRIERS IN THE STRATEGIC MANAGEMENT OF UNIVERSITY COOPERATION WITH THE BUSINESS ENVIRONMENT CASE STUDY T. Corejova, M. Strenitzerova	3522
'WALKING IN SOMEONE ELSE'S SHOES': REDUCING AGGRESSION IN A ROMANIAN DELINQUENT POPULATION THROUGH ACTIVE LEARNING TECHNIQUES L.M. Sabareanu, C.E. Oprea, V. Gonța	3528
IMPROVING LEARNING OF COMPUTER PROGRAMMING BASICS IN SECONDARY EDUCATION THROUGH COLLABORATIVE METHODS J.R. Pérez Beltrán, R.P. Ñeco	3535
COMPUTATIONAL THINKING: CONTRIBUTIONS TO BEST IN-SERVICE PRACTICES V. Santos, M.M. Pinheiro	3541
PERCEPTION OF SOCIAL DEVIANCE IN A ROMANIAN DELINQUENT POPULATION: A QUALITATIVE STUDY L.M. Sabareanu, C.E. Oprea, M. Virlan	3547
PEDAGOGICAL INTERACTION MODEL FOR DEVELOPMENT OF STUDENTS' SELF- DIRECTED LEARNING SKILLS IN PRIMARY SCHOOL (CLASS 1-3) – APPROBATION AND OUTCOME ANALYSIS I. Pelnēna. A. Medveckis	3552

APPLIED THEATRE METHODS AS A PROMISING INNOVATION IN A RESEARCH FIELD R.A. Medeišienė	3562
DESIGNING AUTHENTIC ONLINE PROJECT-BASED LEARNING DURING CRISIS USING THE UDL FRAMEWORK: THE DISTANCE LEARNING SURVIVAL GUIDE J. Collazo	3567
AI-CHATBOT-INTEGRATION IN CAMPUS-MANAGEMENT-SYSTEMS S. Bieletzke	3574
METHODS FOR EVALUATING TECHNICAL DRAWING AIMED AT IMPROVING THE QUALITY OF TEACHING AND INCREASING STUDENTS' LEVELS OF KNOWLEDGE P. Hofrichterová, D. Fait	3584
COMPETENCY-BASED LEARNING AND ITS APPLICATION TO TEACHING THE FUNDAMENTALS OF ENGINEERING DESIGN D. Fait, P. Hofrichterová, V. Mašek, R. Čermák	3592
EXAMINING CHATGPT: HOW GOOD IS CHATGPT AT WRITING ENGINEERING COURSEWORK AND ITS IMPLICATIONS ON ACADEMIC INTEGRITY MISCONDUCT A. Joshi, D. Shamvedi	3598
SUBITIZING SKILL OF A THIRD-GRADE STUDENT WITH DYSCALCULIA N.B. Duran, M. Işıksal Bostan	3599
THE INNOVATIVE ROLE OF THE METAVERSE IN THE EDUCATION OF YOUNG STUDENTS I. Petcu	3604
ANALYSIS OF TEACHERS' MANUSCRIPTS ABOUT SCHOOL LIFE STORED IN THE ARCHIVE OF THE DEPARTMENT OF ETHNOLOGY, CROATIAN ACADEMY OF SCIENCES AND ARTS M. Buterin Mičić, D. Birt Katić	3611
ANALYSING THE POTENTIAL OF DIGITAL TOOLS FOR TEACHING PEDAGOGICAL DISCIPLINES AT UNIVERSITIES THROUGH THE EST&LDE CONCEPT M. Kolář, J. Malach, D. Vicherková	3622
UNIVERSITY TEACHERS' PERCEPTIONS ON PROFESSIONAL DEVELOPMENT OPPORTUNITIES. A CASE STUDY M. Seppälä	3630
ACCELERATING GENDER EQUITY IN TECHNOLOGY M. Hernandez, D. Reed, P. Beltran	3635
HIGHER EDUCATION FOR GOOD: PBL PRACTICES WITH POSITIVE IMPACT ON THE COMMUNITY S. Filipe, T. Aragonez, I. Saur-Amaral	3640
WORK FOR PROJECTS AS A STRATEGY FOR SELF-REGULATION OF LEARNING S. Pereira, L. Mestre, A. Neto	3648
GLOBAL SPOTLIGHT OF STUDENTS AND TEACHERS WELL-BEING: A BIBLIOMETRIC VIEWPOINT S.A. Olaleye, E.O. Olaleye, M.A. Balogun, O.S. Balogun	3658
PROJECT WORK IN THE 1ST CYCLE: LEARNING PATHWAYS A. Neto, L. Mestre, S. Pereira	3667
EVALUATION OF VIRTUAL EDUCATION IN LATIN AMERICAN UNIVERSITIES. A SUCCESS CASE: UNIVERSIDAD ESTATAL DE MILAGRO F. Guevara-Viejó, R. Ramírez-Anormaliza, J. Valenzuela-Cobos	3677
THE INSTRUMENTAL APPROACH IN THE DESIGN OF LEARNING SCENARIOS BY PRE-SERVICE ELEMENTARY TEACHERS S. Martins	3678
PRIVACY VS. LEARNING ANALYTICS I. Rosanda Žigo, M. Šantalab, N. Lazić	3688
THE VOICE OF STUDENTS FOR PEDAGOGICAL INNOVATION OF HIGHER EDUCATION: ADAPTING INTERNATIONAL MODELS AND PRACTICES TO THE ITALIAN CONTEXT V. Grion, M. Ranieri, G. Cuozzo	3695
OPEN MIDDLE PROBLEMS: MATH CHALLENGES THAT PROMOTE DEBATE AND CRITICAL THINKING V. Santos, N.R.O. Bastos	3703

TEACHERS' PERCEPTIONS OF SELF-REGULATED LEARNING AND THE SKILLS NEEDED TO IMPLEMENT IT IN THE CLASSROOM M. Lázaro Alcalde, B. Ortega-Ruiperez, A. Castellanos Sánchez, A. Pereles López	3709
CO-CONSTRUCTING WELL-BEING AT SCHOOL BETWEEN PERCEPTION AND REALITY B. Bocchi	3710
TEACHER TRAINING IN DIGITAL TECHNOLOGIES FOR INCLUSION B. Bocchi, E. Bortolotti	3715
CHALLENGES IN DESIGNING ONLINE LEARNING ENVIRONMENTS FOR HEARING IMPAIRED UNIVERSITY STUDENTS AT THE SCHOOL FOR THE HANDICAPPED S. Unluer	3720
DEVELOPMENT AND COORDINATION OF A MENTORING PROGRAM FOR SIX DIFFERENT DEGREES E. Rubio, T. Olivares Montes, A. Rubio-Moraga, E. Amo-Saus, C. Martín, J.C. García Martínez, E. Sánchez López	3721
CRITICAL THINKING SKILLS FOR DATA SCIENCE STUDENTS H. Belchior-Rocha, R. Mauritti	3730
PLANNING, EVALUATING, AND CERTIFYING THE DEVELOPMENT OF STUDENT COMPETENCIES USING A COMPUTERIZED SCOREBOARD: A 360° ASSESSMENT S.C. Poitras, S. Rivest, J. Robitaille, S. Verreault	3731
START IT: MOBILITY OF STUDENTS AS AN ACTIVE LEARNING METHOD FOR THE PROMOTION OF ENTREPRENEURSHIP AND DIGITAL SKILLS J.C. Monteiro, H. Bollaert, K. Dziergwa, J. Hautamaki, A. Khavasi, K. Podlaski, P. Possemiers, D.	3741
O'Reilly, K. Simbeck, Z. Stawska	25.45
PERCEPTIONS OF READINESS FOR ONLINE LEARNING BETWEEN SIGHTED AND VISUALLY IMPAIRED STUDENTS E. Huff, J. Brinkley	3747
UNCOVERING ACADEMIC MISCONDUCT AMONG ETHNIC MINORITY STUDENTS: PERSPECTIVES FROM ACADEMIC INTEGRITY OFFICERS AND IMPLICATIONS FOR HIGHER EDUCATION P. Seuwou, A. Daxini, A. Ige-Olaobaju, N. Dodzo, M. Opoku Agyeman	3756
GAMES FOR GOALS: EDUCATION FOR SUSTAINABLE DEVELOPMENT J.C. Monteiro, C. Arragon, D. Bol, H. Bollaert, A. Bouin, P. Collin, F. Ederer, J. Ides	3765
E-SAFETY AT HOME: EXPLORING THE 21ST CENTURY SKILLS OF YOUNG PEOPLE AT HOME AND AT SCHOOL M. Cowling, K.N. Sim, J. Orlando	3769
ON E-SAFETY DISCONNECTION: PARENTS AND GRANDPARENTS DIFFERENT PERCEPTIONS OF DIGITAL LITERACY AT HOME COMPARED TO YOUNG PEOPLE J. Orlando, M. Cowling, K.N. Sim	3770
RETHINKING THE POTENTIAL OF UNIVERSITY ENTREPRENEURSHIP EDUCATION A. Soler-Domínguez, J.C. Matallín-Sáez, L. Morales, L. Pop	3771
FROM DIVERSITY TO INCLUSION: UNDERSTANDING LEARNING STYLES AND ADJUSTMENT CHALLENGES OF INTERNATIONAL STUDENTS - A LITERATURE REVIEW S. Sawesi, G. Tusch	3776
A COMPARATIVE ANALYSIS OF INTERNATIONAL AND US GRADUATE STUDENTS: PRE, DURING, AND POST COVID-19 S. Sawesi, G. Tusch	3784
RUBRIC: EVALUATION OF SKILLS ACQUIRED WHEN READYING SOFTWARE DEVELOPMENT PROJECTS D.I. Ortiz Esquivel, M.A. Araiza Esquivel, C.A. Olvera Olvera, S. Villagrana Barraza, A. López Martínez, G. Díaz Flórez, H.A. Durán Muñoz, C.H. Castañeda Ramírez	3791
AUGMENTED REALITY ON THE EFFECTIVENESS OF NATURAL SCIENCE TEACHING IN PRIMARY AND SECONDARY SCHOOLS: A META-ANALYSIS Q. Shen, L. Kuo, P. Tsai	3801
SOFTWARE PROJECT MANAGEMENT EDUCATION DURING THE COVID-19 PANDEMIC: AN EXPERIENCE REPORT OF EMERGENCY REMOTE EDUCATION M.L. Fioravanti, R.T. Vaccare Braga, E.F. Barbosa	3811
MENTORING AS A TOOL FOR RESEARCH INITIATION J.L. Sánchez-Jiménez, F.J. Muñoz-Rodríguez, J.I. Fernández-Carrasco, J.D. Aguilar-Peña, M.D. La Rubia. C. Rus-Casas	3816

DEVELOPMENT AND IMPLEMENTATION OF AN EDUCATIONAL PROGRAM THAT LINKS COMPUTATIONAL THINKING EDUCATION TO INQUIRY-BASED LEARNING FOR LOCAL COMMUNITY K. Takemata, A. Minamide, S. Fujishima	3824
INTERACTIVE MASS LECTURING: THE USE OF ANIMATED VIDEOS TO ENHANCE ACTIVE LEARNING IN BUSINESS ETHICS SUBJECT A. Ko, E.W.K. Yeung	3830
FLIPPED CLASSROOM TO IMPROVE THE PERCEPTION OF THE INDUSTRIAL REALITY IN SCIENCE AND ENGINEERING UNDERGRADUATE STUDIES A.M. Díez, S. Escudero, A. Fdez-Sanromán, M. Pazos, E. Rosales, M.A. Sanroman	3836
DIGITAL LITERACY AMONG TEACHERS OF LEARNERS WITH DISABILITIES IN KENYA AND THE CZECH REPUBLIC M. Kavua	3837
IMPLEMENTATION OF ACTIVE LEARNING ACTIVITIES AND THEIR EFFECT ON STUDENT MOTIVATION IN CHEMICAL TECHNOLOGY SUBJECT A. Fdez-Sanromán, A.M. Díez, S. Escudero, M. Pazos, E. Rosales, M.A. Sanroman	3838
POSSIBILITIES OF DEVELOPING THE TECHNICAL CREATIVITY OF STUDENTS IN SECONDARY SCHOOLS R. Loskot, Š. Major	3839
THE EFFECT OF ACADEMICIANS' ATTITUDES TOWARDS DIGITAL TECHNOLOGY ON JOB PERFORMANCE G. Sart, F.H. Sezgin	3845
EVALUATION OF ACADEMICIANS' ATTITUDES TOWARDS SUSTAINABILITY ACTIVITIES OF UNIVERSITIES G. Sart, F.H. Sezgin	3851
NUDGING AT-RISK STUDENTS TOWARDS SUCCESSFUL COMPLETION C. Kaur, J. Luu, T. Cui, R. Yuniasih	3857
THE RELATIONSHIP BETWEEN DIGITAL GAME ADDICTION AND SUBJECTIVE WELL-BEING IN UNIVERSITY STUDENTS G. Sart	3864
ANALYSIS OF SOCIAL MEDIA ADDICTION IN UNIVERSITY STUDENTS G. Sart	3870
THE ROLE OF EDUCATION IN THE PROCESS OF HELPING UKRAINIAN WAR REFUGEES V. Demidenko	3876
THE HEALTH RISKS POSED BY EXCESSIVE USE OF MOBILE DEVICES AS THE TOPIC OF MEDICAL EDUCATION M. Trnka, N. Koscova, E. Kralova	3883
3D PRINTING IN ARCHITECTURE M. Valiente Lopez, S. Moyano Sanz, A. Verdú Vázquez, S. Díez Sanz, N. León-Martínez	3887
CLUSTERING AND VISUALIZATION OF AUTHORS' FEATURE USING WORD FORMATTING INFORMATION TO SUPPORT PLAGIARISM DETECTION IN CLASS ASSIGNMENT REPORTS A. Ohno	3897
RETHINKING HOW TO OPTIMIZE DISSEMINATION OF THE SOLUTIONS REACHED BY THE STUDENTS TO SOLVE COMPANIES' PROBLEMS WITH PBL+ LEARNING-TEACHING METHODOLOGY E.J. Martínez, R. Mateos, O. Martínez-Morán, M. Barquero, A. Crespo, C. Fernández, J. Cara, M.E. Sánchez, A. Morán, B. Urbano, X. Gómez, F. Gonzalez-Andres	3902
APPLIED ELECTRONICS TEACHING: PBL BASED ON RADIO CONTROL VEHICLES M. Fuentes Conde, M. Vivar García, J. Torres López	3910
DO JOURNALISTS WITH A NON-JOURNALISTIC UNIVERSITY DEGREE WANT TO STUDY JOURNALISM REMOTELY? THE CASE OF CROATIA AND COUNTRIES IN THE REGION T. Vukić, A. Bilan, K. Čirjak	3920
THE EXPERIENTIAL DIMENSION OF TIME AND HOPE: A QUALITATIVE STUDY WITH HEALTH PROFESSIONALS IN TRAINING F. Marone, M. De Simone, M. Navarra	3932
OPERATIONAL EPISTEMOLOGY: PROMOTING AWARENESS OF ONE'S OWN COGNITIVE PROCESSES THROUGH METAPHORICAL LANGUAGE M. De Simone, M.R. Strollo, F. Marone	3939

GREEN SKILLS FOR SUSTAINABLE AIR TRANSPORT	3947
S.E. Zaharia, A.P. Pavel, S. Toma, F. Pérez Moreno, M. Zamarreño Suárez	
REVISITING LI JINHUI'S MUSIC TEACHING METHODS FOR PRESCHOOLERS FROM HIS BOOK "POPULAR TEXTBOOK - MUSIC TEXTBOOK AND TEACHING METHODOLOGY IN KINDERGARTEN" Y. Huang, F.C. Loo	3957
E-LEARNING AS AN INTEGRAL PART OF STUDY - EXPERIENCE WITH THE USE OF E-LEARNING COURSE IN THE SUBJECT NUMERICAL METHODS AND STATISTICS I. Pobočíková, Z. Sedliačková, M. Michalková, Z. Malacká	3964
FEAR OF MISSING OUT SYNDROME (FOMO) AND EMOTIONAL REGULATION IN ADOLESCENTS M. Popelková, E. Jurišová, M. Zaťková	3970
NANOLEARNING: TIKTOK MICROVIDEOS AS A NEW LEARNING SOURCE M. Vergara-Barberán, M.J. Lerma-García, J.M. Herrero-Martínez, E.F. Simó-Alfonso, M. Beneito-Cambra, E.J. Carrasco-Correa	3975
EVALUATION OF THE EFECTIVENESS OF INSTRUCTIONAL VIDEOS AS A SUPPLEMENTARY SELF-LEARNING TOOL IN ANALYTICAL CHEMISTRY SUBJECTS M.J. Lerna-García, M. Beneito-Cambra, M. Vergara-Barberán, J.M. Herrero-Martínez, E.F. Simó-Alfonso, E.J. Carrasco-Correa	3984
NEW PERSPECTIVES FOR CLEANROOM TRAINING USING VIRTUAL REALITY T. Kaiser, F. Lukas, M. Steinert, J. Kretzschmar, A. Tünnermann	3994
A SYSTEM FOR REPORTING AND ANALYZING LIVE DATA FROM INTERNAL COMBUSTION ENGINE EMISSIONS WITH APPLICATION IN ENGINEERING EDUCATION S. Asenov, D. Shehova, H. Kanevski	3995
ARTIFICIAL INTELLIGENCE IN THE EDUCATION OF HEALTH PROFESSIONS: A DESCRIPTIVE ANALYSIS THROUGH BIBLIOMETRICS A. Alves Lopes	4000
REAL-WORLD PROJECTS IN THE CLASSROOM: AN AUTHENTIC LEARNING APPROACH H.Y.J. Tan, M. Neo, T.K. Neo, S.H. Hew, K. Hamidani	4006
GENDER PERSPECTIVE IN BUSINESS: THE MACROECONOMIC STUDENTS POINT	4010
OF VIEW M.T. Bartual-Figueras, J. Turmo Garuz, A. Colom-Cabau, M.A. Felipe-Checa, J. González-Calvet, M. Gres-Llort, F. Sánchez-Losada	
THE USE OF A PROGRAMMABLE MODEL OF AN AUTOMATED WAREHOUSE IN THE TEACHING PROCESS V. Binasova, B. Mičieta, M. Krajčovič, G. Gabajová, M. Gašo, M. Kasajová, Š. Mozol	4015
INTERACTING WITH "ZOOMIES": DIFFICULTIES AND CHALLENGES THROUGH THE EYES OF LECTURERS A. Carvalho, V. Lima, S. Silva, C. Silva, J. Fernandes, P. Peres	4022
COMPETENCES, MOTIVATION AND SUITABILITY OF INTERNSHIPS TO IMPROVE EMPLOYABILITY J. Turmo Garuz, M.T. Bartual-Figueras, F.J. Sierra-Martínez	4031
ONLINE PEER EDITING: EFFECTS OF ITS ELEMENTS (COMMENTS AND TRACKED CHANGES) AND STUDENTS' PERCEPTION OF PARTICIPATION IN THIS COLLABORATIVE ACTIVITY ON WRITING PERFORMANCE G. Shulgina, J. Costley, I. Shcheglova, H. Zhang, N. Sedova	4037
DISSERTATION RESCUE AND FLEX CHAIR MENTORING FOR SOCIAL AND CULTURAL INCLUSION L.L. Neiworth	4038
LEARNING INSIDE THE BOX: STUDENTS' PERCEPTIONS OF EMERGENCY REMOTE LEARNING J. Fernandes, S. Silva, C. Silva, V. Lima, A. Carvalho, P. Peres	4043
TRAINING IN SUSTAINABLE DEVELOPMENT GOALS (SDGS) VIA WEBINAR TRANSMISSION WITH RESPONSIBLE COMPANIES P. Talón-Ballesteros, M.P. Abad-Romero, A. Orea-Giner	4048
"DIGITAL LEARNING TO (RE)IMAGINE A POSITIVE DIRECTION FOR POST-COVID EDUCATION": EUROPEAN PERSPECTIVES T.M. Loureiro Cardoso, G. Bastos, F. Pestana, A.P. Rocha, M.P. Casanova, M. Beaton	4053
THE ROLE OF QUESTIONS IN SOCIAL INTERACTIONS OF SCHOOL DISCOURSE K. Rysová	4058

INTERFERENCE OF LANGUAGE COMPETENCES OF STUDENTS WITH SPECIFIC LEARNING DISABILITIES IN HIGHER EDUCATION ENVIRONMENT R. Kovářová, H. Chlebcová	4064
GOING PAPERLESS: BETTER FOR THE ENVIRONMENT, BUT BETTER FOR THE STUDENTS? STUDENT PERCEPTIONS OF TEACHING USING ONLY ELECTRONIC HANDOUTS A. Millward-Sadler	4073
CONFRONTING ATTITUDES OF TEACHERS TOWARDS INCLUSIVE EDUCATION PREDETERMINED BY UNFAVOURABLE EDUCATIONAL FACTORS: GERMANY, POLAND AND LITHUANIA A. Galkienė, O. Monkevičienė	4079
SIMULATION VS CASE STUDIES: MAXIMIZING THE IMPACT OF INCLUDING ETHICAL ISSUES IN THE HIGHER EDUCATION CURRICULA FROM AN INTEGRATIVE POINT OF VIEW J. Valero-Gil, F. Llena, E. Llera-Sastresa, M. Marco-Fondevila, T. Montaner, A. Perez, A. Sanz-Hernandez, S. Scarpellini, I. Suárez-Perales, A. Aranda-Usón, A. Garrido, J. Gutierrez	4090
THE CHALLENGES AND OPPORTUNITIES INCORPORATION WORK-INTEGRATED LEARNING IN ONLINE HIGHER EDUCATION S. Nilsson, U. Hedman	4091
INTRODUCING CASE STUDY AUDIO PODCASTS IN BUSINESS AND INFORMATION SYSTEMS STUDIES J. Jäger, S. Korkut, T. Inglese, T. Schmiedel	4097
COOPERATION OF KEY ACTORS IN THE CONTEXT OF SCHOOL EDUCATION OF TWICE EXCEPTIONAL PUPILS R. Kovářová, M. Kaleja	4106
THE DEVELOPMENT STATUS AND DILEMMA OF VOCATIONAL EDUCATION FOR PEOPLE WITH INTELLECTUAL DISABILITIES IN CHINA A.J. Yang	4107
QUESTION PAPER DESIGN IN ENGINEERING EDUCATION – AN ANALYSIS H. Hussain, S. Mandal	4111
THE INFLUENCE OF FAMILY ON THE ORIGIN AND DEVELOPMENT OF EATING DISORDERS IN ADOLESCENT GIRLS V. Kolková	4118
LET'S GET INSPYRED: THE IMPACT OF THE "INTERNATIONAL SCHOOL ON MODERN PHYSICS AND RESEARCH" ON HIGH SCHOOL STUDENTS' STEM CAREER ASPIRATIONS A Postiology & Partelli C. Compagner & Among D. Piferenti, F. Patrionandli & Pode F. Cantingli	4127
A. Postiglione, S. Bertelli, C. Curceanu, S. Arnone, D. Bifaretti, E. Patrignanelli, S. Reda, E. Santinelli MINDING MEDIA MINECRAFT WORLD: DEVELOPING MEDIA LITERACY CONCEPTS THROUGH GAMIFICATION V. O'Rourke, J. Blue, G. Gkogkas, K. Roumbas, T. Femić Bumbić	4136
EXPLORING THE LIVED EXPERIENCES OF EXTENDED CURRICULUM PROGRAMME STUDENTS AT STELLENBOSCH UNIVERSITY IN SOUTH AFRICA M. Mouton	4141
GAMIFICA - CONTINUOUS LEARNING THROUGH GAMIFICATION MECHANISMS FOR MACHINE LEARNING E. García-Cuesta, E. Serrano, A.M. López, I. Garrido Cerezo, R. Valle, B. Mihaljevic, D. Zanardini, J. Bajo	4148
INFORMATICS IN THE FIRST LEVEL OF PRIMARY SCHOOL V. Stoffová, A. Katyetova, J. Obonya	4155
INCLUSIVE SECONDARY VOCATIONAL EDUCATION SYSTEM IN RUSSIA: MONITORING AND EVALUATION AND "BEST PRACTICES" A. Yang	4165
DESIGN, SIMULATION, AND ENERGY ASSESSMENT OF THE ENERGY PRODUCTION OF A 10 KW PHOTOVOLTAIC SYSTEM AT PU "PAISIY HILENDARSKI", SMOLYAN, BULGARIA S. Asenov, D. Shehova, H. Kanevski, S. Lyubomirov	4166
BADGES - THE POSSIBILITY OF INCREASING MOTIVATION IN THE EDUCATIONAL PROCESS L. Gajanova, J. Michulek, J. Majerová	4175
DIGITAL MARKETING COMMUNICATION IN THE PROMOTION OF UNIVERSITIES: CASE STUDY OF SLOVAK REPUBLIC M. Nadanyiova, J. Majerova, A. Krizanova	4180

IMPROVING RESEARCH SKILLS OF UNDERGRADUATE STUDENTS USING A PRACTICAL APPROACH	4188
A.V. Herrera-Herrera, B. Socas-Rodríguez, R. Rodríguez-Ramos, Á. Santana-Mayor, A. Conde-Díaz	
LEARNING MOTIVATION OF STUDENTS AND THE WAYS OF ITS DEVELOPMENT IN THE ENGLISH LANGUAGE TEACHING PROCESS AT UNIVERSITIES O. Danilova, A. Zabolotskaya	4196
PIXEL - PICTURE (OF) THE UNIVERSE: AN EDUCATIONAL BOARD GAME ABOUT ASTROPHYSICS RESEARCH WORLD R. Toniolo, G. Inchingolo, S. Casu, G. Contino, V. La Parola, R. Leoni, S. Varano, A. Zanazzi, A. Ligabue, S. Ricciardi	4202
THE NEEDS OF ELEMENTARY SCHOOLS IN THE CZECH REPUBLIC IN THE CONTEXT OF THE INTRODUCTION OF THE SOCIAL PEDAGOGUE POSITION J. Šmída, T. Čech, T. Hormandlová, A. Jůvová	4210
USING CHATGPT TO INVESTIGATE TRENDS IN DIGITAL STORYTELLING AND KNOWLEDGE SHARING IN HIGHER EDUCATION D. Cranfield, I. Venter, A. Daniels	4217
DEVELOPMENT OF SELF-REGULATORY SKILLS AT UNIVERSITY: COMPARING OPINION OF JAPANESE AND LITHUANIAN STUDENTS R. Kurita, G. Ciuladiene	4226
WHAT PROGRAMMING TOOL TO CHOOSE FOR TEACHING PROGRAMMING V. Stoffová	4232
HOW TO BE "ACROBATS OF TIME": TEACHING CLIMATE CHANGE TO PRIMARY STUDENTS M. Massignani, S. Pacchini, E. Piva, S. Schumann, G. Santovito, P. Irato	4240
INTERVENTION FOR THE IMPROVEMENT OF SPATIAL INTELLIGENCE IN SECONDARY SCHOOL STUDENTS THROUGH GAMIFICATION WITH THE GAME BLOCK & GO! © I. Sánchez-Ramos, M. Mesa Sanz, M.J. Casati Calzada	4248
LEARNING LABORATORY SKILLS USING VIRTUAL SIMULATORS IN A SEPARATION METHODS COURSE A.V. Herrera-Herrera, B. Socas-Rodríguez, R. Rodríguez-Ramos, Á. Santana-Mayor, A. Conde-Díaz	4255
BLENDED LEARNING AS A MEANS OF INTENSIFICATION OF THE ENGLISH LANGUAGE TEACHING AT A UNIVERSITY A. Zabolotskaya, O. Danilova	4262
REVEALING GENDER DIFFERENCES IN SELF-REGULATION SKILLS USING CLICKSTREAM DATA A. Fayzullina, A. Kapuza	4268
SUSTAINABLE EDUCATION MODEL FOR HUMANOID ROBOT INTEGRATION IN EDUCATIONAL PROCESS D. Zemljak, M. Kerneža	4274
OPTIMIZATION AND STATISTICS IN HIGHER EDUCATION: A PROJECT BASED LEARNING IN THE SUSTAINABLE DEVELOPMENT GOALS CONTEXT H.S. Rodrigues	4283
ENHANCING CREATIVE AND INNOVATION SKILLS IN ENGINEERING STUDENTS THROUGH PROJECT-BASED LEARNING	4290
J. López Santiago, M.T. Gómez Villarino, D. Pereira Jerez, J. Urquijo Reguera, M. de Francisco Alonso	
THE CLASSIFICATION OF THE ANIMAL KINGDOM. A GUIDED DIDACTIC PATH TO DISCOVER SYSTEMATICS STARTING FROM SPONTANEOUS HYPOTHESES B. Tonon, M. Massignani, S. Pacchini, E. Piva, S. Schumann, G. Santovito, P. Irato	4295
UNDERSTANDING PEDAGOGIES OF WRITING FOR MIDDLE SCHOOL WRITING CLASSROOMS N. Mather	4303
TEACHING AND LEARNING USING DIGITAL TECHNOLOGY: WHAT ARE THE AFFORDANCES AND HOW DO THEY ALIGN WITH THE AFFORDANCES OF DIGITAL ASSESSMENT? S. Hughes, C. Green	4314
UNIVERSITY STUDENTS' MOTIVATIONAL ORIENTATIONS, LEARNING STYLES, THINKING STYLES, AND ACADEMIC BEHAVIORS: COMMON COURSES IN SCIENCE, MATHEMATICS, AND ENGINEERING (SME) OF GENERAL EDUCATION CURRICULA A. Gogus, N.G. Gogus	4315

USING MDM (MOBILE DEVICE MANAGEMENT) FOR APPLE IPAD IN THE SCHOOL ENVIRONMENT J. Kucerik	4326
USING FLOWCHARTS IN COMPUTER MODELING AND INFORMATION TECHNOLOGY TRAINING FOR DRAWING COMPLEX GEOMETRIC FIGURES S. Neykova-Karagaeva, S. Tsankov	4331
AN EXPLORATION OF MIDDLE SCHOOL BOYS' PERCEPTIONS OF THE WRITING PROCESS N. Mather	4341
STUDEA: DIGITAL BOOKLET FOR APPRENTICESHIP B. Mbaye, L. Lazar-Favory, F. Lallemand	4351
THE PERCEPTION OF STUDENTS AT THE UNIVERSITAT POLITÈCNICA DE VALÈNCIA (SPAIN) ABOUT TRAINING IN TRANSVERSAL COMPETENCES L. Canós-Darós, V.E. García Félix, F. Castelló-Sirvent	4356
DESIGNING, IMPLEMENTING AND EVALUATING A CO-CREATIVE SUPPORT TECHNOLOGY M. Pifarre	4364
EQUITY EXPLORED: THE SACRIFICE OF INDIGENOUS STUDENTS OF NICARAGUA B. Mills, P. Lane	4368
EVALUATING THE LEARNING EXPERIENCE OF A PROGRAMMING LANGUAGE AT DIFFERENT UNIVERSITY STAGES X. Costoya, D. Fernández-Nóvoa, O. García-Feal, I. Martínez-Estévez, J.M. Domínguez, M. Gómez-Gesteira, M. de Castro	4375
THE INFLUENCE OF LOCKDOWN IN TEACHING A CHEMISTRY LABORATORY FROM THE TEACHER'S PERSPECTIVE E.J. Delgado-Pujol, G. Martínez, M. Merinero, D. Casado, J.J. González, B. Begines, A. Alcudia	4380
METACOGNITIVE ACTIVITIES FOR IMPROVING TEACHERS' AND LEARNERS' PERFORMANCE A. Zernova	4387
THE ADVANTAGES OF INCORPORATING ANIMATION AND VISUALIZATION IN DATA STRUCTURES COURSE G. Kogan, H. Chassidim, I. Rabaev	4394
BAUHAUS AT FAUHAUS D.S. Opincariu, A. Pop, L. Patachi, L. Vartic	4401
EVOLUTION OF ADMISSION AND FINAL GRADES IN DIFFERENT SUBJECTS AND UNIVERSITY DEGREES ANALYSED FROM A GENDER PERSPECTIVE A. Vidaurre Garayo, I. Tort Ausina, M.A. Serrano Jareño, J. Riera Guasp, S. Quiles Casado, N. Navajas Pertegás, J. Molina Mateo, J.M. Meseguer Dueñas, R. Martín Cabezuelo, J.A. Gómez Tejedor	4406
EFFECTIVENESS OF AN EMOTION REGULATION SKILLS TRAINING TO ALUMNI STUDYING A MASTER'S DEGREE IN GENERAL HEALTH PSYCHOLOGY: PRELIMINARY RESULTS	4412
M.V. Navarro-Haro, O. Péris-Baquero, J. Osma, S. Valdivia, A. Díaz-García	
THE FIRST ARCHITECTURE PROJECT: A CONTINUOUS EXPERIMENT IN THE FIRST YEAR OF STUDY D.S. Opincariu, A. Pop, L. Patachi, L. Vartic	4413
USE OF QUIZZI TO PROMOTE ACTIVE LEARNING IN THE SUBJECT "GENERAL PSYCHOPATHOLOGY" O. Péris-Baquero, L. Martínez-García, M.V. Navarro-Haro, J. Osma, A. Díaz-García, V. Martínez-Loredo	4419
MEDICAL HUMANITIES AND CULTURE AS PART OF MEDICAL STUDENTS' TRAINING IN FOREIGN LANGUAGE CLASSES L.I. Leon	4420
STUDENTS' ATTITUDE TO LECTURERS LEADERSHIP: THE CASE OF THE MILITARY ACADEMY OF LITHUANIA R. Kazlauskaitė Markelienė, V. Giedraitytė	4428
ANALYSIS OF PALEONTOLOGICAL AND EVOLUTIONARY KNOWLEDGE OF COMPULSORY EDUCATION STUDENTS FROM MADRID (SPAIN) B.A. Garcia Yelo, D. Romero-Nieto, O. Fesharaki	4429
NEW SKILLS IN THE MODERN ACCOUNTANTS' PROFESSION: INTERNATIONAL EDUCATION STANDARDS AND THE UNIVERSITY-BUSINESS EXPECTATIONS T. Cunha. A. Carvalho. M. González-Loureiro	4438

AN EPORTFOLIO PROCESS: HOW STUDENTS CURATE SUCCESSFUL FUTURE CAREER THINKING N. Yeo, J. Rowley	4450
GENDER AND SOCIALIZATION DIFFERENCES DETECTED IN A UNIVERSITY GEOLOGICAL FIELDWORK ACTIVITY O. Fesharaki, B.A. Garcia Yelo	4455
AI IN HIGHER EDUCATION: NEW ETHICAL CHALLENGES FOR STUDENTS AND TEACHERS F. Castelló-Sirvent, V.E. García Félix, L. Canós-Darós	4463
EDUCATIONAL STRATEGIES TO MITIGATE CLIMATE CHANGE SCEPTICISM L. Vladu, M. Enache	4471
VIRTUAL ANATOMICAL SKULL STUDY OF THE BEARDED VULTURE: COMPARING 3D TECHNIQUES FOR EDUCATIONAL INNOVATION J.A. De Pablo-Moreno, R. Sánchez-Belinchón, A. Miguel-Batuecas, M. Fuertes-Recuero, L. Revuelta	4477
SCHOOL ENGAGEMENT OF SLOVAK ADOLESCENTS IN RELATION TO THE BIG FIVE PERSONALITY TRAITS B. Žitniaková Gurgová, L. Ďuricová	4478
IMAGES OF SMART COMMUNITIES WITH DIGITAL SUSTAINABILITY FROM THE YOUNG GENERATIONS IN AUSTRIA AND IN TAIWAN J. Lu Hsu, M. Pivec	4484
PILOT IMMERSION OF UNDERGRADUATE STUDENTS IN THE SCIENTIFIC METHOD BY APPLYING FOR A RESEARCH PROJECT IN A SIMULATED CALL FOR PROPOSALS M.M. Caja, M.A. Martín, B. López-Ruiz, A.I. Olives	4488
A CURRICULUM FOR CHOICE: HOW WE CAN BUILD THE CAPACITY OF YOUNG PEOPLE TO BECOME BETTER CHOOSERS J. Playfoot, M. Hall	4493
ROADMAP FOR NEW PEACE GAMES DEVELOPMENT M. Pivec, A. Kronberger, U. Lagger	4501
DROPOUT AT UTAD: EVOLUTION AND MECHANISMS OF SUPPORT T. Ferreira, J.P. Cravino	4506
USEFULNESS OF THE GUIDED CLINICAL CASE TO IMPROVE STUDENT MOTIVATION AND LEARNING IN THE SUBJECT OF ENDOCRINOLOGY AND NUTRITION IN THE MEDICAL DEGREE. TWO YEARS EXPERIENCE S. Martinez-Hervas, D. Ortiz Masiá, H. Gonzalez-Navarro, F.J. Ampudia-Blasco, J.F. Merino Torres, C. Sánchez Juan, J.T. Real	4512
HIGHER EDUCATION STUDENTS' PERCEPTION OF UNIVERSITY SOCIAL RESPONSIBILITY, SATISFACTION, SERVICE QUALITY AND SUSTAINABLE DEVELOPMENT GOALS 2030 Z.C.D. Sarmento, C.S. Marques, G. Santos, T. Ferreira	4516
APPLICATIONS OF ANALOG BOARD GAME PLAY IN HIGHER EDUCATION TEACHING AND LEARNING: A SYSTEMATIC REVIEW N. Bareford	4523
ENHANCING EXPERIENCED EXPERTS' CONTRIBUTION IN HIGHER EDUCATION OF SOCIO-PEDAGOGICAL EDUCATORS M. Sottocorno	4533
IMPROVING LEARNING EFFECTIVENESS AND STUDENT ENGAGEMENT THROUGH REAL-LIVE SIMULATIONS - RESULTS FROM A STUDY ON APPLICATION OF KPI-BASED PREDICTIVE ANALYTICS IN REAL-LIVE SPORTS EVENT FORECASTING S. Dressler, D. Foerster-Trallo, T. Rachfall, S. Dressler	4537
COMPARISON OF CLASSICAL AND INQUIRY-BASED INSTRUCTION USING VIRTUAL REALITY IN GEOGRAPHY LESSONS J. Vojteková, K. Brestičová, M. Vojtek	4546
ENHANCING LEARNER MOTIVATION THROUGH INNOVATIVE TEACHING METHODOLOGIES: A HYBRID STUDY ON COLLABORATION AND MOBILE LEARNING	4553
A.B. Mudarra Fernández, R. Puentes Poyatos, D. Fernández Uclés, A. Liceran Gutierrez NON-LINEAR MICROWAVE DEVICE CHARACTERIZATION: A STEP FORWARD	4560
FROM S-PARAMETERS IN GRADUATE AND UNDERGRADUATE ENGINEERING TEACHING	±JUU
M. García Palomo, F. Pasadas, S. Ortiz Ruiz, A. Medina-Rull, M.C. Fernández-Sánchez, E. G. Marin, C. Torres Montijano, M. Fernández-Pantoja, F. García Ruiz	

CONTRIBUTING TO THE SUSTAINABLE DEVELOPMENT GOALS THROUGH TRAINING: AN EMPIRICAL STUDY R. Puentes Poyatos, A.B. Mudarra Fernández, D. Fernández Ucles, A. Liceran Gutiérrez	561
FUTURE OF SCHOOL BASED STUDIES (SBS) POST COVID 19 45	570
K. Paulus, M. Kalengay, B. Kerima TEACHING COMPUTATIONAL THINKING WITH SCAFFOLDED PROGRAMMING SCRIPTS C. Angeli 45	575
	576
THE EFFECTS OF COGNITIVE TYPE AND LEARNING WITH GAMES ON SECONDARY EDUCATION STUDENTS' UNDERSTANDING OF IF-THEN-ELSE C. Angeli, K. Tortouri	577
ONLINE TEST ANALYSIS FOR THE EVALUATION OF THE FLIPPED LEARNING METHODOLOGY AND THE LEARNING PROCESS IN TECHNICAL STUDIES Z. Azkorra-Larrinaga, I. Gómez-Arriaran, M. Odriozola-Maritorena, J. Gainza-Barrencua, N. Romero-Antón	578
A FRAMEWORK FOR ASSESSING THE ROLE OF HIGHER EDUCATION PEDAGOGIES IN ACHIEVING SUSTAINABLE DEVELOPMENT GOALS IN AFRICA M. Achieng	584
FLEXI-COMP PROJECT: DIGITAL COMPETENCES FOR A FLEXIBLE AND INCLUSIVE FRAMEWORK FOR TRANSFORMATIVE TEACHERS M.J. Hernandez-Serrano, N. Morales-Romo 45	594
STUDENTS' MOBILITY IN THE COVID-19 ERA: AN EMPIRICAL STUDY IN ITALY P. Bernardi, L. Tebaldi, B. Bigliardi, A. Volpi, E. Bottani	500
,	610
MASSIVE DATA-MINING ANALYSIS OF DISTANCE SCIENCE EDUCATION LEARNING SYSTEMS L. Kuo, P. Tsai, C. Chiang, K. Tu	511
DESIGN AND IMPLEMENTATION OF A NUTRITIONAL EDUCATION PROGRAM FOR PATIENTS WITH COLON CANCER AS A LEARNING TOOL FOR STUDENTS OF THE MASTER'S DEGREE IN HUMAN NUTRITION AT THE UNIVERSITY OF GRANADA F.J. Amaro-Gahete, A. Cisneros, J. Jurado, A. Orellana, J. Contreras, V. De León, N. Martínez, G. Morata, C. González-Callejas, S. Candeias, M. Fernández, M. Flor-Alemany, P. Corres, T. Nestares	520
,	527
FACTORS ASSOCIATED WITH THE LEVEL OF SATISFACTION OF STUDENTS IN STATISTICS AND COMPUTER SCHOOLS WITH VIRTUAL TEACHING IN TIMES OF THE COVID-19 PANDEMIC M. Correa, F. Li, J. Aquino, N. Germán	532
WELL-BEING, MOTIVATION, AND ADAPTATION OF UNIVERSITY STUDENTS: THE POTENTIAL INFLUENCE OF MENTORING PROGRAMS P. Paulino, S. Ibérico Nogueira, L. Almeida, M. Claro	536
USE OF MOODLE FOR INTEGRATED MANAGEMENT OF OBJECTIVE STRUCTURED CLINICAL EXAMINATIONS (OSCE) G. Gonzalez-Caminal, R. Samson, R. Pujol-Farriols, J. Roma-Millan, C. Gomar-Sancho, M. Boteller	643
DO VISUAL THINKING STRATEGIES IMPROVE THE LEARNING EXPERIENCE? 46 V. Pitrella, A. Re, S. Perna, G. Città, S. Ottaviano	550
DEVELOPMENT OF CREATIVITY AND CRITICAL THINKING SKILLS: FINDINGS FROM STUDENTS PARTICIPATING IN A PBL EXPERIENCE F. Castro-Lopes, S. Fernandes	555
	663

WORKING METHODOLOGY TO ANALYZE THE CURRENT STATUS OF SDG INTEGRATION IN ENGINEERING SUBJECTS	4669
R. Benavente, A. Borrell, J. Lluch, J. Martínez-Casas, M.D. Navarro, M.J. Rupérez, O. Sahuquillo, F. Salas, M.D. Salvador, A. Sonseca, A.M. Pedrosa	
THE IMPACT OF A FLIPPED CLASSROOM DESIGN OF AN ENGLISH AS A FOREIGN LANGUAGE LISTENING COURSE ON STUDENT'S SELF-EFFICACY J.B. Yang, M. Valcke	4676
PREREQUISITES FOR EFFECTIVE FOREIGN LANGUAGE ACQUISITION AMONG ADULT LEARNERS AGED 50+: THE CASE STUDY OF LATVIA M. Burima, J. Tretjakova, S. Zarina	4681
THE PREPAREDNESS OF CITIZENS IN MUNICIPALITIES FOR EMERGENCY EVENTS WITH REGARD TO THE QUALITY OF LIFE J. Kubás, M. Ballay, S. Strelcová, A. Kelíšek, P. Gapová	4682
EDUCATIONAL ESCAPE ROOMS AS GAME-BASED ENVIRONMENTS F. Rodrigues, F. Gonçalves, J. Brigas, J. Gonçalves, H. Engrácio	4690
DEVELOPMENT OF AN INTERACTIVE TECHNOLOGY PLATFORM FOR AN AI CAPABILITY TEST AND SELF-LEARNING SERVICE SYSTEM FOR TAIWAN'S INDIGENOUS LANGUAGE LITERACY L. Kuo, P. Tsai, W. Chang, Y. Hsiao, C. Chiang, K. Tu	4698
THE INFLUENCE OF LOCKDOWN IN TEACHING A CHEMISTRY LABORATORY FROM THE STUDENTS' PERSPECTIVE G. Martínez, E.J. Delgado-Pujol, M. Merinero, D. Casado, J.J. González, B. Begines, A. Alcudia	4707
GREEN CENTRE FOR AN ECOLOGY OF ENVIRONMENT, MIND AND COMMUNITY O. Bertoncello, D. Sartor, R. Simonetto, L. Battistella, M. Daniel, P. Bragagnolo, S. Martinello, G. Santovito	471 3
EMPLOYING SOCIAL MEDIA TO IMPROVE UNIVERSITY FIELD TRIPS EXPERIENCE F. Rodrigues, F. Goncalves, J. Brigas, J. Gonçalves, H. Engrácio	4722
TEACHER AND STUDENT EXCHANGE ACTIVITIES IN HIGHER EDUCATION: EXPERIENCES AND REFLECTIONS FROM ENGINEERING EDUCATION S. Khoshaba, V. Haralanova	4730
USE OF VIRTUAL AND MIXED REALITY IN SECURITY EDUCATION A. Kelíšek, S. Strelcová, J. Kubás, M. Ballay, E. Sventeková	4736
COMPARATIVE OF TWO TEACHING METHODOLOGIES IN ENVIRONMENTAL ENGINEERING: FLIPPED VS. TRADITIONAL LEARNING C. Pascual, M. Quintanilla-Benito, I. Izquierdo, M. Godino, F. Marcos	4745
DECOLONISING BIOCHEMISTRY A. Stavrou, K. Garrie, D. Hindley	4750
INSIGHTS ON ENGINEERING EDUCATION 4.0: A SYSTEMATIC LITERATURE REVIEW	4751
B. Bigliardi, E. Bottani, B. Pini, L. Tebaldi, A. Volpi QUI-BOT: CHEMISTRY AND PROGRAMMING CHALLENGES FROM EARLY CHILDHOOD TO SECONDARY SCHOOL INCLUSIVELY M.I. Tarrés-Puertas, A.D. Dorado Castaño	4758
LANGUAGE CLUB AS A TOOL OF INFORMAL FOREIGN LANGUAGE LEARNING BY ADULTS M. Burima	4759
FROM POWERS TO SUPERPOWERS: SKILL DISCOVERY BY PERSONALIZED LEARNING IN DESIGN EDUCATION H. Coman, P. Opincariu	4760
THE STORYLINE APPROACH IN EDUCATION FOR SUSTAINABILITY: A TEACHER TRAINING WORKSHOP ON THE SUSTAINABLE BRUNCH I. Iliopoulou, A. Papadimitriou, A. Tsigkou, S. Petrogiannou, D. Brella, D. Kyndelerou	4768
EDUCATION FOR SUSTAINABLE ECONOMIC DEVELOPMENT – INSIGHTS FROM TURMALINA PROVINCE IN BRAZIL O. Rodrigues da Rocha, L. Morales, J.H. Coetzer, C. MacMahon	4777
THE RELATIONSHIP BETWEEN CORPOREALITY AND DISABILITY D. Chiusaroli, G. Arduini	4778
EXPERIENCING EXPERIENCE: EXERCISES AND ENHANCERS FOR THE FUTURE OF CREATIVITY IN DESIGN EDUCATION P. Onincariu. H. Coman	4784

THE USE OF SELF-ASSESSMENT AND FLIPPED CLASSROOM IN AN UNDERGRADUATE MATHEMATICS COURSE FOR MANAGEMENT STUDENTS N.R.O. Bastos	4791
SEK CAMPUS MADRID: LEARNING PATHS - OUTDOOR LEARNING IN THE CENTER OF MADRID J. Pro, W. Ivey, M. Cotelo	4799
TEACHER TRAINEES' ATTITUDES TOWARDS INTEGRATING INFORMATION TECHNOLOGIES IN ENGLISH LANGUAGE TEACHING J. Hrinak	4805
SERIOUS GAMES FOR CYBERSECURITY: EVALUATING A DESIGN FRAMEWORK V.S. Barletta, M. Calvano, F. Caruso, A. Curci, V. Rossano	4810
FROM SCRATCH TO SKETCH: TRACING METHODS OF TRANSFORMING THOUGHTS INTO REALITY P. Opincariu, H. Coman	4816
CAN SCIENCE EXIST WITHOUT DOUBT? REFLECTION ABOUT SCIENCE IN SECONDARY EDUCATION L. Vervacke, L. Van Den Broeck, B. Delanote, L. Boven, J. De Schrijver	4823
EXAMS THROUGH E-LEARNING ENVIRONMENTS O. García, F. Leon, A. Aguilar, M. Pineda	4830
ANALYSING THE EFFECTIVENESS AND OUTCOMES OF A BLENDED AND SELF- DIRECTED E-LEARNING APPROACH THROUGH THE MOODLE PLATFORM FOR STATISTICAL TRAINING IN SOCIAL SCIENCE DEGREES M. Pérez Priego, M.B. García-Moreno García, G. Gómez-Casero, J.R. Caro-Barrera	4836
THE ANALYSIS OF ENGLISH LANGUAGE AND LITERATURE TEACHER TRAINEES' OUTPUTS IN ACADEMIC WRITING COURSE AT THE TERTIARY LEVEL OF EDUCATION J. Hrinak	4842
IN-COURSE EXPERIENCES WITH A SCIOER FOR OBJECT-ORIENTED PROGRAMMING J. Nelson, J. McCuaig, M. Asch, N. Laundry	4847
ASSESSING ORGANIZATIONAL BEHAVIOR FROM AN ORGANIZATIONAL PSYCHOLOGY PERSPECTIVE: DEVELOPMENT AND APPLICATION OF A HOSPITAL TEACHING CASE J.P. Czakert, J.A.M. Reif, R. Berger	4857
CAN HISTORY REPEAT ITSELF? PHILOSOPHICAL QUESTIONS TO ENHANCE STUDENTS' CRITICAL THINKING ABOUT HISTORY B. Delanote, L. Van Den Broeck, L. Vervacke, J. De Schrijver	4864
CRUSTACEANS, MOLLUSCS AND THEIR INVOLVEMENT IN MARINE WATER POLLUTION: AN EXPERIMENTAL EDUCATIONAL PROJECT TO INVOLVE THE PRIMARY SCHOOL IN CURRENT ENVIRONMENTAL ISSUES G. Massarin, S. Vecchiato, E. Piva, S. Pacchini, S. Schumann, M. Bellio, P. Irato, G. Santovito	4871
"HOUSE NEPAL": HOW A BUILDING WORKSHOP CAN SUPPORT AND PROMOTE THE EXCHANGE OF KNOWLEDGE ON MATERIALS AND CONSTRUCTION TECHNIQUES	4881
M. Lidón de Miguel, V. Cristini, F. Vegas López-Manzanares, C. Mileto, N. Adhikary WHATSAPP AS A TOOL FOR COLLECTING VOICE NOTED ORAL JOURNALS FROM PARTICIPANTS IN A SHARED HOME READING INTERVENTION A. Dillon, K. Gallagher, C. Habak, S. Saqr, Y. Alramamneh	4889
AN APPROACH TO IMPROVE THE MANAGER'S SKILLS IN THE DECISION-MAKING PROCESS E. Mitan	4890
THE CULTURAL VALUES OF EARTHEN ARCHITECTURE: A HERITAGE EDUCATION EXPERIENCE IN NEPAL V. Cristini, M. Lidón de Migue, C. Mileto, F. Vegas López-Manzanares, N. Adhikary	4900
TEACHERS' SURVEY ON THE TEACHING OF COMPUTING AS A COMPULSORY SUBJECT FOR PUPILS OF AGE 8 E. Stankov, M. Jovanov, M. Jancheski	4906
IMPROVING MOTIVATION IN SECOND LANGUAGE ACQUISITION THROUGH DIGITAL TOOLS D. Popa, I. Cora, V. Borcan	4916

LEARNING MATERIALS CONTAINING MULTIMEDIA: THE EXPERIENCE OF SECONDARY SCHOOL TEACHERS IN ESTONIA L. Feklistova, M.H. Tiik	4922
DEVELOPING A COLLABORATIVE LEARNING APPLICATION TO SUPPORT EFFECTIVE STUDENT COLLABORATION IN HYBRID LEARNING ENVIRONMENTS S. O'Neill, A. Mooney	4931
STIMULATING STUDENTS IN LOGICAL THINKING AND IMAGINATION THROUGH A NEW MULTI-ANALYSIS METHOD - A SINO-ITALIAN COLLABORATIVE CLASS EXPERIENCE L.M.F. Fabris, M. Li, V. Labriola	4937
THE IMPORTANCE OF DATA VISUALISATION IN INTRODUCTORY STATISTICS COURSES IN SOCIAL SCIENCES DEGREES J.R. Caro-Barrera, M.B. García-Moreno García, C.A. Jara Alba, M. Pérez Priego	4943
WHEN STUDENTS TAKE THE ROLE OF INSTRUCTIONAL DESIGNERS <i>M. Banek Zorica, J. Klindžić, S. Spiranec, D. Kos</i>	4952
POST COVID-19 PANDEMIC ON MODALITY PREFERENCES, EXPERIENCES, AND FACTORS CONTRIBUTING TO STUDENTS' SUCCESS IN MATHEMATICS COURSES M. Bode, S. Devi	4960
DESIGN OF CONTEXT AWARE MOBILE APPS: A USE CASE CENTERED TEACHING APPROACH BASED ON VISUAL PROGRAMMING M. Zimmermann, C. Merschroth, G. Seilheimer	4970
ILARGI PROJECT: PROMOTION OF EFFICIENCY IN BUILDING THROUGH STUDENTS AND STEM PROJECTS P. Sarriugarte-Onandia, E. Trebolazabala, J. Aldasoro, A. Picallo-Perez	4978
BUILDING AND STRENGTHENING THE ENTREPRENEURIAL UNIVERSITY - TAPPING INTO THE POTENTIAL OF LIBRARIES S. Spiranec, M. Banek Zorica, D. Kos	4979
INVESTIGATING THE IMPACT OF COLLABORATIVE LEARNING ON UNDERGRADUATE COMPUTER SCIENCE STUDENTS S. O'Neill, A. Mooney	4986
EPORTFOLIOS AND SELF-EFFICACY: GAUGING BEGINNING DESIGN STUDENTS' CONFIDENCE LEVELS USING EPORTFOLIOS C. Fulford Iii, R. Nobles	4993
YOUTH PARTICIPATION WITHIN THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT: A PEDAGOGICAL PERSPECTIVE BASED ON A QUALITATIVE CONTENT ANALYSIS M. Ratotti, D. Bianchi, L. Carriera	4998
IDENTIFICATION AND SYSTEMATISATION OF REGULAR ERRORS IN RESEARCH PROTOCOLS SUBMITTED FOR ANALYSIS BY AN ETHICS COMMITTEE: THE EXPERIENCE OF ESCOLA SUPERIOR DE SAÚDE – INSTITUTO POLITÉCNICO DO PORTO	5005
D. Tavares, A. Cruz, A. Machado, A.P. Cabral, H. Sousa, H. Curado, I. Faria, M.J. Gonçalves, M.M. Amorim, P. Lopes, P. Monteiro	
STUDENTS' OPINIONS ON APPLICATION OF DIGITAL GAME-BASED LEARNING STRATEGY IN EDUCATION AT FACULTY OF EDUCATION R. Pondelíková, L. Lipárová	5010
IMPROVING OF MATHEMATICAL EDUCATION OF GENERATION Z N. Krivoňáková, I. Hrivová	5020
WE SPEED UP: PAPER-BASED DOCTORAL DISSERTATIONS GIVE RISE TO NEW BIAS Z. Baracskai, A. Nemeth, B. Tamas	5027
THE IMPACT OF DOCTORAL STUDY ON THE DEVELOPMENT OF PROFESSIONAL IDENTITY AND INDIVIDUAL CONCEPTS OF EDUCATOR PROFESSIONALISM WITHIN THE CONTEXT OF EDUCATION SETTINGS L. Devlin, R. Morgan Guthrie	5033
QUESTIONS AND SUGGESTIONS: WHAT KIND OF INFORMATICS EDUCATION IS NEEDED AND HOW CAN WE DELIVER IT? N. Annuš	5039
YOUTH AND OUT OF SCHOOL CONTEXTS: FIRST FINDINGS OF A NARRATIVE REVIEW ABOUT CRITICAL THINKING WITHIN THE 21ST-CENTURY SKILLS M. Ratotti	5045

DEVELOPMENT OF A PEDAGOGICAL DIAGNOSTIC INSTRUMENT "PROFILER OF ARTISTIC POTENTIAL" L. Lipárová, R. Pondelíková	5055
USABILITY OF ARTIFICIAL INTELLIGENCE TO CREATE PREDICTIVE MODELS IN EDUCATION N. Annuš	5061
CRITICAL THOUGHT IN OBSTETRIC TEACHING V. Henriques	5066
EDUCATION FOR SUSTAINABLE DEVELOPMENT D. Smolčić Jurdana, R. Agbaba	5070
ANALYSIS OF TOOLS FOR GENERATION OF EDUCATIONAL CONTENT USING ARTIFICIAL INTELLIGENCE I. Blagoev, G. Vassileva, V. Monov	5078
ARTIFICIAL INTELLIGENCE AND MEDIA COMPETENCE: A SYSTEMATIC LITERATURE REVIEW ON WEB OF SCIENCE O. Vite-León, C. Poggi-Parodi, J. Lopera-Moreno	5087
ADAPTING COMPANY EMPLOYEE TRAINING IN SALES AND MANUFACTURING SECTORS USING VIRTUAL REALITY: A CASE STUDY COMPARISON S. Morrissey, K. Maye, K.J. Heinz Tegtmeyer, M. Casey, J. Moolman, J. Walsh	5095
CONCEPTUAL MODEL REPORT: A SIGNIFICANT ELEMENT FOR PEDAGOGICAL STRATEGIES IN CLINICAL TEACHING V. Henriques	5104
HOW TO IMPROVE LIFELONG LEARNING WITH PSYCHOLOGICAL MANAGEMENT J. Taylor	5109
LEARNING PREFERENCES IN HIGHER EDUCATION ACCOUNTING COURSES IN PORTUGAL F. Campos, F. Carvalho, R. Domingos, G. Azevedo, A.M. Bandeira, C. Góis	5114
STUDENTS OF ENVIRONMENTAL ENGINEERING AS THE MAIN CHARACTERS OF THE CLASS WITH GAME BASED LEARNING M. Quintanilla-Benito, C. Pascual, I. Izquierdo, M. Godino, F. Marcos	5123
THE EFFICACY OF ISSUING BADGES AS AN INCENTIVE DURING EMERGENCY REMOTE TEACHING: A CASE STUDY H. Schoeman, F. Fon	5129
AWARENESS OF SUSTAINABLE DEVELOPMENT GOALS OF STUDENTS IN THE SUBJECTS "STATISTICS" AND "ENERGY TECHNOLOGY" S. Gallardo, M. Lorduy-Alós, J. Marín, M.J. Palomo	5138
GROSSO GUAIO AL MUSEO DI CALCI: A DIGITAL ADVENTURE TO LEARN THE SECRETS OF THE MUSEUM OF NATURAL HISTORY OF THE UNIVERSITY OF PISA R. Barbuti, E. Bonaccorsi, M. Bondioli, P. Milazzo, P. Nepa	5147
MODELLING THE PROCESS OF IMPROVING THE ACTIVITY OF THE OFFICE OF DOCTORAL STUDIES IN UNIVERSITY L.G. Popescu, M.V. Zerbes	5155
PERSPECTIVE MATTERS: A PRELIMINARY LOOK INTO THE DIFFERENCES BETWEEN PROFESSOR AND STUDENT PERCEPTION OF TEST DIFFICULTY AND THEIR RELATIONSHIP WITH TEST PERFORMANCE I. Pesovski, R. Santos, S. Kagan	5163
AUTOMATIZED CONGRUENCE OF REVIEWERS' ASSESSMENTS AND RAW DATA FOR EDUCATIONAL OBJECTS IN COMPARATIVE QUALITY EVALUATION H. Kostadinova, G. Totkov	5170
LECTURER'S EXPERIENCES ON THE ADOPTION OF IPADS AS A TOOL FOR TEACHING AND LEARNING IN A HIGHER EDUCATION INSTITUTION D. Robertson, R. Singh	5178
EVALUATION OF THE PERCEPTION AND ATTITUDES OF UNIVERSITY STUDENTS TOWARDS ECOLOGICAL ISSUES M. Navrátilová, M. Beranová	5179
CAREER MANAGEMENT IN THE PORTUGUESE NAVY: SPECIALIZATION AS CASE STUDY J. Abreu, I. Soares	5186
E-LEARNING IN CONTINUING VOCATIONAL EDUCATION AND TRAINING OFTEN USED AND (HARDLY) ACCEPTED? C. Siegfried	5195

V. Dolci, E. Gianatti, S. Kuhzaee, B. Pini
COMBATTING STUDENT DEMOTIVATION ONLINE: LESSONS FROM QATAR R. Bianchi, B. Yyelland, A. Weber, K. Kittaneh
COOPERATIVE-LEARNING TO SUPPORT SOCIAL SKILLS IN AUTISM S. Rizzo, A. Cavallaro 5209
OPTIMIZING THE CURRICULUM IN STATE KINDERGARTENS IN ROMANIA <i>L.G. Popescu, M.V. Zerbes, O. Artene-Piloiu</i>
PARENTS' ATTITUDES TOWARDS THEIR CHILDREN'S LEISURE USE OF DIGITAL TECHNOLOGIES P. Kockova, K. Kilianova, K. Kostolanyova
PILOT STUDY: ARTIFICIAL INTELLIGENCE THROUGH THE EYES OF UNIVERSITY STUDENTS K. Kilianova, P. Kockova, L. Klubal, K. Kostolanyova
TRENDS AND CHALLENGES IN UNIVERSITY-INDUSTRY COLLABORATION: A SYSTEMATIC AND DESCRIPTIVE ANALYSIS OF LITERATURE V. Dolci, E. Gianatti, B. Pini
KNOWLEDGE OF THE KEY POLITICAL DOCUMENT BY TEACHING STAFF IN THE CZECH REPUBLIC R. Kárníková
OPEN EDUCATION RESOURCES IN HIGHER EDUCATION CLASSROOM M. Hunter, S. King
GENDER DIFFERENCES IN CLASSROOM CLIMATE PERCEPTION BEFORE P4C METHOD IMPLEMENTATION L. Kaliska
BEHIND THE NUMBERS: A DATA-DRIVEN LOOK AT ACADEMIC PROCRASTINATION AND PERFORMANCE J. Calleja-Blanco, A. Núñez-Carballosa
CRITICAL THINKING AND IDEOLOGY IN EDUCATION 5266 J. Kaliský
COMMUNITY-ENGAGED PEDAGOGY BY DESIGN: PRACTICAL STRATEGIES FOR PROMOTING TRANSFORMATIVE LEARNING C.L. Blitz, I. Yanovitzky, D. Amiel
SLOVAK FUTURE EDUCATIONAL LEADERS' EMOTIONAL INTELLIGENCE IN THE CONTEXT OF TRANSFORMATIONAL LEADERSHIP L. Kaliska
MINDFULNESS PRACTICES IN UNIVERSITY AND HIGH SCHOOL SETTINGS: A SYSTEMATIC LITERATURE REVIEW R. Baker, K. Karadjova-Kozhuharova
USING VIDEO REFLECTIONS AS AN ALTERNATIVE TO TRADITIONAL ASSESSMENTS IN INTRODUCTORY ECONOMICS M. Cameron, N. Dodamgoda, G. Piercy
MICROEXPERIMENTS, A RESPONSE TO THE CRISIS OF THE TEACHING OF PHYSICS AND MATHEMATICS IN BLENDED LEARNING A.M. Garces Madrigal, C. Alvarado Zamorano
INTELLECTUAL DISABILITY AND UNIVERSITY STUDIES - AN EXAMPLE OF INCLUSIVE EDUCATION J. Calleja-Blanco, M. Romeo-Delgado, K.P. Hernández Del Valle
ACADEMIC TEACHING: ARE WE STILL DYING BY POWERPOINT? M. Milani 5303
CAREER DEVELOPMENT FOR WOMEN IN MANAGEMENT M-A. Loiselle, D. Fortier
INVESTIGATING THE IMPACT OF A CHATBOT'S DISCLOSURE BEHAVIOR ON RAPPORT BUILDING IN STUDENT COACHING V. Mai, H. Maloko, P. Varney, A. Richert
THE SOCIAL ROLE OF DIGITAL DESIGN IN INCLUSION AND DIVERSITY: A REFLECTION-IN-ACTION APPROACH IN THE CONTEXT OF THE SKILLS FOR A NEXT GENERATION PROJECT R. Giesteira, V. Pecailes, I. Livo, G. Vila Major

A ROLE PLAY TO APPROACH COMPLEXITY TOPICS LEARNING: THE CASE OF CLIMATE CHANGE AND FOOD SYSTEM INTER-DEPENDENCIES	5329
J. Urquijo-Reguera, M.T. Gómez-Villarino, D. Pereira Jerez, J. López Santiago, M. de Francisco Alonso	
INTERNATIONAL EDUCATED NURSES' CO-DESIGN OF A VIRTUAL SERIOUS GAME C. Da Silva, A. Torres, B. Kapralos, E. Peisachovich, C. Anyinam, S. Coffey, L. Graham, A. Dubrowski	5330
CREATING A RUBRIC FOR THE STOP HYPERTENSION SERVICE-LEARNING PROJECT	5337
M. Hernández-Martín, M.D. Vicente-Torres, L. Rivera, D. Prieto, S. Benedito, N. De las Heras, A. López-Calderón, J.A. García-Donaire, M. Abad-Cardiel, N. Martell, R. Redondo-Castillejo, S.D. Paredes, D. Gómez-Garre, J.A. Issa, M.P. Montenegro, C. Contreras, V. Azcutia, M.C. Lozano-Estevan, V. Hurtado-Carneiro, R. Rodrígues-Díez, A.I. Martín-Velasco, F. Das Chagas Vasconcelos, G. Segovia, T. Priego, R. Gredilla, V. Cachofeiro, M.V. Hernández, A. Agis-Torres, P. Recio, M. Muñoz-Picos, J. Navarro-Dorado, N.F. Pascual, B. Colino, A. Gómez Del Val, I. Rodríguez-Ramiro, R. Raposo, C. Soriano, M. Sancho, V.S. Leite, J.M. Bravo, J.A. García-Baró, E. Martínez-Martínez, A. Moreno, E. Nebot, A. Sánchez-Aguilera, A. Sánchez-Pina, M.E. López-Oliva	
MENTORING OF ENGINEERING STUDENTS IN SUSTAINABLE ENTREPRENEURSHIP IN THE INNOVATOR ECOSYSTEM UNIVERSITIES-TECHNOLOGICAL CENTRES	5347
M.D. La Rubia, C. Rus-Casas, D. Eliche-Quesada, S. Jurado-Contreras, F.J. Navas-Martos	
STUDENTS' SUCCESS MONITORING: USING DECISION TREES AND SOCIAL NETWORK ANALYSIS J. Gusić Munđar, D. Munđar	5353
USES OF THE MODEL CLASSROOMS CREATED FOR THE UNAM HIGH SCHOOL PROGRAM	5359
A.M. Ramírez Bedolla, M. Zúñiga González, M.H. Avila Arciniega	
MENTORING BOT FOR SCALABLE REVIEW SUPPORT U.U. Shegupta, R. Schmidt, W. Hardt	5368
REFLECTIONS OF MEXICAN UNIVERSITY PROFESSORS ON THE EXECUTION OF THEIR TEACHING-LEARNING SEQUENCES C. Alvarado Zamorano, R. Castañeda, G. de la Cruz Martinez, A.L. Eslava Cervantes, A.M. Garces Madrigal, J. Ramirez Ortega	5377
THE INCLUSION OF YOUNG PEOPLE WITH DISABILITIES IN THE UNIVERSITY ENVIRONMENT THROUGH THE FORMATION OF A SOCIALLY ACTIVE POSITION N. Cebotaru, S. Racu	5386
DIFFERENCES IN PARENTAL SUPPORT FOR CHILDREN'S PHYSICAL ACTIVITIES WITH REGARD TO THE LEVEL OF PARENTS' PHYSICAL ACTIVITY J. Alić, S. Jenko Miholić, D. Kuna	5390
MORAL EDUCATION TRANSFORMATIONS IN THE SLOVAK STATE EDUCATIONAL PROGRAM J. Kaliský	5396
ANALYSIS ABOUT THE EFFECTIVENESS OF THE INTEGRAL EDUCATION PROGRAM (PEI) IN ELEMENTARY EDUCATION I STUDENTS OF A PUBLIC SCHOOL IN THE STATE OF SÃO PAULO - BRAZIL R. Ponchio, A. Nobel, A. Cara, I. Ribeiro	5402
WHEN THE 'M' IN 'STEM' STANDS FOR MUSIC: SOME IDEAS FOR TEACHING ENVIRONMENTAL TECHNOLOGY R.J. Aguado, L.V. Merchante, Q. Tarrés, G.A. Bastida, A. Mazega, M. Delgado-Aguilar	5409
A NEW MODEL OF INTEGRATED FINAL MASTER PROJECT IN ACTUARIAL SCIENCE M.C. Mayorga-Toledano, A. Fernández-Morales, E. Trigo-Martínez, O. Gómez Pérez-Cacho	5410
DEVELOPMENT OF EXPERIENTIAL LEARNING PROJECTS IN THE ONLINE EDUCATIONAL ENVIRONMENT P. Norton, E. Mosser, P. Jain, F. Krebs, S. Jennings	5416
USE OF THE ELEVATOR PITCH METHODOLOGY TO INTEGRATE THE CIRCULAR ECONOMY IN THE FIELD OF BUSINESS MANAGEMENT AND FINANCE E. Escrig-Olmedo, M.A. Fernández-Izquierdo, I. Ferrero-Ferrero, M.J. Muñoz-Torres, J.M. Rivera-Lirio	5417
FACTORS INFLUENCING EMPLOYABILITY OF NEETS 25+ IN SELECTED EUROPEAN COUNTRIES P. Fanta	5424
EVALUATING THE TECHNICAL EFFICIENCY IN HIGHER EDUCATION INSTITUTIONS THROUGH MULTI-DIRECTIONAL ANALYSIS K. Murillo	5429

RELATIONSHIP BETWEEN DARK TRIAD TRAITS AND SUBJECTIVE PERCEIVED PERSONAL EXISTENTIAL FULFILLMENT IN FUTURE TEACHERS P. Skobrtal, R. Pospíšil	5437
EFFECTS OF VISUALIZATION OF MATHEMATICAL TERMS WITH THE EMPHASIS ON BETTER UNDERSTANDING I. Ilavska, J. Gazdikova, L. Kontrova	5444
REMOTE LEARNING AND ASSESSMENT OF GREEK SIGN LANGUAGE IN THE UNDERGRADUATE CURRICULUM IN COVID TIME G. Sapountzaki, E. Efthimiou, SE. Fotinea, K. Papadimitriou, G. Potamianos	5452
EXPLORING TRANSITION INTO INDUSTRY 4.0 WITH CASE STUDIES ON FOUR ENGINEERING EDUCATION DISCIPLINES D. Shetty, C. Campana	5460
OPEN KNOWLEDGE IN HIGHER EDUCATION: CLASSROOM CIBERIMAGINARIO AS A TOOL IN THE AREA OF COMMUNICATION SCIENCES M.C. Galvez de la Cuesta, M. Gértrudix Barrio, M.C. Gertrudis Casado, A. Carbonell Alcocer, J. Romero Luis, M. Rajas Fernández, M. Baños Fernández, E. Taborda Hernandez, L. Matosas López, R. Arcos Martín, J.L. Rubio Tamayo	5465
INCLUSIVE DESIGN, STORYTELLING AND TEACHER TRAINING P. Aiello, F. Sabatano, I. Viola, F. Capodanno	5466
MODERNIZATION OF THE EDUCATIONAL PROCESS IN THE MATHEMATICS STUDY PROGRAM USING GRAPHIC DIGITAL TECHNOLOGIES I. Ilavska, J. Gazdikova, L. Kontrova	5471
EFFECT OF A SCHOOL-BASED MULTIDISCIPLINARY HEALTH PROGRAM ON OBESITY PARAMETERS IN ADOLESCENTS FROM MEXICO M.A. Enríquez Martínez, J.A. Valadez Lira, A. Cocca, M. Cocca, O. Ceballos Gurrola	5477
ENHANCING MULTILINGUAL AND INTERCULTURAL COMPETENCES THROUGH LANGUAGE ETWINNING A. Pakula	5478
LANGUAGE ACQUISITION BY MINORITY CHILDREN IN LATVIAN PRESCHOOL EDUCATION PROGRAMMES: PARENTS' VIEWPOINTS S. Zariņa, M. Burima, J. Davidova, S. Ignatjeva, S. Mickeviča	5486
INTEGRATING SOCIAL INCLUSION, GENDER PERSPECTIVE AND SUSTAINABILITY INTO THE SKILLS DEVELOPMENT PROCESS IN HIGHER EDUCATION M.C. Mayorga-Toledano, A. Fernández-Morales, O. Gómez Pérez-Cacho, E. Trigo-Martínez, R. Moreno-Ruiz, J.D. Cisneros-Martínez, B. Lacomba-Arias	5487
QUANTIFICATION OF THE CONTRIBUTION OF DIGITIZED TECHNIQUES IN INCREASING STUDY PERFORMANCE IN CONTEMPORARY DENTISTRY M.E. Antohe, C.G. Dascalu, I. Gradinaru	5494
"I NEED YOUR HELP TO STAY IN SCHOOL": THE ROLE OF PERSONAL AND INSTITUTIONAL FACTORS IN THE INTENTION TO DROP OUT I.D. Stanciu, M.L. Maier, N. Cobarzan	5500
EXPERT SYSTEMS AND SIMULATION METHODS FOR OPTIMIZING FORMATIVE ACTIVITY IN DENTISTRY I. Gradinaru, C.G. Dascalu, M.E. Antohe	5511
DON'T UNDERESTIMATE MICROLEARNING: UNIVERSITY STUDENTS' PERSPECTIVE AND POSSIBLE FUTURE SCENARIOS A. Rof, A. Bikfalvi, P. Marques	5517
SUMMER SCHOOLS FOR INTERNATIONAL STUDENTS: INTERCULTURAL SENSITIVITY AND LANGUAGE DEVELOPMENT S.C. Munteanu, AM. Capraru, S. Paduretu	5525
UNDER THE KNIFE: COMPENSATORY TOOLS IN THE ENGLISH FOR NURSING (EFL) CLASSROOM J. Duarte	5529
UNPACKING IMMERSION TEACHERS' EXPERIENCES OF HYBRID PROFESSIONAL DEVELOPMENT T. O Ceallaigh, K. Ní Chlochasaigh	5537
ENGLISH FOR NON-ACADEMIC STAFF: NAVIGATING INTERNATIONALIZATION, TACKLING INTERCULTURAL COMMUNICATION AND DEVELOPING LANGUAGE COMPETENCE	5538
S. Paduretu, A.M. Capraru	

INTERNATIONAL STUDENTS LEARNING EXPERIENCE IN A POST COVID ERA: PREFERENCE ON DELIVERY MODEL FOR ACADEMIC ENGLISH SUPPORT A. Hidalgo-Bastida, C. Collier, S. Sashikumar	5542
THE TRANSFORMATION OF TEACHERS' TRAINING POLICY IN ITALY: TRACING CHANGES IN THE AFTERMATH OF THE COVID-19 CRISIS A. Favella	5547
TEACHING PHOTOGRAPHY IN SPECIAL NEEDS EDUCATION D. Gounari, A. Papadopoulou	5555
SPIKE UP PRIME INTEREST IN SCIENCE AND TECHNOLOGY THROUGH CONSTRUCTIONIST GAMES P. Petrovič, F. Agarshev	5562
LATENT PROFILE ANALYSIS OF COMPUTING IDENTITY: A STUDY OF ELEMENTARY SCHOOL STUDENTS IN COMPUTER SCIENCE IMMERSION PROGRAM B. Kim, L. Peterson, C. Scharber	5571
ADDRESSING STUDENTS ALTERNATE CONCEPTIONS OF CHEMISTRY AT THE TRANSITION FROM SECONDARY TO TERTIARY STUDIES J. Lovatt, O.E. Finlayson	5579
SUPPORT FOR MINORITY LEARNERS' SUCCESSFUL STUDIES IN LATVIAN: VIEWPOINTS OF PRIMARY SCHOOL TEACHERS S. Zarina, J. Davidova, M. Burima, L. Krastiņa	5586
ESSENTIAL BUSINESS-TO-BUSINESS SELLING SKILLS IN TODAY'S DIGITAL ERA: THE EMPLOYERS' PERSPECTIVE M. Berger, J.P. Koch, V. Koch, B.M. Zunk	5587
ALIVE AND KICKING: REVAMPING ASSESSMENT IN THE ENGLISH FOR NURSING CLASS J. Duarte, A. Albuquerque	5592
DYNAMIC AND ACTIVE ASSESSMENT IN MECHANICAL ENGINEERING I. Llop-Harillo, M.C. Mora	5600
DEVELOPMENT AND EVALUATION OF A TRAINING FOR VOCATIONAL TEACHERS AND TRAINERS TO DESIGN PROBLEM-ORIENTED TECHNOLOGY-BASED EXAMINATION TASKS H. Meiners, S. Seeber	5601
LEARNING SATISFACTION STUDENTS OF A NOVEL CONSTRUCTIVIST PROBLEM BASED-LEARNING (PBL) STRATEGY THROUGH VIDEO IN PATHOPHYSIOLOGY V.S. Leite, M. Hernández-Martín, S. Benedito, A. Sánchez-Pina, L. Rivera, D. Prieto, C. Contreras, R. Redondo-Castillejo, J.A. Issa, A. Gómez Del Val, J. Navarro-Dorado, M. Muñoz-Picos, N.F. Pascual, B. Colino, M.P. Montenegro, C. Soriano, J.J. Merino, A. Agis-Torres, B. Climent, P. Recio, R. Raposo, M. Hernández, M.E. López-Oliva	5602
NIGHTMARE OR GAMECHANGER: PROJECT BASED LEARNING OF PROJECT MANAGEMENT FOR GENERATION Z: BEST PRACTICES FOR BLENDED LEARNING J. Grinninger, M. Priester	5608
INTERNATIONALIZATION OF HIGHER EDUCATION IN EASTERN EUROPE A. Mucsi, E. Malota, T. Gyulavári	5619
USING PROGRAMMABLE DRONE IN EDUCATIONAL PROJECTS AND COMPETITIONS P. Petrovič, P. Verčimák	5624
THE USE OF A SERVICE-LEARNING METHODOLOGY FOR END-OF-DEGREE PROJECTS IN INDUSTRIAL ENGINEERING-RELATED DEGREES A. Jiménez-Suárez, A. Cortés, S. Cifuentes, S. García-Rodríguez	5634
THE MEDIATING EFFECT OF ATTITUDES TOWARDS STATISTICS AND TECHNOLOGY IN UNIVERSITY STUDENTS O. Silva, Á. Sousa	5642
EFFECTS OF THE COVID-19 PANDEMIC ON READING AND WRITING SKILLS OF ELEMENTARY STUDENTS WITH AND WITHOUT LEARNING DISABILITIES IN GREECE: EDUCATORS' PERSPECTIVES S. Tzivinikou, A. Moutavelis, Z. Krokou, M. Louari, P. Papadimitriou	5649
THE POWER OF GAME JAMS UNDER LOCKDOWN E. Pietrikova	5658
SCHOOL OF THE FUTURE THROUGH THE EYES OF SLOVAK STUDENTS I. Fabus, A. Chrenkova, Z. Kolarovszka, D. Tothova	5667

INTERNATIONAL STUDENTS' TRANSITION INTO THE UK'S HIGHER EDUCATION A. Hidalgo-Bastida	5674
GENERATIVE DESIGN IN INTERIOR DESIGN: EXAMINING ITS FEASIBILITY AND IMPLEMENTATION IN PRACTICE AND EDUCATION H. El-Hammali, M. Suleiman	5675
IMPACTS OF YOUNG PEOPLE'S BEHAVIOR ON THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES O. Silva, Á. Sousa, J. Nunes	5676
DISRUPTIVE TECHNOLOGIES IN STEM EDUCATION – A METHOD FOR BROADENING THE SPECTRUM OF IT TEACHER EDUCATION G. Bujdosó, K. Teperics, T. Roskó, E. Jász, K. Szilágyi-Czimre, E. Molnár, J. Kapusi, C.M. Novac, O.C. Novac	5684
A FRAMEWORK FOR EVALUATING STEAM EDUCATIONAL PRACTICES P. Russo, N. Spyropoulou, A. Kameas	5693
GUIDED PLAY AND ALGORITHMIC THINKING: A STUDY IN EARLY CHILDHOOD EDUCATION M. Figueiredo, D. Gomes, V. Alves	5700
ARE WE ASSESSING TEACHER STUDENTS IN WAYS THAT COULD HELP THEM TO BECOME GOOD TEACHERS? -THE EXAMPLES ARE FROM PHYSICAL EDUCATION A.R. Jenssen	5701
IS CHATGPT GOOD FOR YOUR STUDENTS? A STUDY DESIGN OF THE IMPACT OF AI TOOLS ON THE STUDENT EXPERIENCE IN LEARNING JAVA M.L. Maher, Y. Tadimalla, D. Dhamani	5702
TOWARDS A HOLISTIC COMPETENCE FRAMEWORK FOR INCLUSIVE STEAM EDUCATORS G. Sakellaropoulou, N. Spyropoulou, A. Kameas	5710
EFFICACY OF BLENDED LEARNING AND TEACHING FOR HE PHYSICS COURSES V. Tymms, Y. Andrew	5718
CHILDREN'S LITERATURE AND PERSONAL AND SOCIAL DEVELOPMENT IN EARLY CHILDHOOD EDUCATION: A PRACTITIONER RESEARCH STUDY M. Figueiredo, A.C. Fernandes, I. Aires de Matos	5719
EXPERIENCES IN EDUCATION: UNDERSTANDING THE ROLE OF PSYCHOMETRIC TESTING TO PREDICT OUTCOMES OF ADULT LEARNERS RETURNING TO EDUCATION ON GOVERNMENT FUNDED RESKILLING INITIATIVES S. Creaner, G. Creaner	5720
IMMERSION-SPECIFIC TEACHER COMPETENCIES: A ROADMAP FOR SUSTAINABLE CHANGE T. O Ceallaigh, G. Nig Uidhir	5730
RESEARCH ON COMPETENCY OF NURSES: A COMPARISON WITH WORKFORCE COMPETENCY T. Nishizono, Y. Minoura	5731
DIVERSITY IN HIGHER EDUCATION: STUDENTS' GRITS AND FEARS G. Santos, D. Dias, T. Candeias, E. Pinto da Costa, E. Justino	5732
LECTURE BOARD GAME B. Kuoch, R. Angotti, K. Sung	5733
A CRITICAL REVIEW OF THE EDUCATIONAL SYSTEM IN GHANA, WEST AFRICA P. Yeboah-Hammond, E. Kumi, E. Glakpe	5740
THE ROLES OF INSTITUTIONS IN ADDRESSING THE NEEDS OF STUDENTS FROM MARGINALISED BACKGROUNDS IN HIGHER EDUCATION IN NAMIBIA M. Sheyapo, C. Haihambo, E. Mbongo	5749
LITERA BRAILLE: PROTOTYPING AND DEVELOPMENT OF LOW-COST DEVICE BASED ON BRAILLE TYPEWRITER T. Ribeiro Alves, C. Pinto Pereira, T. Cerqueira de Jesus	5759
DISTANCE LEARNING SYSTEM FOR SHARING DEVICES BETWEEN MULTIPLE LEARNING INSTITUTIONS WITH USE OF REMOTE ACCESS J. Baláži, L. Vacho, M. Baráth, P. Kósa, B. Švidraň	5769
THE EFFECT OF ENGAGING WITH IN-CLASS POLLS, BOTH OF A QUALITATIVE AND QUANTITATIVE NATURE, ON STUDENTS' FINAL GRADES C. Godfrey, P. Perlman-Dee	5774

EXPLORING DIGITAL TOOLS IN HUMANITIES FOR UNDERGRADUATE STUDENTS IN LINGUISTICS J. Kuzmina	5775
IMMERSIVE LEARNING ENVIRONMENTS: DO THEY IMPROVE STUDENT SKILLS OR CAUSE COGNITIVE OVERLOAD? A LITERATURE REVIEW J.P. Graham, J. Murray, B. Allen	5780
EDUCATIONAL SWITCHED MODE POWER SUPPLY TEST BENCH, FOR LABORATORY EXPERIMENTS AND TEACHING C. Nagy, D.C. Zuidervliet, P.J. van Duijsen	5787
COVID-19: THE CONSTRAINT AND ENABLER IN CHANGING THE TEACHING AND LEARNING ENVIRONMENT K. Naidoo, H. Schoeman	5798
ORGANIZATIONAL COMMUNICATION AND SOCIAL RESPONSIBILITY: A CASE REPORT OF A VIRTUAL EXCHANGE BETWEEN BRAZIL AND PORTUGAL P. Patrício, A. Torres, P. Pinheiro	5803
TEACHING POWER ELECTRONICS USING MODELING AND SIMULATION <i>T.R. Kersenss, D.C. Zuidervliet, P.J. van Duijsen</i>	5812
ENHANCING STUDENT SKILLS TO UNDERSTAND GLOBALIZATION AND EMERGING CHALLENGES I. Casquilho-Martins, H. Belchior-Rocha, D. Alves	5822
TRENDS IN EXECUTIVE EDUCATION FOR INTERACTIVE DIGITAL DESIGN FIELD: A TEN-YEAR CASE STUDY B. Nobre, E. Duarte	5828
ACTIVE LEARNING IN A VOCATIONAL EDUCATION AND TRAINING PROGRAMME N.R.O. Bastos, M.P. de Sousa Oliveira, I. Ferreira	5837
ENHANCING CRITICAL THINKING SKILLS IN THE FLUID AND THERMAL SCIENCES M. Clark, E. Gibson, E. Glakpe	5846
LEARNING WITH A NEWBORN BEE – DESIGN AND DEVELOPMENT OF A VIDEOGAME V. Alves, N. Carapito, C. Sousa, R.P. Duarte, J. Braguez, F. Fonseca, J. Cardoso, B. Lamelas, C.A. Costa	5852
PROMOTING BEST TEACHING PRACTICES A. Hassan, J. Crandall	5853
COMPETENTIAL METHODOLOGICAL CHANGE IN ENGINEERING: COMPUTER SCIENCE AS A MEANS FOR THE LINK BETWEEN CONCEPTS AND THE MODELLING AND CONSTRUCTION OF LOGICAL STRUCTURES M. Dádamo, S. De Federico, G. Cánaves	5858
EMBEDDING CULTURE AND LOCAL HERITAGE ELEMENTS IN LEARNING EXPERIENCES FOR THE DEVELOPMENT OF DIGITAL COMPETENCIES IN THE SENIOR POPULATION	5869
M. Amorim, R. Castro Madureira, M. Rodrigues, M. Ferreira Dias, C. Alves, M. Madaleno BACK TO THE POST-PANDEMIC CLASSROOM: LESSONS LEARNED FROM TEACHING CYBERSECURITY ONLINE B. Taylor, S. Kaza, P. Zaleppa	5876
UNDERSTANDING THE CHALLENGES OF E-LEADERSHIP: THE IMPORTANCE OF COMMUNICATION COMPETENCIES FOR REMOTE WORK CONTEXTS M. Amorim, B. Lins, C. Silva, R. Castro Madureira, M. Ferreira Dias, M. Rodrigues	5877
COMPARISON BETWEEN POWERPOINT SLIDES AND VIDEOS IN EFFECTIVENESS FOR E-LEARNING W. Weng, M. Zheng	5887
RETHINKING TEACHING AND LEARNING IN A LARGE LECTURE COMMUNICATION COURSE N. Linardopoulos	5894
MATLAB GUI EXECUTABLE FOR MATRIX ALGEBRA L. Villegas, F. Li	5895
ISOCIAL: VIRTUAL SOCIAL SKILLS INTERVENTION FOR NEURODIVERSE INDIVIDUALS WITH HIGH FUNCTIONING AUTISM J. Bruno	5900

COMPARATIVE RESULTS OF PROGRAM EVALUATION FROM BRAZILIAN SHORT-TERM COURSES	5905
B. Wilges, P.R. Martins, V.M. Silva, V.B. Martins, R. Cislaghi, G.P. Mateus, D.H. Longo	
A MATLAB GUI FOR TEMPERATURE DEPENDENT UNDERGRADUATE LAB EXPERIMENTS E. Mayere, D. Crist Mayere, P. Muñor Cratilla V. I. Cadilla Zentralia	5913
E. Momox, D. Cajas-Morales, R. Muñoz-Castillo K, J. Cedillo-Zertuche	
BUILDING COMPUTER SCIENCE EDUCATION CAPACITY IN MIDDLE SCHOOLS: A UNIVERSITY-DISTRICT PARTNERSHIP C.L. Blitz, D. Amiel	5922
EMERGENCY GAMIFICATION AND 3D SLIDES AS A TOOL FOR ONLINE LEARNING IN COVID19	5931
L. Guerra-Menéndez, B. Crilly-Montague, M.V. Naval López, J. Del Pino, P.V. Moyano-Cires	
DIGITAL SKILLS MATRIX WITH FOCUS ON TEACHING AND LEARNING ACTIVITIES A.M. Ramírez Bedolla, G.P. González Alarcón, S. García Garibay, M. Avila Quintana	5937
· ·	E 0.46
RE-IGNITING CREATIVE CULTURAL SCHOOLS P. Lane, B. Mills, J. Benavides, E. Gomez	5946
ARTIFICIAL INTELLIGENCE IN EDUCATION: ETHICS AND TRUST CHALLENGES D. Pantazatos, M. Grammatikou, V. Maglaris	5951
USING FLIPPED CLASSROOMS AND ACTIVE LEARNING ACTIVITIES IN STEM EDUCATION: ENHANCING STUDENT ENGAGEMENT AND LEARNING EFFECTIVENESS R. Azimzadeh, S. Rodchua, M. Watson	5958
	E050
GATHERING TO LEARN, GROW, AND COLLABORATE FROM ANYWHERE A.C. Vidaña Montes	5959
DEVELOPING GROWTH MINDSET IN COLLEGE CLASSROOMS R. Azimzadeh, A. Danley, S. Rodchua, M. Watson	5963
METHODOLOGY FOR THE DEVELOPMENT AND DESIGN OF EDUCATIONAL PROGRAMS IN KAZAKHSTAN A. Niyazgulova, Y. Daineko, D. Tsoy	5964
BLOOD FLOW DESCRIPTION USING MATH MODEL AND ITS VISUALIZATION IN UNITY 3D ENGINE AS A PART OF MEDICAL EDUCATIONAL SIMULATOR B. Alipova, Y. Daineko, F. Tokmukhamedova, M. Ipalakova, ZH. Bolatov, D. Tsoy	5971
DIGITAL TRANSFORMATION OF EDUCATIONAL ECOSYSTEM AND GRANTS SUPPORT SYSTEM IN SCHOOLS 1. Pihir, M. Tomičić Furjan, K. Tomičić-Pupek	5976
PROJECT-BASED LEARNING: CREATING AN IMMERSIVE EXPERIENCE FOR LEARNERS A. Ko	5982
COPES MODEL BASED UX DESIGN AND IMPLEMENTATION WITH A MOBILE APP TO ENHANCE SPONTANEOUS REVIEW HABITS FOR SECOND LANGUAGE LEARNING	5983
R. Nakagawa, Y. Ohkawa, X. Zhao, A. Takahashi, T. Ohyama, T. Mitsuishi, Y. Hayakawa	
COMPUTATIONAL THINKING IN CHILDHOOD MATHEMATICS EDUCATION: TOWARD A STRATEGIC USE OF DIGITAL AND COMPUTATIONAL LITERACIES IN TEACHER PREPARATION H. Haydar	5988
EXPLORING STUDENT EXPERIENCES AND ATTITUDES TOWARDS COMPUTER-BASED TESTING AND FEEDBACK IN MATHEMATICS EDUCATION T. Kraav, K. Orav-Puurand, H. Jukk, S. Pihlap, E. Kirsiaed	5994
METAVERSE IN THE PROCESS OF ARCHITECTURAL PROJECTS M. Valiente Lopez, N. León-Martínez, S. Moyano Sanz, A. Verdú Vázquez	5999
THE SUPPORT FOR TEACHERS AND SCHOOL LEADERS IN THEIR PROFESSIONAL GROWTH AND PERSONAL DEVELOPMENT A. Mišianiková, V. Hubeňáková, K. Kozelková, K. Lukáčová, V. Ondová, M. Babinčáková, D. Šveda	6007
THE IMPORTANCE OF TECHNOLOGY-ENHANCED BIOLOGY EDUCATION IN PRIMARY AND SECONDARY SCHOOLS A. Mišianiková, A. Lešková	6016
WEBQUEST FOR THE DEVELOPMENT OF INTERCULTURAL COMMUNICATIVE COMPETENCE OF ITALIAN SECOND LANGUAGE LEARNERS A. Pakula, T. Sbardella	6026

APPLICATIONS OF VIRTUAL AND AUGMENTED REALITY IN DENTISTRY EDUCATION S.M.N. Haider, D. Topalli	6034
SELF-EFFECTIVENESS OF ENGINEERING STUDENTS IN FACE-TO-FACE, DISTANCE AND REMOTE ACCESS LEARNING T. Ivanova, N. Kafadarova	6043
CURRENT TRENDS IN THE DEVELOPMENT OF PROFESSIONAL LITERACY IN CRITICAL SOCIAL WORK EDUCATION M. Gruslytė	6050
THE RELEVANCE OF CREATIVITY, CRITICAL THINKING, COMMUNICATION, AND COLLABORATION IN UNIVERSITY STUDENTS: A LONGITUDINAL FOLLOW-UP STUDY IN THE FIRST TWO ACADEMIC YEARS J.F. Luesia, I. Benítez, P.P. Pérez, J.F. Plaza Sánchez, R.M. Vilches-Cansino, M. Sánchez-Martín	6056
BREAKING DOWN GEOGEBRA: TWO DIMENSIONS OF THE GEOGEBRA SOFTWARE APPLICATION M. Jancheski, S. Jancheska, M. Jovanov, E. Stankov	6061
DEVELOPMENT OF A SYSTEM OF LABORATORY EXERCISES FOR THE DISCIPLINE "ELECTRONICS" USING THE METHODS: FACE-TO-FACE LEARNING, DISTANCE LEARNING WITH SIMULATIONS AND REMOTE ACCESS LEARNING T. Ivanova, N. Kafadarova, S. Milev	6071
EFFECTS OF AN EXERGAME ON MENTAL ROTATION AND MENTAL CALCULATION P. Fargier, V. Cécé, N. Burel, C. Roure, V. Lentillon-Kaestner	6076
FINDING A SUITABLE METHOD FOR TEACHING PHRASEOLOGICAL UNITS D. Kuzmanovska, V. Koceva, A. Vitanova-Ringaceva, S. Kirova, B. Ivanova	6085
"FLIPPED CLASSROOM" – THE FUTURE OF MODERN TEACHING A. Vitanova-Ringaceva, D. Kuzmanovska, V. Koceva, B. Ivanova, S. Kirova	6093
INVESTIGATING FACTORS NECESSARY FOR THE DEVELOPMENT OF EFFECTIVE STUDENT RECRUITMENT CAMPAIGNS: A SURVEY STUDY R. Chinoracky, N. Stalmasekova, M. Majercakova, L. Madlenakova	6098
SLOVAK PARENTS' IMPLICIT THEORIES ABOUT LEARNING BY VERY YOUNG CHILDREN: A FOCUS GROUP STUDY P. Gavora, D. Dvorská, J. Medveďová, Z. Geršicová	6106
COMPARING THE EFFECTIVENESS OF FACE-TO-FACE, EMERGENCY REMOTE, AND HYBRID TEACHING APPROACHES: A CASE STUDY OF AN INFORMATION MANAGEMENT SCHOOL Y. Guan, M.L. Fernandes, R. Henriques	6107
FOSTERING EMPLOYABILITY SKILLS IN ENGINEERING EDUCATION: A GAME BASED LEARNING APPROACH P. Varney, V. Mai, V. Varney	6117
THE IMPORTANCE OF UNDERGRADUATE TEACHER TRAINING IN THE CONTEXT OF THE ECEC SYSTEM IN SLOVAKIA IN EARLY CHILDHOOD Z. Geršicová, M. Masáriková, S. Barnová, S. Krásna	6127
FROM IMAGE TO SPACE: STRATEGIES FOR THE DEFINITION OF GEOMETRIC AND CONSTRUCTIVE SYSTEMS BASED ON INTUITIVE CREATIVE PROCESSES Y. Zhang, J. Mosquera González	6134
TEACHING VISUAL PROGRAMMING: HUMANOID ROBOT PROGRAMMING AS A CASE STUDY M. Zimmermann	6143
THE ETHICAL AND PEDAGOGICAL ISSUES OF LEARNING ANALYTICS IN HIGHER EDUCATION INSTITUTIONS M. Klačmer Čalopa, I. Đunđek Kokotec, K. Kokot	6150
HOW DO ADOLESCENTS LIVE THEIR SOCIAL MEDIA? G. Fulantelli, L. Scifo, D. Taibi	6160
THE USE OF VIRTUAL REALITY IN OSH EDUCATION A. Ďaďová	6168
APPLICATION OF THE CASE-STUDY METHOD OR THE METHOD OF SPECIFIC SITUATIONS IN THE PROCESS OF FORMATION OF STUDENTS' CRITICAL THINKING I. Balandina, L. Yuzdova, T. Moskvitina, I. Kazachuk, A. Milyutina, G. Shiganova	6178
USING SMART LABS TO SUPPORT STUDENTS AND TEACHERS M. Zawiri, J. Sarraina, J. Calado, R. J. Canadinas	6182
NA AUTRITA I SATTATRA I I ALAGO K I I-OMCALIDO	

STRATEGY FOR SYSTEMATIC EDUCATION OF ROBOTICS, DRONES AND UNMANNED SYSTEMS THROUGH CASE STUDIES D. Shetty	6191
A COMPARISON OF COVID-19 DISTANCE LEARNING AND FACE-TO- FACE EXPERIENCES IN USING PROJECT-BASED PEDAGOGIES FOR UNDERGRADUATE ENGINEERING STUDENTS G. Ragusa	6196
ONLINE POST-GRADUATE PROGRAM IN DIGITAL EDUCATION: AN ASSESSMENT OF STUDENT'S PERCEPTION A. Cardoso, C. Martinho, R. Pereira Rodrigues, V. Manteigas, R. Abreu, M.J. Escudeiro	6202
CHALLENGES AND OPPORTUNITIES IN INTEGRATING STEM EDUCATION AT THE ELEMENTARY LEVEL IN NORTHERN QUEBEC B. El Fadil	6206
INCORPORATING MICROSOFT EXCEL INTO UNDERGRADUATE DEGREES: A CASE STUDY I. Tsener	6207
BUILDING BRIDGES: ALIGNING TEACHERS' PERCEPTIONS OF STUDENT WRITING WITH STUDENTS' PERCEPTIONS OF TEACHERS' FEEDBACK A. Albuquerque	6208
TRANSACTIONAL AND TRANSFORMATIVE COACHING AND ITS VALUE K. Schneider	6215
GAMIFIED NETWORK TRACE ANALYSIS: AN EDUCATIONAL ESCAPE ROOM TO RAISE LEARNERS' AWARENESS OF DATA PRIVACY AND DATA ENCRYPTION T. Baumeister	6216
STUDENTS AND THE INTERNET: USES, PROBLEMS AND BENEFITS DURING THE COVID-19 PANDEMIC IN PORTUGAL N.S. Morais, T. Pestana	6222
AN INQUIRY INTO HOW ACADEMIC FACULTY MEMBERS IN SAUDI ARABIAN UNIVERSITIES VIEW THE POSSIBILITY OF UTILIZING AUGMENTED REALITY AS A TEACHING TOOL E. Alqahtani	6230
USING PHOTOGRAMMETRIC 3D MODELS AS LEARNING SOURCES IN ARCHAEOLOGY M. Bouzas	6231
TEACHING THE LITERATURE OF NEW YORK IN THE UNIVERSITY STUDIES OF ENGLISH AS A FOREIGN LANGUAGE AND ITS IMPACT ON THE DEVELOPMENT OF READING SKILLS B. Jerliu	6236
THE IMPACT OF THE PROGRAMME NURTURING PHYSICAL SCIENCES EDUCATORS ON IMPROVING LEARNER PERFORMANCE K.J. Tlhabane, M.P. Rankhumise	6244
PSYCHOSOCIAL OUTCOMES OF A DRAMA-PEDAGOGY TRAINING FOR UNIVERSITY STUDENTS: ANXIETY AND POSITIVE EMOTIONS M.M.P. Celume, B. Dauvier	6245
DEVELOPING INTUITIVE THINKING IN MATHEMATICS STUDENTS ENGAGED IN SEARCH ACTIVITY Z. Dedovets, M. Rodionov, A. Nazarov	6256
PEDAGOGICAL GARDEN IN THE TEACHING-LEARNING PROCESS IN A MUNICIPAL SCHOOL IN CAMPOS DOS GOYTACAZES-RJ, BRAZIL P.C. Dos Santos, R.A. Beltrame, J.F. Lima, J.S.B. Lirio, L.F.S. Siqueira, A.J.C. Carvalho	6261
CONCEPT MAPS, KNOWLEDGE GRAPHS, ONTOLOGIES AND INTELLIGENT SEMANTICS - BASED APPROACHES FOR PERSONALIZED LEARNING T. Ivanova	6266
THE DIDACTIC EFFECTIVENESS VERIFICATION OF THE TEACHING MODEL THAT USES AN INNOVATIVE E-LEARNING MODULE M. Misutova, M. Misut	6276
THE PLAY IN TEACHING FRENCH BETWEEN TECHNIQUES AND CLASS PRACTICE K. Aada	6282
TERTIARY TEACHERS' REFLECTION ON ONLINE TEACHING IN AUSTRIA M. Beňo, D. Cagáňová, J. Hvorecký	6283

CLASSROOMS FOR PARTICIPATION: AN EXPERIENCE OF EDUCATION FOR CITIZEN PARTICIPATION USING SOCIAL MEDIA A. Sanz-Hernández, L. Bacallao-Pino, E. Monforte García, E. Edo Agustín, P. Jiménez-Caballero	6291
DISTANCE EDUCATION IN UKRAINE DURING THE WAR L. Movchan, N. Komisarenko, Y. Fernos, V. Kolisnyk	6300
GENDER DIFFERENCES IN STUDENTS' ATTITUDES TOWARDS ECONOMETRICS M. Cladera, A. Suárez-Álvarez, M.R. Vicente	6306
LEADERSHIP IN EDUCATION: A CASE STUDY OF SUCCESSFUL TEAM LEARNING ACTIVITIES A. Barbu, O.C. Dochia, G. Militaru, D.C. Deselnicu	6314
INCLUSIVE EDUCATION IN MALAYSIAN PRIMARY SCHOOLS: A REVIEW OF MAINSTREAM TEACHERS' EXPERIENCES OF TEACHING LEARNING-DISABLED CHILDREN H. Kaur	6323
FACTORS AFFECTING PERFORMANCE OF FACULTY MEMBERS IN LEBANESE HIGHER EDUCATION DURING ECONOMIC CRISIS- A STUDY ON PRIVATE HIGHER EDUCATION INSTITUTIONS L. Saleh, K. Bourdoukani, J. Arida	6324
ANALYZING THE EFFECTIVENESS OF ONLINE VS. FACE-TO-FACE WINE COURSES IN AN EXPERIMENT A. Stoeckl, C. Di Gennaro, D. Dotto, A. Gallaun, M. Wilfinger	6335
IMPROVING LABORATORY SKILLS IN HIGHER EDUCATION WITH A FLIPPED- CLASSROOM CONTEST F. Aznar, M. García Bosque, C. Aldea, E. Cascarosa, C. Sánchez-Azqueta, S. Celma	6344
RETHINKING THE CAPSTONE EXPERIENCE: OFFERING MINI PROJECT MODULES IN A SOFTWARE DEVELOPMENT MSC PROGRAMME N. Anderson, A. McGowan, D. Stewart, E. Barlaskar, L. Galway, P. Hanna, J. Bustard, J. Adhikari	6348
LEADING IN TIMES OF INSTABILITY: VOICES FROM THE SCHOOL PRINCIPALS B. Kafu-Quvane	6354
INSPIRING HUMANNESS THROUGH CHILDREN'S LITERATURE M. McMartin, T. Campbell	6359
IMPACT OF THE MIGRATION OF TEACHING ACTIVITIES DURING THE HEALTH CONTINGENCY IN FES ZARAGOZA, UNAM J.L.A. Mora, F. Palestino, G.M. García Escalante, M.S. Gonzalez, R. Rangel Corona, G. Gonzales, V. Moreno Mtz	6367
LEVERAGING GENERATIVE ASSISTIVE INTELLIGENCE (AI) FOR INSTRUCTIONAL DESIGN: A CASE STUDY USING ELABORATION THEORY R. Robinson, T. Kayalackakom, S. Philip, S. Modise, M. Millis	6373
USING INTERNET OF THINGS AND MAKER CULTURE FOR TEACHING FIRE DETECTION SYSTEMS IN HIGH SCHOOL A. Montenegro, C. Oliveira, S. Cruz, B. Cunha, V. Bremgartner, A. Araújo, F. Teixeira, W. Cativo	6374
USING AN AUTOMATED SPACED REPETITION ALGORITHM TO ENHANCE LEARNING IN CARIBBEAN MEDICAL STUDENTS: A PILOT STUDY R. Robinson, E. Schneider	6380
ROBÔ-EDU: EDUCATIONAL ROBOTICS STIMULATING THE INVOLVEMENT OF ELEMENTARY SCHOOL PUBLIC SCHOOL STUDENTS IN TECHNOLOGICAL INITIATION	6384
V. Bremgartner, J. Sousa, A. Ribeiro, M. Reis, G. Mendonça, J. Silva, D. Sousa, H. Lima, G. Silva	
RETHINKING EDUCATION: A CASE STUDY IN THE FIELD OF POPULAR AND SECOND-CHANCE SCHOOLS V. Cotza	6391
VOLUMETRIC VIDEO BROADCASTING AND CAPTURE: UNLEASHING THE FUTURE OF EDUCATION B. Carter	6402
CURRICULUM DEVELOPMENT BASED ON STATE SCIENCE ASSESSMENT DATA AND A TEACHER NEEDS SURVEY P. Pinner	6403
IN-SERVICE EDUCATION OF MUSIC THERAPIST AIMING TO HELP THE VULNERABLE GROUPS SUPPORTED BY AUTO-ETHNOGRAPHIC RESEARCH J. Duras Gled, Z. Bagaric, E. Strucic	6412

LIVING LABS AS PARTICIPATORY AND COMMUNITY LEARNING APPLIED TO REGIONAL DEVELOPMENT	6421
N. Cruz-Pérez, J.S. Rodríguez-Alcántara, J. Rodríguez-Martín, C. Moujan, I. La Jeunese, J.C. Santamarta	
FOSTERING ROBOTICS EDUCATION THROUGH IMMERSIVE AND INTERACTIVE LEARNING CONTENT	6425
L. Hornung, D. Puljiz, P. Augenstein, C. Gonzalez, C. Wurll, F. Bellalouna ONLINE LANGUAGE MODULE: LEARN CROATIAN!	6434
A. Ordulj	0434
UNLEASHING CREATIVITY FROM A WELSH PERSPECTIVE: DEVELOPING RESEARCH-BASED EVIDENCE FOR THE SUSTAINABILITY OF SOCIAL PRESCRIBING ART-ON-PRESCRIPTION FOR THE HEALTH AND WELLBEING OF THE NATION M.S. Rogers	6442
USING INNOVATIVE ARTISTIC RESOURCES FOR LEARNING ABSTRACT CHEMISTRY CONCEPTS M.T. Doménech-Carbó	6449
A PERSPECTIVE OF UNIVERSITY AND FABLAB NETWORKS TO INTEGRATE SUSTAINABILITY INTO FASHION DESIGN CURRICULA THROUGH INDUSTRY 4.0 TECHNOLOGIES G. Rizzi, P. Bertola	6450
RESILIENCE FOR INNOVATION PROJECTS IN THE EDUCATION SECTOR R. Lamscheck-Nielsen	6460
UNIVERSITY NETWORK COLLABORATION IN HIGHER EDUCATION: CASE CERN BOOTCAMP SUMMER SCHOOL J. Ojasalo	6470
LIVING LAB APPROACH TO IMPROVING THE QUALITY OF TRAINING SPACES A. Violano, R.G. Aenoai	6477
IMPROVISATION TO ADDRESS INDIGENOUS KNOWLEDGE IN THE TEACHING OF LIFE SCIENCES R. Kgopong, X. Khalo	6487
TEACHING MECHATRONICS, ROBOTICS AND AUTOMATION WITH ARDUINO R. Čermák, V. Mašek, D. Fait	6497
ASSESSING THE VIABILITY OF GENERATIVE AI FOR CREATING FORMATIVE MULTIPLE-CHOICE QUESTIONS TO ENHANCE FORMATIVE LEARNING IN CARIBBEAN MEDICAL STUDENTS: A PHENOMENOLOGICAL STUDY R. Robinson, R. Millis, T. Kayalackakom, T. Joy, N. Karanja, S. Philip, S. Modise	6503
ETHNOGRAPHIC RESEARCH OF PARTICIPATORY STORYTELLING IN THE CONTEXT OF SOCIAL INCLUSION OF CHILDREN WITH DEVELOPMENTAL DISABILITIES D. Mikulec, S. Stibohar, Z. Bagaric	6504
STABILITY AND VARIABILITY, A VITAL BALANCE BETWEEN GENOME EVOLUTION AND DISEASE: POSITIVE EFFECTS OF A NEW DOCENDO DISCIMUS TEAM DISSEMINATION SCIENCE PROJECT R. del Gaudio	6510
INTERACTIVE VIRTUAL SIMULATORS FOR THE DISCIPLINE OF ELECTRICAL CIRCUITS G. Mata Hernández	6511
TECHNOLOGICAL DESIGN WORKSHOP FOR THE PARTICIPATED ENERGY RETROFIT OF THE 'VIVIENDAS SOCIALES ANTONIO RUEDA' IN VALENCIA A. Violano, L.P. Palmero, G. Bernardo, M. Cannaviello, M. Merola	6518
EMPOWERING EARLY CHILDHOOD PROFESSIONALS: A EUROPEAN PROJECT ON PROGRAMME-WIDE POSITIVE BEHAVIOUR SUPPORT DEVELOPED IN 4 COUNTRIES S. Barros, V.H. Oliveira, M. Santos, S. Araújo, A. Otero-Mayer, V. Michaelidou, M. O'Brien, A. Szproch, K. Krousorati, A. Agathokleous, V. Grammatikopoulos	6519
ONLINE KNOWLEDGE ASSESSMENTS DURING THE CORONAVIRUS QUARANTINE: A STUDENT PERSPECTIVE ON E-LEARNING SYSTEMS M. Ražnjević Zdrilić, V. Kalajžić, J. Grzunov	6527
DEVELOPMENT AND IMPLEMENTATION OF INTELLECTUAL COMPONENTS OF THE DIGITAL EDUCATIONAL ENVIRONMENT S. Krasheninnikov, F. Novikov, M. Nakhatovich, D. Kurnosov	6535

DEVELOPING DESIGN PRINCIPLES FOR CREATING A MEANINGFUL LEARNING ENVIRONMENT M. Al Abri, A. Al Aamri, A. Elhag	6542
CHANGE GAME AND PLAY WITH EARTH: A MANAGEMENT GAME FOR COLLABORATION, EDUCATION AND DIGITALISATION L. Oliveti	6552
THE LIGHTING EFFECTS ON TACTILE PERCEPTION IN INTERIOR DESIGN STUDIOS N.S. Abdelaziz Mahmoud	6561
PROBLEM & PROJECT-BASED LEARNING IN PRE-UNIVERSITY EDUCATION: FROM IDEOLOGY TO PRACTICE C. Costa-Lobo, A. Vazzoler-Mendonça, V. Capellini, H. Wafunga	6568
TRENDS IN PHOTOVOLTAIC ENGINEERING EDUCATION D. Shehova, S. Shotarova, S. Lyubomirov, R. Popov, A. Parushev	6574
REMOTE LABORATORY FOR PHOTOVOLTAIC SYSTEM RESEARCH IN ENGINEERING EDUCATIONAL INSTITUTIONS S. Shotarova, D. Shehova, H. Kanevski, S. Lyubomirov, S. Asenov	6584
LEADERSHIP FOR EVERYONE: EMPOWERING LEADING FEMALES S. Karmysov	6593
DIGITAL DISTANCE LEARNING EXPERIENCES IN THE COVID-19 CRISIS: THE CASE OF BIFRÖST UNIVERSITY, ICELAND E. Svansson, S.L. Einarsdottir	6600
EMBEDDED SOFTWARE DEVELOPMENT WITH A MOBILE ROBOT M. Hodoň, P. Ševčík, J. Kapitulík, P. Danišovič	6601
ESCAPE ROOM "FUTURE EXPLORATION": COLLABORATIVE VIRTUAL REALITY FOR TEACHING STRATEGIC FORESIGHT G. Gándara, A.G. Rodríguez, M. Martínez	6607
BRAND COMMUNITY AS A VERSATILE BRAND-BUILDING TOOL E. Juozėnaitė	6614
GENIUSUP! AN EDUCATIONAL EXPERIENCE THROUGH SERIOUS GAMES USING AUGMENTED REALITY F.J. Perales Lopez, A.F. Florit	6623
LEARNING SPECIFIC SKILLS IN TECHNICAL SUBJECTS WITH A LARGE NUMBER OF STUDENTS: ANALYSIS OF THE ANALOG ELECTRONICS SUBJECT G. Prats-Boluda, J. Garcia-Casado, Y. Ye-Lin, B. Trénor Gomis, E. Guijarro-Estellés, J.L. Martínez-de-Juan	6629
ARE MORE EFFICIENT UNIVERSITIES MORE TRANSPARENT, OR VICE VERSA? J.L. Zafra-Gómez, J.C. Garrido-Rodríguez, G. Pérez-López, P. Povedano-Fernández, L. Marques- Arenas, G. Lopez-Perez	6637
VOICE - A DIGITAL OPEN EDUCATIONAL PLATFORM FOR SUPPORTING TEACHERS' PROFESSIONAL LEARNING: DESIGN AND EVALUATION S. Avgitidou, S. Theodosiou, S. Lykomitrou, C. Sidiropoulou, K. Karadimitriou	6646
SELF-STUDY, LEARNER CENTRED EDUCATION ABOUT ACTIVE CITIZENSHIP ON AN APP TO BE DOWNLOADED FOR FREE I. Häuser	6652
THE PROBLEM WITH THE SELF-LEARNING MACHINES: TOWARDS THE DEVELOPMENT OF THE PEDAGOGY OF ARTIFICIAL INTELLIGENCE R. Tomaszewska, A. Pawlicka	6660
LEVERAGING PODCASTS IN ENGLISH LANGUAGE TEACHING: ENHANCING COLLABORATIVE LEARNING THROUGH GOOGLE MEET IN THE CONTEXT OF COVID-19	6669
E. Bañares-Marivela, L. Rayón-Rumayor, J. Hernández Ortega, C. Barroso Moreno ROBOT CAR - LEARNING BY DOING M. Hodoň, P. Ševčík, J. Kapitulík, P. Danišovič	6677
STATE-OF-THE-ART OF ASSESSMENT PRACTICES IN STEM REMOTE LEARNING M. Manatos, A.R. Dias, P. Sampaio, A.S. Barbosa Pereira, J.P. Teixeira Domingues	6684
HISTORY OF SCIENCE AND TECHNOLOGY IN THE CONTEXT OF STEAM EDUCATION: A NON-FORMAL EDUCATION PROJECT FOR THE DEVELOPMENT OF SCIENTIFIC LITERACY IN BASIC SCHOOL STUDENTS C. Venturine, I. Malaquias	6693
UNETHICAL USE OF ARTIFICIAL INTELLIGENCE IN EDUCATION A. Elmessiry, M. Elmessiry, K. Elmessiry	6703

INCLUDING NEWLY ARRIVED CHILDREN IN THE EDUCATION SYSTEM OF LATVIA: ASPECTS OF THE ASSOCIATED PROBLEMS AND POSSIBLE SOLUTIONS I. Prudnikova, V. Lubkina, L. Danilane, J. Dzerviniks, S. Usca, I. Bruveris	6708
STUDYING THE DISTRIBUTION OF THE RESULTS OF VIRTUAL EXPERIMENTS IN PHYSICS C. Ionascu, R. Dinescu, A. Jipa	6718
QUALITATIVE ANALYSIS TEACHING AND LEARNING: A FEW PEDAGOGICAL PRINCIPLES FOR DESIGNING DIGITAL LEARNING OBJECTS D. Dumitrica, N. Oosterman	6719
IMPLEMENTING TEAM-BASED LEARNING IN DATA SCIENCE EDUCATION: ENHANCING STUDENT SATISFACTION AND PERFORMANCE R. Henriques, L. Oliveira, R. Santos, C. Albuquerque	6720
POST-PANDEMIC EDUCATIONAL INSIGHTS IMPLEMENTING THE PEDAGOGICAL VARIATION MODEL (ROGERS, 2013) M.S. Rogers, A. Grunewald Nichele	6730
NEW EXPERIENCES IN LEARNING ABOUT ENTREPRENEURSHIP FOR ENGINEERING STUDENTS AT THE UNIVERSITY OF JAÉN L. Hontoria, C. Rus-Casas, J.D. Aguilar-Peña, F.J. Muñoz-Rodríguez, F. Baena	6739
STUDYING CHALLENGES, TASKS AND BENEFITS OF USING VIRTUAL SPACES FOR EDUCATIONAL, LEARNING AND SHOWCASING PURPOSES M. Jäntti, M. Aho, J. Kalermo-Poranen	6745
PROPOSALS FOR TRAINING IN SOLAR PHOTOVOLTAIC ENERGY FOR SECONDARY EDUCATION LEVELS V. Raya, J.D. Aguilar, L. Hontoria, C. Rus-Casas, F.J. Muñoz-Rodríguez	6755
COOPERATIVE LEARNING IN THE NANOMATERIALS SUBJECT TO OBTAIN DIFFERENT NANOSTRUCTURED MATERIALS THROUGH VARIOUS TECHNIQUES V. Moreno Garcia, C. Pavón Vargas, H. De La Rosa Ramírez, J. López Martínez, S. Ferrándiz Bou	6761
IMPACT OF THE FLIPPED CLASSROOM METHODOLOGY IN THE SOLID WASTE TREATMENT LABORATORY C. Pavón Vargas, V. Moreno, M.D. Samper, M. Aldas, J.M. Ferri, J. López-Martínez	6767
LEARNING TO PERFORM BIBLIOMETRICS: LIBRARIANS TRAINING RESEARCHERS THROUGH RAPID REVIEWS A. López-Martínez, M. González-Gallarza, R. Sánchez-Fernández, M. Cuadrado-García, M. Portelli-Giner, C. Gimeno-Estornell	6774
VALUE CO-CREATION BETWEEN LIBRARIANS AND RESEARCHERS: AN EXAMPLE AROUND THE EXPERIENCE VALUE CONCEPT IN THE ARTS A. López-Martínez, M. González-Gallarza, M. Cuadrado-García, R. Sánchez-Fernández, C. Gimeno-Estornell, M. Portelli-Giner	6782
WHAT IF ALL COURSES ARE ONLINE: LEARNING APPROACHES AND STRATEGIES OF STUDENTS OF MEDICAL SCIENCES AND THEIR PERCEIVED LEARNING ACHIEVEMENT AND SATISFACTION A.N. Diep, G. Philippe, L. Counasse, P. Hubert, A.F. Donneau	6788
CRIBEL: LIFELONG LEARNING SOCIAL NETWORK GOVERNED BY ACADEMIC INSTITUTIONS: AN AFFORDABLE SERVERLESS MODEL IN THE CLOUD J.A. Romero-Del-Castillo, J. Mancha-Dieguez, D. Ortiz-Boyer	6789
APPLYING THE ADJUNCT MODEL OF CONTENT-BASED LANGUAGE INSTRUCTION IN A TERTIARY-LEVEL ENGINEERING SETTING A. Casey	6796
AN INNOVATIVE LEARNING SYSTEM FOR INTERCONNECTED EMBEDDED SYSTEMS L. Formanek, V. Olesnanikova, P. Sarafin, P. Sevcik	6801
THE ROLE OF THE FAMILY IN THE EDUCATION OF A CHILD WITH LEARNING DIFFICULTIES C.C. Pascariu	6805
PROTOTYPE FOR MEASURING AND PREDICTING AIR QUALITY USING UAVS L. Formanek, V. Olesnanikova, P. Sarafin, P. Sevcik	6810
DOUBLE HELIX'S PLATINUM ANNIVERSARY: A NEW HANDS-ON/STEM-BASED PROJECT TO LEARN DNA STRUCTURE BUILDING 3D CREATIVE MODELS USING RECYCLED AND ECO-SUSTAINABLE MATERIALS FROM PAPER TO BIOPLASTIC R. del Gaudio	6815
"SIRIUS": A SERIOUS KNOWLEDGE GAME FOR ANDROID F. Gedeon, E. Papaioannou, C. Kaklamanis, E. Psarrou	6816

MEDIA LITERACY IN HIGHER EDUCATION: PERCEPTIONS ABOUT ETHICAL ISSUES IN JOURNALISM AMONG STUDENTS OF A SOCIAL COMMUNICATION COURSE N.S. Morais, J. Martins, M. Midões	6825
WHAT HAPPENS WHEN A USER FIRST ENTERS AN ONLINE ASYNCHRONOUS LEARNING COURSE AND HOW TO DESIGN A USER-FRIENDLY ENTRY SPACE M. Norscini, P.G. Rossi, M. Amicucci	6832
MOTIVATION AND TEAMWORK IN A MULTIDISCIPLINARY PROJECT L. Canós-Darós, E. Babiloni, C. García Gallego, M. García Gallego, C. Santandreu-Mascarell, E. Guijarro	6842
USE OF ELECTRONIC DEVICES WITH SCREENS BY PRE-ADOLESCENTS AND THE ASSOCIATION WITH SELF-CONTROL I. Becerril-Atxikallende, J. Jaureguizar	6848
TEACHERS' ATTITUDES TOWARDS PROBLEM-BASED APPROACH IN PRIMARY SCHOOL BIOLOGY TEACHING V. Županec, D. Raletić	6855
IMPLEMENTATION OF CORRELATIVE-INTEGRATIVE APPROACH IN BIOLOGY TEACHING IN PRIMARY SCHOOL V. Županec, V. Sekulić, T. Lazarević, T. Pribićević	6863
FAST TRACK FOR UNIVERSITY - SME COOPERATION P. Rantanen, O. Bogdanova	6870
DEMOCRATIZING ACCESS FOR SMES TO THE RESULTS OF PUBLICLY FUNDED RDI PROJECTS O. Bogdanova, P. Rantanen	6875
INTEGRATING BIOPHILIC APPROACH AND STAND EXHIBITION IN INTERIOR DESIGN EDUCATION G. Elsamanoudy	6880
FAIRSCHOOL: THE COLLABORATIVE DIGITAL PLATFORM THAT CONNECTS SCHOLARS AND TEACHERS L. Oliveti	6888
EVALUATION OF THE DESIGN OF AN ONLINE COURSE FOR SCRATCHJR LEARNING IN STUDENTS OF THE PEDAGOGY UNDERGRADUATE DEGREE M. Santos Miranda-Pinto, P. Ibañez-Cubillas, S. López Rodríguez	6895
EVALUATION OF THE IMPACT OF TRAINING IN PROGRAMMING WITH SCRATCHJR ON FUTURE PEDAGOGY PROFESSIONALS P. Ibáñez-Cubillas, M. Santos Miranda Pinto, S. López Rodríguez	6900
THE PEDAGOGICAL TRAINING OF FUTURE ICT TEACHERS: AN EXPERIENCE REPORT FROM THE UNIVERSITY OF THE AZORES A.C. Loureiro, A.I. Santos	6905
BOUNDED SCALES: A NEW TYPE OF SCALE FOR EDUCATIONAL PRACTICE AND RESEARCH P.H. Vossen, S. Ajit	6912
PERCEPTIONS OF THE EDUCATIONAL POTENTIAL OF ROBOTICS AND CODING IN INCLUSIVE SETTINGS A.C. Loureiro, M. Santos Miranda Pinto	6923
PROBLEM-POSING TO DEVELOP PROPORTIONAL AND PROBABILISTIC REASONING M. Burgos, N. Tizón-Escamilla	6931
PRIMARY SCHOOL PUPILS' INTUITIONS AND STRATEGIES WHEN SOLVING FAIR GAME TASKS M. Burgos, N. Tizón-Escamilla, M.M. López-Martín	6938
EXPLORING TEACHERS' DIGITAL KNOWLEDGE AND SKILLS: A COMPARATIVE STUDY IN THE PANDEMIC PERIOD 2020-2023 G. Kalogeratos, C. Pierrakeas	6946
LOW COST 360 DEGREE VIRTUAL REALITY VIDEO CREATION FOR NURSING INTENSIVE CARE UNIT PRACTICES: A DESCRIPTIVE STUDY P. García-Pazo, F.J. Perales Lopez, A. Bibiloni Coll, C. Moreno, L.A. Brogi	6957
ARTIFICIAL INTELLIGENCE IN THE PUBLIC GREEK SCHOOL AFTER THE COVID-19 ERA G. Kalogeratos, C. Pierrakeas	6958

AN ASSESSMENT OF ONLINE COURSES FOR SUPPORTING GREEK HIGHER EDUCATION TEACHERS' DIGITAL COMPETENCE E. Bitakou, K. Demestichas, M. Ntaliani, C. Costopoulou	6965
TEACHING PHASORS WITH THE AID OF GAMING TOOLS G. Pagiatakis, N. Voudoukis, D. Uzunidis	6970
USING KAHOOT TO TEACH WAVE BASICS N. Voudoukis, G. Pagiatakis, D. Uzunidis	6974
GROUP-PEER-ASSESSMENT FROM A QUANTITATIVE POINT OF VIEW P.H. Vossen, S. Ajit	6979
WAYS OF COMMUNICATION USED BY THE MUSIC TEACHER AS A MEDIATOR TO ENCOURAGE CHILDREN TO DISCERN AND DEMONSTRATE THE PERCEIVED QUALITIES OF MUSICAL SOUNDS D. Žitkevičienė	6990
SOCIOMETRIC ASSESSMENT FOR MEASURING THE DEGREE OF COLLABORATION IN STEM EDUCATIONAL ENVIRONMENT D. Donev, G. Avramova-Todorova	6998
DEVELOPMENT OF PERSONAL COMPETENCES THROUGH STEM: EVIDENCE-BASED METHODS AND THEIR USE IN EDUCATIONAL SYSTEMS M. Manolov, G. Avramova-Todorova	7007
EXPRESSING THE CULTURE OF EDUCATIONAL INNOVATIONS IN EARLY CHILDHOOD EDUCATION D. Žitkevičienė, R. Barusevič	7016
ACTIVE AND COLLABORATIVE LEARNING ENVIRONMENTS IN HIGHER EDUCATION: A PARTICIPATORY CONSTRUCTION PROCESS AT ISCTE-UNIVERSITY INSTITUTE OF LISBON S. Pintassilgo, J. Monteiro, A. Paio, S. Fonseca, P. Sebastião, N. Pedro	7017
COACHING AS A MODEL FOR SUCCESSFUL EDUCATION A. Pukiene, I. Brazauskaite-Zubaviciene, C. Saccone	7027
STUDENTS AS TEACHERS: INTERDISCIPLINARITY AND PEER-LEARNING IN TOURISM EDUCATION S. Vasconcelos, A. Balula, R. Costa	7036
QUEST-DRIVEN EXPLORATION OF INTERACTIVE INSTALLATIONS IN SCIENCE CENTRES	7040
J. Wideström, R.J. Cumming, C. Larsson, S. Siddiqui, J. Boström, C. Djurelind, C. Sandberg, C. Törn- Lindhe	
USING LEARNING ANALYTICS TO MOTIVATE PROGRAMMING NOVICES E. Pietrikova	7047
EVOLVING NON-PLAYER CHARACTERS IN EDUCATIONAL GAMES IN VIRTUAL WORLDS P. Athanasiou, E. Voyiatzaki, I. Hatzilygeroudis	7053
TO WHAT EXTENT ARE ENTREPRENEURIAL EDUCATION AND NATIONAL HUMAN CAPITAL CONNECTED TO THE DEVELOPMENT OF ENTREPRENEURSHIP IN EUROPE? I. Fojs, K. Detelj	7060
INTELLIGENCE AND SOCIO-DEMOGRAPHIC CHARACTERISTICS OF STUDENTS WITH SPELLING DIFFICULTIES S. Trecha, A. Tsibidaki	7069
FROM SIMULATION TO REAL CHARACTERIZATION TO TEACH SCANNING PROBE MICROSCOPIES TO STUDENTS OF NANOSCIENCE AND NANOTECHNOLOGIES DEGREE M.B. Montero Rodriguez, M.C. Ramírez Gómez, M. Rico Varela, R. Bouza Padín, J.C. López Lago, J.	7075
Martín Pérez UNIVERSITY BRAND: STUDYING ALUMNI REPRESENTATION PRACTICES	7080
K. Dimopoulos, E. Voyiatzaki	
DEVELOPING A NEW FUNCTIONAL SKILLS MATHS (PAPER-BASED) INITIAL ASSESSMENT AND EXPLORING ITS EFFECTIVENESS K. Norley	7086
AUTOMATIC ASSESSMENT WITH MATLAB GRADER IN ENGINEERING EDUCATION: THE CASE OF INDUSTRIAL PROCESS CONTROL I. Tejado, R. de la Encarnación-Sama, C. Nuevo-Gallardo, E. Pérez	7094

EXPERIENCES OF GLOBAL ETHNIC MAJORITY STUDENTS IN UK HIGHER EDUCATION: EVALUATING MULTIPLE THEORETICAL FRAMEWORKS TO UNDERSTAND THE GLOBAL ETHNIC MAJORITY AWARDING GAP H. Chepkurui, P. Seuwou, N. Dodzo, M. Opoku Agyeman	7104
DESIGN OF AN ONLINE MASTER'S DEGREE THROUGH THE LENS OF THE SENIOR TEACHING QUALIFICATION PROFESSIONAL DEVELOPMENT PROGRAM: THE CASE OF ERASMUS UNIVERSITY ROTTERDAM D. Vlachopoulos, J. Maarschalkerweerd	7112
ACADEMIC SKILLS FOR IMPROVING SUCCESS: A PROPOSAL ORIENTED TO STUDENTS IN POST-GRADUATION CYCLES R. Mauritti, H. Belchior-Rocha, S. Pintassilgo, J. Monteiro	7121
TEACHING COMPUTER PROGRAMMING LANGUAGES BY EXPERIENTIAL LEARNING Y. Tseng	7126
MODELLING GAMIFIED E-LEARNING EXPERIENCES WITH USER PROFILES J. Miškov	7131
EDUCATIONAL CONTINUITY PROGRAM PLANNING: LESSONS LEARNED FROM THE COVID-19 PANDEMIC FOR EDUCATIONAL ADMINISTRATION IMPROVEMENT B. Barrett	7141
ENHANCING STEM EDUCATION USING MACHINE LEARNING AND REINFORCEMENT LEARNING TECHNIQUES FOR EDUCATIONAL SOFTWARE AND SERIOUS GAMES Y. Liu, B. Zoghi	7148
EMERGING TECHNOLOGIES IN EDUCATION: ENHANCING DISTANCE LEARNING WITH TECHNOLOGY-ENHANCED LEARNING Y. Liu, B. Zoghi	7153
APPLICATION OF DIFFUSION OF INNOVATION APPROACH IN CREATING THE LA ADOPTION MATURITY FRAMEWORK N. Kadoic, N. Begičević Ređep	7158
DEDUCTIVE AND INDUCTIVE INSTRUCTIONAL SEQUENCE: THE IMPACT ON STUDENTS' PERFORMANCE A. Gorbunova, J. Costley, A. Savelyev, I. Shcheglova, C. Lange	7164
THE IMPORTANCE OF INTEGRATING PHARMACOGENETICS AS A NEW SUBJECT IN THE MEDICINE AND PHARMACY DEGREES AT THE MIGUEL HERNANDEZ UNIVERSITY P. Castro-Sanchez, M.J. Prieto-Castelló, L. Pitaluga-Poveda, D. Marhuenda-Amorós, A. Cardona-Llorens, A. Corno-Caparrós	7165
THE LEARNING APPROACHES OF LYCEUM STUDENTS ATTENDING THE COURSE "PRINCIPLES OF ECONOMIC THEORY" S. Asonitou, E. Pantzouri	7172
HYPERTEXT IN EDUCATION: A 40-YEAR HISTORY G. Fulantelli	7182
PIAE+: AN UNIVERSITY PROJECT IN STUDENT ACCOMPANIMENT M. Alonso Diaz, V.E. García Félix, M.C. Rodriguez Monzonis, M.E. Gomez Martin	7191
CURRICULUM DESIGN FOR DISTANCE AND REMOTE LEARNING IN LEGAL STUDIES O. Dorul, A. Nastas	7200
STUDENTS' ATTENDANCE, STUDY HABIT AND PERFORMANCE IN AN ANIMAL PHYSIOLOGY CLASS K.M. Yam	7204
TOWARDS AN EVALUATION CONCEPT FOR IMMERSIVE TEACHING BASED ON THE "COGNITIVE AFFECTIVE MODEL OF IMMERSIVE LEARNING (CAMIL)" FRAMEWORK M. Stirzel	7211
THE FREQUENCY OF PLAYING ONLINE GAMES IN THE STUDENT POPULATION BEFORE AND DURING THE COVID-19 PANDEMIC D. Vučić, V. Vidaček Hainš, S. Ćurković	7219
MASTERING THE ART OF TEACHING: HOW TO DEVELOP STUDENTS' SKILLS THROUGH VIRTUAL MOBILITY? J. Bruneckiene, V. Kumpikaitė-Valiūnienė, I. Zykiene	7226

INTERNATIONAL ASSESSMENT OF MATHEMATICAL KNOWLEDGE – THE SOURCE OF NEW APPROACHES IN PRIMARY EDUCATION A. Prídavková	7234
A NEW METHODOLOGY FOR LEARNING HOW TO DESIGN HEALTH CAMPAIGNS E. García-Cabrera, J.J. Marin-López, S. Sanchez Fidalgo, F. Morales Marin, L. Bejar-Prado, A. Vilches-Arenas	7244
MODELLING OF ELEMENTARY MATHEMATICAL CONCEPTS USING AUGMENTED REALITY TECHNOLOGY IN PRIMARY EDUCATION A. Prídavková	7249
DATA ACQUISITION SYSTEM AS A SYSTEM TO SUPPORT THE TEACHING OF TECHNICAL DISCIPLINES J. Micek, O. Karpis, V. Olesnanikova, M. Chochul	7255
TEACHING DESCRIPTIVE STATISTICAL METHODOLOGY USING TWO APPS FOR THE COLLECTION AND ANALYSIS OF ANTHROPOMETRIC DATA E. García-Cabrera, A. Quintero-Florez, J.R. Lacalle-Remigio, A. Fernández-Palacín, J. Polo Padillo, A. Vilches-Arenas	7261
TESTING SYSTEM TO INCREASE LISTENER ACTIVITY J. Micek, O. Karpis, V. Olesnanikova, M. Chochul	7265
MINECRAFT AS A REMOTE LAB FOR ACTIVE LEARNING: THE STUDENTS' EXPERIENCE DURING THE PANDEMIC M.E. Cigognini, A. Benassi, A. Nardi	7271
TEACHING LSP THROUGH PROJECT-BASED LEARNING IN MIXED SPECIALISATION CLASSES L. Mayorova, V. Avdeeva, A. Kravchenko, A. Bogatov, D. Bogatova	7281
EXPERIENCE IN DESIGNING AN INDIVIDUAL SELF-DEVELOPMENT TRAJECTORY OF THE PEDAGOGICAL MASTER'S PROGRAM STUDENTS G. Melnikova, S. Gilmanshina, R. Sagitova, A. Galeeva, I. Gilmanshin	7287
DEVELOPING STUDENTS' SKILLS IN NATURAL RESOURCES MANAGEMENT THROUGH SERIOUS GAMES M. Tramonti, A.M. Dochshanov, L. Tramonti	7292
TECHNOLOGIES OF PEDAGOGICAL ADAPTATION OF FOREIGN SCHOOLCHILDREN TO THE NEW EDUCATIONAL ENVIRONMENT S. Gilmanshina, D. Darzemanova, R. Sagitova, A. Galeeva, I. Gilmanshin	7297
ANALYSIS OF THE INTRODUCTION OF LITERATURE INTO FOREIGN LANGUAGE TEACHING $N.\ Ta$	7305
FROM REGULATORY INNOVATION TO EDUCATIONAL INNOVATION: WHEN EVALUATION SUPPORTS LEARNING PROCESSES AND INCREASES STUDENTS' MOTIVATION M.E. Cigognini, L. Parigi	7310
LEARNING AIDS ON A VIRTUAL CAMPUS: CORRELATING USAGE WITH EXAM SCORES AND IMPROVING PERFORMANCE M.P. Vinardell, R. Martín-Venegas, J. Olloquequi, J. Del Valle, C. Pelegrí, M. Rabanal, R. Ferrer, M.J. Rodríguez-Lagunas, M.C. Morán, T. Cambras, M. Mitjans	7323
EDUCATING THE BOARDS OF FAMILY FIRMS IN SUSTAINABILITY: WHERE DO WE STAND? M. Madaleno, E. Vieira, D. Magueta	7328
SATISFACTION SURVEYS OF STUDENTS IN THE OCCUPATIONAL RISK PREVENTION MASTER OF MIGUEL HERNANDEZ UNIVERSITY: A TEMPORARY EVOLUTION THAT INCLUDES THE PANDEMIC OF COVID19 (2018-2022) M.J. Prieto-Castelló, A. Cardona-Llorens, P. Castro-Sánchez, L. Pitaluga-Poveda, D. Marhuenda-Amorós	7339
SOCIAL ROLES AND INDIVIDUAL INTEREST OF STUDENTS IN A HIGHER VOCATIONAL TRAINING CYCLE Y. Martinez-Hierrezuelo, D. Gil Pareja, L. Lucio González	7345
POSSIBILITIES OF USING THE EDUCATIONAL MOBILE APPLICATION IN TEACHING EDUCATIONAL PSYCHOLOGY M. Mesárošová, R. Miháliková	7351
THE RELIABILITY OF A QUESTIONNAIRE OF STUDENTS' EXPECTATIONS AND INDIVIDUAL INTEREST IN A HIGHER VOCATIONAL TRAINING CYCLE V. García Angricio I. Muñoz Martin Y. Martinez-Hierrezuelo	7356

SENSORY INTEGRATION OF CHILDREN WITH AUTISM SPECTRUM DISORDER: PARENTS' EXPERIENCES	7364
M. Jurevičienė, I. Kaffemanienė, I. Bilbokaitė-Skiauterienė, R. Bilbokaitė, K. Gindulytė, V. Linkuvienė	
ENABLING STUDENT CHOICE OF ASSESSMENT STYLE: CONSIDERATIONS AND PRACTICALITIES G. Hopkins	7373
GROUPING BACHELOR'S STUDENTS ACCORDING TO THEIR MOODLE INTERACTION PROFILES: A K-MEANS CLUSTERING APPROACH R. Santos, R. Henriques	7383
INSPIRING EDUCATORS TO RETHINK SUSTAINABILITY L.F. Dal Pian, M.C. Dal Pian, M. Dal Pian	7390
INFORMAL LEARNING EXPERIENCES BY EXPLORATION OF VISUAL RESEARCH DATA IN A SCIENCE CENTER L. Pareto, I. Pettersson, M. Söderberg	7400
CROSS-CULTURAL ANALYSIS OF CONFIDENCE IN ANSWERING MULTIPLE- CHOICE COGNITIVE PROBLEMS FROM THE MATHEMATICAL KANGAROO COMPETITION FOR SCHOOLGIRLS OF THE 4TH AND 5TH GRADES S. Churbanova, M. Martynovsky	7410
SATISFACTION SURVEYS TO PROFESSORS REGARDING TEACHING AND SERVICES IN THE MASTER'S DEGREE IN OCCUPATIONAL RISK PREVENTION AT THE MIGUEL HERNÁNDEZ UNIVERSITY	7411
A. Cardona-Llorens, P. Castro-Sanchez, M.J. Prieto-Castelló, L. Pitaluga-Poveda, D. Marhuenda-Amoros	
QUALITY INDICATORS OF THE OCCUPATIONAL RISK PREVENTION MASTER IN THE MIGUEL HERNANDEZ UNIVERSITY. A TEMPORAL EVOLUTION THAT INCLUDES THE PANDEMIC OF COVID19 (2018-2022) M.J. Prieto-Castelló, A. Cardona-Llorens, P. Castro-Sánchez, L. Pitaluga-Poveda, D. Marhuenda-	7418
Amorós	
DEVELOPMENT OF SOCIAL SKILLS FOR CHILDREN WITH SEVERE AND PROFOUND SPECIAL EDUCATIONAL NEEDS M. Jurevičienė, A. Vaitkevičienė, I. Bilbokaitė-Skiauterienė, I. Kaffemanienė, R. Bilbokaitė	7424
INVESTIGATING THE INNOVATION CAPABILITIES OF DESIGN STUDENTS IN HIGHER EDUCATION: A CASE STUDY IN SPAIN L.M. Cerdá Suárez	7433
A THEMATIC SYNTHESIS OF EARLY CHILDHOOD EDUCATORS' PERCEPTIONS OF CREATIVE TEACHING AND COVID-19 A.G. Tan, S.E. Lim	7441
AN INTERGENERATIONAL PERSPECTIVE ON GAMIFICATION IN EDUCATION AND RESEARCH	7449
I.G. Mocanu, M. Velciu, O. Cramariuc	
SELF-CARE USING TECHNOLOGICAL MEDIA IN VULNERABLE CONTEXTS S. Vasquez, E. Flores	7454
HIGHER EDUCATION IN WARTIME: CHALLENGES AND PRACTICES O. Labenko, T. Ugryn, A. Skrypnyk, I. Sytdykova	7459
SOCIAL INTERRELATIONSHIPS A KEY ASPECT TO ACHIEVE AN INCLUSIVE UNIVERSITY: FACULTY MEMBERS PERCEPTION ABOUT THE INCLUSION OF MASTER STUDENTS WITH DISABILITIES I. Heras, I. Becerril-Atxikallende, B. Marcos-Rivero, K. Gonzalez-Antona, J.M. Becerril	7465
VIDEO AS A TOOL FOR UNDERSTANDING CREATIVE TEACHING PRACTICES IN EARLY CHILDHOOD SETTINGS K.H. Phua, A.G. Tan	7473
ETHICAL PRINCIPLES AND PEDAGOGICAL TACT – SURVEY AT THE FACULTY OF MEDICINE COMENIUS UNIVERSITY IN BRATISLAVA E. Kralova, L. Martauzova, M. Trnka	7479
MEASUREMENT INVARIANCE AND LATENT MEAN DIFFERENCES OF SOCIAL SKILLS AS A SCHOOL READINESS TEST FOR HUNGARIAN PRESCHOOL CHILDREN IN HUNGARY AND SLOVAKIA K. Józsa, D. Borbélyová, T.Z. Oo, A. Nagyová, J. Podráczky, G. Zentai	7483
BENEFITS OF TEACHING 3D PRINTING IN THE EDUCATION PROCESS AT THE FACULTY OF MANAGEMENT SCIENCE AND INFORMATICS L. Formanek, A. Tupy, L. Cechovic, P. Sarafin	7492

CHILDREN'S PERSPECTIVE ON EDUCATIONAL CONTEXT THROUGH PHOTOVOICE L. Luini, M. Guerra	7499
THE IMPORTANCE OF SAFE WATER AND ITS PERCEPTION BY STUDENTS IN EUROPE AND AFRICA AS PART OF A TRANSNATIONAL RESEARCH PROJECT O. Cramariuc, H. Lebik, T. Kodom, I.G. Mocanu, K. Bierwirth, E.S. Lohan	7505
INMOOV PROJECT CONTROLLED BY ROBOT OPERATING SYSTEM (ROS) L. Formanek, A. Tupy, L. Cechovic, P. Sarafin, M. Buchta	7511
ST3LLARSAT1 "BOIRA": ESTABLISHING THE FIRST STUDENT CUBESAT PROGRAM AT UC3M A. Marcos, A. Ponche	7521
INVESTIGATING THE KNOWLEDGE OF PRE-SERVICE PRIMARY SCHOOL TEACHERS REGARDING DIVISION OPERATION E. Balci, M. Işıksal-Bostan	7531
HUMANISTIC LEARNING IN ONLINE TEACHING ENVIRONMENT: PRINCIPLES AND IMPLICATIONS M. Bava Harji, L. Ravindran, N. Saffari, L. Habeb Al-Obaydi	7537
REFRAMING THE IMPACT OF INNOVATIVE LEARNING TECHNOLOGIES ON UNIVERSITY STUDENTS AND LECTURERS TO SAVE TIME AND IMPROVE LEARNING CHALLENGES & OPPORTUNITIES A. Majeed, A. Asim, P. Bocij	7546
DIGITAL JEWELRY AND VIRTUAL EXHIBITION: INTERACTION IN THE METAVERSE L. Tenuta, B. Rossato	7554
INTELLECTUAL PROPERTY AT THE UNIVERSITY IN CROATIA - UNDERSTANDING, DIFFERENCES, DISPOSITION M. Kos Weissbarth, M. Šantalab, J. Lasić Lazić	7561
DIMENSIONS OF FAMILY DYNAMICS AND SOCIO-DEMOGRAPHIC CHARACTERISTICS OF PARENTS OF CHILDREN WITH SPELLING DIFFICULTIES A. Tsibidaki, S. Trecha	7567
IEEE STANDARDS: TECHNICAL STANDARDS POWERING INNOVATION AND NEXT GEN EDUCATIONAL PROGRAMS E. Vega Janica	7573
THE SDG AT ISEC LISBOA: STUDENTS AND TEACHERS' AWARENESS AND KNOWLEDGE A. Oliveira, T. Carraquico	7574
SPREADING DIGITAL INNOVATION CULTURE AMONG STUDENTS: A MULTI- STAGE LABORATORY MODEL ON AI AND ANTICIPATORY THINKING FOR SCHOOLS S. Bocconi, F. Talamini, G. Trentin	7579
POLICY FOR DIGITAL TRANSFORMATION IN SCHOOLS – CASE STUDY OF VIETNAM H. Trinh, P. Le, H. Mac, A. Nguyen, H. Trinh	7585
FACTORS THAT INFLUENCE TEACHERS' PERCEPTIONS OF ENGINEERING EDUCATION: A SURVEY STUDY M. Ben Ghalia, M. Al Mestiraihi, E. Donaire	7594
INTERDISCIPLINARY FRAMEWORK FOR PYTHON PROGRAMMING AT SECONDARY SCHOOL R. Papancheva	7600
A TAXONOMIC FRAMEWORK FOR DEVELOPMENT OF ADAPTIVE METRIC SYSTEM FOR ASSESSMENT OF STEM-COMPETENCIES N. Kaloyanova, R. Papancheva	7608
ELABORATING GROUP POSTERS TO COOPERATIVE LEARN STORAGE DEVICES AND FILE SYSTEMS FOR DATA CENTRES M.F. Dolz, S. Catalán, M. Castillo, V.R. Tomás	7615
ACTIVE LEARNING IN COMPUTER NETWORKS S. Catalán, R. Moreno-Vozmediano, M.F. Dolz, M. Castillo	7621
DEVELOPMENT AND OPERATION OF ONLINE SCHOOLS: A CASE STUDY OF VIETNAM H. Trinh, H. Mac	7628
ENHANCING APPRENTICESHIP AND TECHNICAL EDUCATION WITH AI: IMPROVING TEACHING & LEARNING IN COMPUTER SCIENCE AND DATA ANALYTICS P. Bocij, A. Majeed, M. Warsame	7636

THE EFFECTIVENESS OF SYNTHETIC SPEECH FOR SECOND LANGUAGE LISTENING: AN EXPERIMENT USING THE MERE EXPOSURE EFFECT N. Matsuda	7643
THE VIRTUAL READING CHALLENGE: AN EDUCATIONAL TOOL TO PROMOTE READING AND PEER COOPERATION G. Moretti, A. Morini, F. Sidoti	7644
TEACHERS' AND STUDENTS' KNOWLEDGE FOR INFORMATION AND COMMUNICATION TECHNOLOGIES INTEGRATION INTO THE CURRICULUM DURING THE COVID-19 PANDEMIC D. Monteiro Will, M. Bazzo de Espíndola, S. da Aparecida Martins, E. Vasconcelos de Almeida	7653
INQUIRY-BASED INFORMAL MATHEMATICS LEARNING IN A SCIENCE CENTER L. Pareto, J. Wideström, H. Sigurdsson, C. Sandberg	7659
RATIONALITY, MATHEMATICS & SELF-ESTEEM - INNOVATION IN MATHEMATICS EDUCATION IS THE KEY FOR SUSTAINABILITY M. Farkas-Kis	7669
EVERY TEACHER SHOULD HAVE A STUDENT LIKE CHRIS: EMBRACING NEURODIVERGENCE, UDL, AND EDUCATING A VARIETY OF LEARNERS B. Sundararajan, M. Sundararajan, K. Haigh, S. Vimalraj	7678
YOUTH AND CHILDREN'S PARTICIPATION THROUGH CO-DESIGN OF PLACES L. Luini, F. Rota	7688
EDUCATIONAL ROBOTICS AS A TOOL FOR THE ACQUISITION OF TECHNICAL AND SOFT SKILLS IN UNIVERSITY EDUCATION J. Ruiz-de-Garibay, P. Garaizar	7694
THE DEVELOPMENT OF SDGS IN COMPUTER SCIENCE SUBJECTS V.R. Tomás, G. León, L. García, M.J. Aramburu	7703
TEACHER TRAINING FOR DIGITAL INFORMATION AND COMMUNICATION TECHNOLOGIES INTEGRATION INTO THE CURRICULA DURING THE COVID-19 PANDEMIC R. Zen Cerny, M. Bazzo de Espíndola, D. Monteiro Will	7709
PRE-SERVICE SCIENCE TEACHERS' OPINIONS ON HOW TO DECOLONIZE THE PHYSICAL SCIENCES CURRICULUM BY INCLUDING INDIGENOUS KNOWLEDGE B. Mzilikazi	7718
BRIDGING PROBLEM BASED LEARNING (PBL) TO VALUE CREATION (VC) IN PHYSICS CURRICULUM I. Stroe	7723
THE EXPERIENCE OF COOPERATION BETWEEN A UNIVERSITY AND AN AIRPORT FOR THE RECYCLING OF AIRCRAFT FOR HOUSING B. Serrano Lanzarote, J. Romero, A. Rubio, I. Villanova	7724
FACE-TO-FACE TEACHING: THE OPINION AND THE COMMITMENT OF THE STUDENTS OF PHYSIOLOGY AND PATHOPHYSIOGY III IN THE PHARMACY DEGREE OF THE UNIVERSITY OF BARCELONA	7735
J. Del Valle, C. Pelegrí, À. Franch, M.E. Juan, M. Massot-Cladera, L. Miró, J. Olloquequi, M. Riba, J. Vilaplana, R. Ferrer, R. Martín-Venegas	
TEACHERS OR INFLUENCERS? A NEW MODEL OF EDUCATION BASED ON TRUST J.L. Galdón Salvador, I. Gil Pechuán	7742
VOLUMETRIC COMMUNICATION IN MEDICAL TRAINING - CPR EMERGENCIES <i>K. Pietroszek</i>	7747
AN AUTOMATIZED QUALITY ASSESSMENT SYSTEM BASED ON A NATURAL LANGUAGE INTERFACE FOR EXTRACTION AND PROCESSING OF RAW DATA OF THE EDUCATIONAL SYSTEM G. Totkov, M. Zhekova, H. Kostadinova, G. Pashev	7748
ACADEMIC BURNOUT VS. ENGAGEMENT: A MIXED-TECHNIQUE STUDY AMONG UNDERGRADUATE STUDENTS OF BIOTECHNOLOGY BACHELOR'S DEGREE A. Heredia, C. Barrera, M. Martínez-Gómez, M.C. Rodriguez Monzonis, A. Albors, P. Gutiérrez-Colomer, A. Jiménez-Belenguer, C. Rubio-Michavila	7758
EVALUATION RUBRIC BASED ON BLOOM TAXONOMY FOR ASSESSMENT OF STUDENTS LEARNING THROUGH EDUCATIONAL RESOURCES M. Moreira Gois, M.A. Eliseo, R. Mascarenhas, I. Carlos Alcântara de Oliveira, F. Silva Lopes	7765
USAGE MATTERS: LONGITUDINAL BENEFITS OF COMPUTER-ASSISTED INSTRUCTION FOR EARLY LEARNERS H. Shamir, E. Yoder, D. Pocklington	7775

TEACHERS' INTERACTION STYLES IN ONLINE UNIVERSITY LESSONS R. Miháliková, M. Mesárošová	7783
SUSTAINABLE DEVELOPMENT GOALS APPROACHED THROUGH CHALLENGE BASED LEARNING L. Seguí, C. Barrera, M.L. Castelló, J. García-Hernández, A. Heredia	7790
CHANGES IN COGNITIVE PROCESSING SPEED AFTER REGULAR AND PHYSICAL EDUCATION CLASSES IN EARLY ADOLESCENTS FROM SOUTH TIROL, ITALY A. Cocca, C. Carmignola, M. Niedermeier, M. Kopp, K. Greier, G. Ruedl	7799
THE ROLE OF GAMIFICATION IN THE DEVELOPMENT OF (FAKE) NEWS LITERACY IN HIGHER EDUCATION J. Jäger, C. Eisemann, C. Pimmer	7800
EXPANDING VOCABULARY AND IMPROVING SPEAKING SKILLS THROUGH CONTEXTUALIZED LEARNING D. Bogatova, A. Bogatov, V. Avdeeva, A. Kravchenko, L. Mayorova	7808
EVALUATION OF THE BASIC THEORETICAL AND PRACTICAL TRAINING OF FIREFIGHTING MEMBERS M. Ballay, J. Kubás	7813
OUTCOMES OF THE USE OF VIRTUAL UNIVERSE PRO AS A SUPPORT FOR TEACHING IN AUTOMATION: FIRST STEPS TOWARDS IMMERSIVE EXPERIENCES E. Pérez, P. Merchán	7819
TEACHING APPLIED IT IN SOCIAL SCIENCES FOR ENGLISH SPECIALIZATIONS: INTERNATIONAL STUDENTS' GROUP INTERACTIONS IN DIGITAL SOCIETY TOPICS A.B. Andreica	7826
EFFECTIVENESS OF PEER-TO-PEER CRIME PREVENTION PROGRAM IN THE FIELD OF EDUCATION ABOUT INTERNET SECURITY V. Soltes, V. Adamova, S. Hubocan	7836
STRATEGIES OF THE MEXICAN STATE FOR THE INCLUSION OF INDIGENOUS PEOPLES IN A DIGITAL SOCIETY O. Allende-Hernandez, C. Reyes, L. Sanchez	7842
ARCHITECTURAL SCALABILITY OF TUTORING WITHIN INTELLIGENT TUTORING SYSTEMS A. Ebale Nnemete, L. Capus	7849
FACTORS INVOLVED IN RESPONSIBLE CONSUMPTION BEHAVIOR IN HIGHER EDUCATION STUDENTS: A CASE STUDY M. Martínez-Gómez, E. Bustamante-García, C. Berna Escriche	7860
CHEMISTRY EDUCATION: TEACHING STRATEGIES USED DURING THE FIRST YEAR OF THE PANDEMIC F. Nunes da Silva, A. Grunewald Nichele	7865
ENGLISH AS A FOREIGN LANGUAGE (EFL) UNIVERSITY STUDENTS' ATTITUDES TOWARDS THE USE OF AN AUGMENTED REALITY APP FOR VOCABULARY LEARNING	7873
A. Guamán, L. Villagómez, L. Sánchez	
AN INVESTIGATION ABOUT THE USE OF PADLET FOR CHEMISTRY TEACHING F. Nunes da Silva, G. A. Flores de Almeida, A. Grunewald Nichele	7878
EXPERIENCE OF INTERNATIONAL COLLABORATION BETWEEN UNIVERSITIES AND TECHNOLOGY CENTERS BASED ON THE CASE OF THE DESIGN OF A SMART FAÇADE SYSTEM J. Alarcón Castro	7884
THE EFFECTS OF USING FLIPPED CLASSROOM ON LEARNING CHEMICAL REACTIONS SUBJECT IN THE MIDDLE SCHOOL E. Anjass, E. Aguaded Ramírez	7890
SENIOR CITIZENS AND ICT USE: NEW HORIZONS J. Pange, R. Madlenak, E. Evangelou	7891
FOSTERING STUDENTS' EMPLOYABILITY IN TOURISM AND HOSPITALITY: A CROSS-CUTTING VIEW AT THE ROLE OF HEI AND STUDENTS' PERCEPTIONS C. Melo, S. Vasconcelos, A. Melo	7896
THE USE OF CHATGPT AS A CASE STUDY IN A CHANGE MANAGEMENT STUDY MODULE: TO BAN OR ALLOW? A. Daunoriene, J. Baryniene, V. Jonaitiene	7902
BUILDING CIRCUITS FROM SCRATCH C. de Trazegnies Otero, J.M. Vargas Domínguez	7907

THE IMPACT OF THE COVID-19 PANDEMIC ON TEACHING MATHEMATICS IN INCLUSIVE SECONDARY SCHOOLS: SPECIAL EDUCATORS' VIEWS AND PERCEPTIONS S. Tzivinikou, P. Papadimitriou	791 3
GROUP WORK 2.0 – INTERACTIVE GROUP WORK IN SERIOUS GAMING ENVIRONMENTS V. Göhler, S. Walter	792 3
PRESCHOOLERS' HOME LEARNING ACTIVITIES IN RELATION TO DIFFERENT TYPES OF KINDERGARTENS J. Kvintová, L. Vachova, M. Bucharova, M. Pugnerova, I. Plevova, J.S. Novotny, R. Cuberek	7924
REAL EXPERIENCE WITH THE PROCESS OF RECOGNITION OF PRIOR FORMAL AND NON-FORMAL LEARNING AND WORK EXPERIENCE IN THE FRAMEWORK OF THE ARPEL4ENTREP PROJECT R. Madlenak, S. D'Alessandro, A. Pagano, D. Rasimavičienė, J. Pange	7931
CHALLENGE-BASED LEARNING AS A TOOL FOR THE DEVELOPMENT OF SOCIOEMOTIONAL COMPETENCES IN ARCHITECTURE STUDIES G. Ramírez Pacheco, P. De Mingo Palacios, S. Domínguez Gil, A. San José, B. González-Fierro, P. Miguel-Sin Monge, S. Alonso de los Ríos, S. García Morales	7939
LEARNING THROUGH COMPETITION: AN EVALUATION OF STUDENT PERFORMANCE IN THE DESIGN EVENTS AT THE NATIONAL COLLEGIATE LANDSCAPE COMPETITION J. Walker, T. Schauwecker	7946
SOCIOEMOTIONAL COMPETENCES IN ARCHITECTURE STUDIES: A MATTER OF NEW REQUIREMENTS ON THE LABOR MARKET G. Ramirez Pacheco, B. González-Fierro, P. Miguel-Sin Monge, P. De Mingo Palacios, A. San José, S. Domínguez Gil, J. Armengot Paradinas	7947
LITERACY AND DIGITAL LITERACY: REVISITING FUNDAMENTAL EDUCATIONAL CONCEPTS FOR BETTER INTEGRATION INTO TEACHING AND LEARNING K. Schneider	7955
INTEGRATION OF SUSTAINABLE DEVELOPMENT GOALS (SDG) IN THE CURRICULUM: FINDINGS BASED ON THE ANALYSIS OF HIGHER EDUCATION PROGRAMMES A.S. Albuquerque, S. Fernandes, A. Araújo, P. Morais, E. Barros	7964
MORNING MEETING AS THE CORE OF ORAL COMMUNICATION AND DEMOCRATIC VALUES ALONG THE WHOLE EDUCATIVE SYSTEM: FROM PRESCHOOL TO UNIVERSITY A.B. Abril Les	7972
TEACHING PORTUGUESE TO CHINESE STUDENTS: COMPARATIVE STUDY BETWEEN REMOTE AND IN PERSON TEACHING IN A LANGUAGE IMMERSION CONTEXT C. Mangas	7973
AN EXPERIENCE OF ORGANIZING AN INTERNATIONAL CONTEST IN ROBOTICS ENGINEERING N. Aliane, G. Mariscal	7983
DESIGNING A TOOLKIT FOR TOURISM EDUCATORS: FROM PAPER TO ACTION S. Vasconcelos, C. Melo, A. Melo	7994
STUDENT EXPERIENCE: EXPLORING THE PARADIGM SHIFT WITH INTERNATIONAL POSTGRADUATE STUDENTS D. Nwaozuzu	8001
THE HUMAN-CENTRED COMPUTING EXPERIMENT PLATFORM: A PRACTICAL DESIGN FOR ENGAGING AND ACCESSIBLE STUDENT EXPERIMENT PARTICIPATION Z. Jin, T. Gedeon, S. Caldwell	8008
WORKING TOWARDS A THINKING CLASSROOM IN A LARGE INTRODUCTORY CALCULUS COURSE A.H. Jonsdottir, E.K. Hafsteinsson	8015
VIRTUAL MINERAL RECOGNITION LABORATORY D. Fdez-Aviles Pedraza, J.C. Salazar Calderón, J.E. Ortiz Menéndez, M. García Romo	8020
TO PLAY OR NOT TO PLAY: A SNAPSHOT OF THE CONTRIBUTION OF GAME-BASED APPROACHES IN TOURISM HIGHER EDUCATION C. Melo, S. Vasconcelos, A. Melo	8028

EXPLORING STUDENTS' SELF-REGULATED LEARNING IN ONLINE LEARNING ENVIRONMENTS: THE MULTIMODAL LEARNING ANALYTICS APPROACH L. Juhaňák	8038
FOSTERING ECONOMIC GROWTH IN RURAL COMMUNITIES THROUGH EXPERIENTIAL LEARNING AND ENTREPRENEURIAL LEADERSHIP: A CASE STUDY FROM CENTRAL APPALACHIA, USA J.L. Milan Garcia, P. Hackbert	8046
EFL STUDENTS' PERCEPTION OF THE USE OF GOOGLE CLASSROOM DURING THE COVID-19 PANDEMIC M. Jović, V. Stevanović	8052
EXPERIENTIAL LEARNING AS A KEY FACTOR IN CURRICULUM INTERNATIONALIZATION: HANDS-ON APPROACH TO ENHANCE A STRONG GLOBAL MINDSET IN FACULTY DEVELOPMENT A. Pietraszek	8060
DESIGN THINKING AND SOCIAL INNOVATION IN PLANNING EDUCATION S. Tsenkova	8065
REFLECTION ON TEACHING PEDAGOGY INNOVATION: REIMAGINING HISTORIC PLACES THROUGH DESIGN THINKING S. Tsenkova	8073
EDUCATING INDUSTRIAL DESIGNERS FOR THE DEVELOPMENT OF THE TERRITORY THROUGH INNOVATION DRIVEN DESIGN J. Alarcón Castro, J. Brañes Alarcón, J. Brañes Alarcón, G. Ormeño Bustos	8082
INTEGRATING DESIGN THINKING APPROACHES TO ENHANCE UNDERGRADUATE STUDENT OUTCOMES L. Summers, P. Hackbert	8089
ANOMALY DETECTION IN LEARNING ANALYTICS: FACILITATING DOMAIN EXPERTS' SENSEMAKING OF HETEROGENEOUS STUDENT DATA A. Al Doulat, M.L. Maher	8094
PHOTOVOICE: A TEACHING AND EVALUATION TOOL FOR STUDY ABROAD COURSES M. Navarro	8104
AN INSTRUCTIONAL DESIGN MODEL BASED ON AN INTELLIGENT SITUATIONAL ASSESSMENT FOR DETECTING MATH LEARNING DIFFICULTIES IN ONLINE SPACES	8105
N. Rigaud Téllez, R. Blanco Bautista, J.M. Flores Pérez, A. Rodríguez García, V. Flores Herrera	
CITATION REPOSITORY: A PILOT STUDY IN TEACHING STUDENTS LITERATURE REVIEW SKILLS R. Nieto-Aguilar, A. Aguilera-Méndez, I.A. Nambo-Castro	8113
CO-CURRICULAR PROGRAMMING TO ENHANCE THE UNDERGRADUATE RESEARCH EXPERIENCE: A CONCEPTUAL FRAMEWORK M. Navarro	8117
INVESTIGATION OF IMPACT ON STUDENT PERFORMANCE FROM MODE OF INSTRUCTION AND TYPE OF LEARNING MATERIAL W. Weng, M. Zheng	8118
REMOTE LEARNING OF PHYSICAL PROTECTION STUDENTS DURING THE COVID- 19 PANDEMIC J. Durica, Z. Zvakova	8124
TEACHBACK INTEGRATED WITH PROBLEM SOLVING FOR ENHANCED STUDENT LEARNING M. Rahman, K. Nguyen	8129
READING LITERACY AS AN ELEMENT OF FUNCTIONAL LITERACY I. Balandina, T. Moskvitina, L. Yuzdova, N. Glukhikh, Z. Krovatti, S. Bondarenko, M. Kulakovich	8136
PICTURE THIS: EVALUATING HEALTHCARE EDUCATION USING STUDENT GENERATED PICTORIAL DATA C. Gordon, C. Fletcher	8140
ASSESSMENT AND BACKWARD DESIGN: REFLECTIONS FROM A NEWLY IMPLEMENTED BACCALAUREATE DEGREE PROGRAM N. Rodriguez	8141
EXPLORING THE CLASSROOM ROOTS OF FOREIGN LANGUAGE ANXIETY A. Danilona, O. Rotko	8142

DECONSTRUCTION OF LINGUISTIC AND CULTURAL STEREOTYPES IN MULTILINGUAL GROUPS OF STUDENTS: OVERCOMING THE NARROW LIMITS OF PREJUDICE A.M. Toma	8148
MULTIDISCIPLINARY WITHIN THE AREAS OF CHEMISTRY AS A WAY TO IMPROVE LEARNING OF UNDERGRADUATES IN THEIR FINAL DEGREE THESIS J. Sánchez Bodón, I. Moreno, M. Azkune, A. Goñi, A. Peña, L. Lezama, L. Ruiz-Rubio	8149
DEVELOPMENT OF A KNOWLEDGE DEMONSTRATING/SHARING BLOG IN HEALTH-BASED RADIATION PROTECTION: EXPERIENTIAL LEARNING THAT LEVERAGES THE WEB 2.0 EXPERIENCE OF LEARNERS IN A COMMUNITY OF PRACTICE AND INFLUENCED BY PRESSURES OF THE COVID-19 PANDEMIC I. MacDonald	8153
A COMMODITY MATERIAL AS A MAIN DRIVING FORCE: A PROJECT BASED LEARNING IN POLYMER CHEMISTRY J. Sánchez Bodón, I. Moreno, J.L. Vilas-Vilela, L. Ruiz-Rubio	8154
STUDENT COGNITION IN THE CLASSROOM LEARNING: A PERSPECTIVE FROM TEACHERS M.T.O.V. Peiris	8158
A STUDY ON EDUCATION IN TIMES OF CRISES: COVID 19 AND REMOTE LEARNING V. Gaur	8168
TEACHER AND LEADER VACANCY CRISIS IN VIRGINIA, UNITED STATES K. Cassada	8177
MONITORING AND TRACING MOVEMENT AND CONTACT OF INDIVIDUALS IN HEALTHCARE FACILITIES THROUGH THE COV-ID PROJECT L. Mariš, A. Velas	8178
I WILL SURVIVE! - TEACHING STUDENTS IN EMERGENCY AND NATURAL DISASTER MANAGEMENT SKILLS L. Mariš, M. Lusková	8182
LEARNING WITH 512. A PROPOSAL FOR THE ACTIVE RECOVERY OF POST-PANDEMIC LEARNING FOR PRESCHOOL BOYS AND GIRLS INTEGRATING FAMILY AND SCHOOL A. Espanol, M. Cabrera, M. Guzman, R. Blais	8187
ALL ABOARD: A COMPREHENSIVE PROPOSAL FOR SCHOOL HEALTH AND PREVENTION A. Espanol, M. Cabrera, M. Guzman, R. Blais	8188
AFTER THE PANDEMIC, DO HEI PROFESSORS STILL FEEL THE NEED TO IMPROVE THEIR ONLINE TEACHING SKILLS? M. Montanari, F. Martinez de Carnero, G. Cibulskis, D. Pantazatos, M. Grammatikou, K. Dostatnia, R. Teles	8189
STATISTIC MOOC: A DESIGN PROPOSAL C. Martinho, C. Silvestre, C. Luz, C. Nunes	8195
BOOSTING AGILE PROJECT-BASED TEACHING AND LEARNING THROUGH AN ONLINE COMMUNITY OF PRACTICE K. Nikolakopoulou, C. Pierrakeas, A. Kameas	8200
ENHANCING ICT SKILLS OF MANAGEMENT EDUCATORS WITH THE OLMEDU MOOC AND TOOLKIT A. Kameas, A. Achilleos, G. Vonitsanos, F. Gatomati, P. Kyriakou	8210
THEMATIC ANALYSIS OF FACTORS INFLUENCING INDIAN STUDENTS' AND THEIR ACHIEVEMENT IN UK HIGHER EDUCATION M. Kanubhai Patel, H. Cui, M. Opoku Agyeman	8219
THEMATIC ANALYSIS OF FEMALE SOFTWARE DEVELOPERS' WORKPLACE EXPERIENCE IN NIGERIAN COMPANIES A. Shamsudeen Imam, M. Opoku Agyeman	8229
TO EMBRACE, OR NOT TO EMBRACE: CHATGPT IS THE QUESTION J. Murray, A. Williamson	8239
COVID-19 HERITAGE: ARE SPANISH PROFESSORS TREASURING THEIR ONLINE TEACHING EXPERIENCE?	8246
M. Montanari, F. Martinez de Carnero, A. Hernando García-Cervigón, E. Garayzábal Heinze, P.C. Bonnin Arias, L. Sanz Simon	

CURSE OR OPPORTUNITY: ONLINE LEARNING AFTER THE COVID EMERGENCY FROM THE ITALIAN PROFESSORS' POINT OF VIEW M. Montanari, F. Martinez de Carnero, S. Celani, G. Di Flumeri, V. Ronca, R. Capotorto	8251
LEARNING MANAGEMENT SYSTEMS AFTER LOCKDOWN A CASE STUDY OF POST GRADUATE CERTIFICATE IN EDUCATION STUDENTS IN SOUTH AFRICA N. Nosihle	8261
THE LEARNING MODEL MARTAPURA: IS IT EFFECTIVE IN IMPROVING STUDENTS' CREATIVITY AND MULTIPLE INTELLIGENCE? A.R. Agusta, A. Suriansyah, D.A. Pratiwi, B.B. Wiyono, N. Noorhapizah	8262
A COMPARATIVE ASSESSMENT OF EMPLOYMENT CHALLENGES OF STUDENTS IN UNIVERSITY OF NORTHAMPTON BEFORE AND AFTER THE CORONA VIRUS LOCKDOWN: A CASE OF NIGERIAN STUDENTS I. Abigail Osunkojo, M. Opoku Agyeman, H. Cui	8277
THE CONSEQUENCES OF ONLINE LEARNING ON THE GRADES OF NIGERIAN INTERNATIONAL STUDENTS DURING THE COVID-19 LOCKDOWN AT UNIC, UK E. Kehinde Egedson, M. Opoku Agyeman	8288
EXPLORING THE RELATIONSHIP BETWEEN LANGUAGE BARRIER AND THE POOR PERFORMANCE OF BAME/INTERNATIONAL STUDENTS IN THE UNITED KINGDOM UNIVERSITIES P. Alunyo Bello, M. Opoku Agyeman	8298
IMPLEMENTING TOKENS FOR PERSONALIZED LEARNING IN A BIOMEDICAL ENGINEERING PROGRAM: LESSONS LEARNED AND FUTURE CONSIDERATIONS E. Alvarez, R. Striker, D. Ewert	8308
INFORMAL EDUCATION AND ITS IMPACT ON JOB MARKET: ANALYSIS AND RECOMMENDATIONS FOR THE FUTURE N. Dominguez-Vergara	8315
A SYSTEMATIC REVIEW OF VIRTUAL REALITY AND USER EXPERIENCE IN MEDICINE G. Atas, D. Topalli, N.E. Cagiltay	8325
CHALLENGES AND SOLUTIONS FOR THE AGING FACULTY POPULATION AT THE UNIVERSIDAD AUTÓNOMA METROPOLITANA (UAM) N. Dominguez-Vergara	8332
TEAM MOTIVATION AND COMMUNICATION AS KEY FOR ASSESSING THE QUALITY OF SCHOOL PERFORMANCE I. Bilbokaitė-Skiauterienė, R. Bilbokaitė, G. Petrauskienė	8342
TRENDS IN CHILDREN'S INDEPENDENT READING AND MOTIVATION: THE CONTEXT OF PEDAGOGUES' OPINIONS I. Bilbokaitė-Skiauterienė, R. Bilbokaitė	8349
INTERNATIONAL PROJECTS, CHALLENGES AND BEST PRACTICES D. Cagáňová, N. Horňáková	8357
FACTORS INFLUENCING INTERNATIONAL STUDENTS' DECISION-MAKING WHILE CHOOSING A STUDY DESTINATION: A COMPARISON BETWEEN GERMANY AND UNITED KINGDOM L. Jeena Prasad, M. Opoku Agyeman	8365
THE IMPACT OF SELF-SPONSORSHIP ON ACADEMIC PERFORMANCE AMONG UNDERREPRESENTED ETHNIC MINORITIES IN THE UNITED KINGDOM O. M. Osadugba, M. Opoku Agyeman	8374
INTEGRATED APPROACH IN TEACHING LANGUAGE DURING PHYSICAL EDUCATION CLASSES IN MULTILINGUAL COMMUNITIES G.A. Necula	8383
ENHANCING ELEMENTARY SCHOOL STUDENTS' ENVIRONMENT AWARENESS THROUGH VIRTUAL REALITY BASED IMMERSIVE LEARNING EXPERIENCES D. Sulisworo, V.Y. Erviana, B. Robiin	8384
THE COOPERATION BETWEEN UNIVERSITY-INDUSTRY-SCIENCE ELEMENTS M. Dakova	8391
DIGITAL TOOLS FOR PROFESSIONAL DEVELOPMENT IN CLASSES OF ENGLISH FOR SPECIFIC PURPOSES E. Polyudova	8398
THE EFFECT OF COMPUTATIONAL ACTION ON STUDENTS' COMPUTATIONAL IDENTITY AND SELF-EFFICACY H.N. Pang, R. Parks, C. Breazeal, H. Abelson	8404

QTL MAPPING MADE EASY: A PRACTICAL TUTORIAL USING R/QTL G. Villanueva, E. Rosa-Martínez, S. Vilanova, P. Gramazio, J. Prohens, M. Plazas	8413
CHROMOSOME VISUALIZATION WITH INTROGRESSIONS: A TUTORIAL USING TASSEL AND GGT2 SOFTWARE G. Villanueva, E. Rosa-Martínez, S. Vilanova, P. Gramazio, J. Prohens, M. Plazas	8419
EMBEDDING SUSTAINABILITY INTO THE EDUCATION OF HEALTH PROFESSIONALS A. Flynn	8423
NURSES' ATTITUDES TO SUSTAINABILITY A. Flynn	8424
IMPROVING THE EXPERIENCE OF OLDER ADULT LEARNERS M. Velciu	8425
TEACHING SUSTAINABLE ENTREPRENEURSHIP USING CHALLENGE-BASED LEARNING METHODS F. Stel	8430
MODEL OF EDUCATIONAL EXPERIENCE IN SPOKEN DIALOGUE SYSTEMS FOR LANGUAGE LEARNING E. Ericsson	8441
FLIPGPT - PILOT EXPERIMENT: EXPLORING THE POTENTIAL OF AI IN HIGHER EDUCATION T.B. Godinho, J. Mouro, N.R. Oliveira	8442
DEVELOPMENT OF AN E-LEARNING PROGRAM WITH 'EASY JAPANESE' FOR TRAINING MEDICAL INTERPRETERS N. Ono, T. Hamai, J. Okabe	8443
ENHANCING EFFECTIVE LEARNING EXPERIENCES IN CHALLENGING TIMES: A REVIEW OF THE MODELS FOR ONLINE LEARNING A. Gogus	8444
USING DIGITAL RHYTHM TRAINING TO IMPROVE READING FLUENCY IN CHILDREN	8445
A. Giannakopoulou, T. Zanto, C. Gallen, A. Ostrand, J. Younger, R. Anguera, J. Anguera, A. Gazzaley COACHING BY LEADERS IS IN DEMAND BUT GOOD LEADERS AS COACHES ARE HARD TO FIND J. Milner	8446
DIALOGIC TEACHING IN THE ESP CLASSROOM: CHALLENGES AND SOLUTIONS I. Bocianu	8447
RUBRICS FOR ASSESSMENT: IMPROVING THE ROLE OF THE RATER K.A. Martinez Algeciras, P. Elosua Oliden	8454
BUSINESS STUDENTS INVEST THEIR TIME IN COMPLEX AND CHALLENGING PROCESS DIGITALIZATION TASKS INSTEAD OF PREPARING FOR THE EXAM A. Dannecker	8461
PEER INFLUENCES ON THE LONG-TERM DEVELOPMENT OF HIGHLY SKILLED AND LESS SKILLED VOLLEYBALL PLAYERS P. Coutinho, C. Bessa, I. Mesquita	8468
CAN HETEROGENEOUS GROUP IMPROVE MORE STUDENTS' GAME INVOLVEMENT THAN HOMOGENEOUS GROUP IN PE? C. Bessa, B. Vilaça, C. Farias, I. Mesquita	8469
FOSTERING CROSS-CULTURAL UNDERSTANDING THROUGH TECHNOLOGY-LED EDUCATIONAL PRACTICES:PERSPECTIVES FROM GREEK TEACHERS I. Lefkos, E. Chanioti, M. Karatsiori	8470
IMPROVING THE MOOD AND WELL-BEING OF MUSIC STUDENTS THROUGH MUSIC THERAPY M.D. Rucsanda, A. Belibou, A.I. Rucsanda, N. Karacsony	8471
THE IMPACT OF EMERGENT LITERACY AND COGNITIVE LINGUISTIC SKILLS ON ESL READING SUCCESS IN SOUTH AFRICA: IMPLICATIONS FOR TEACHERS AND POLICYMAKERS A. van Staden	8479
OVERCOMING COMMUNICATION OBSTACLES CAUSED BY THE COVID-19 PANDEMIC IN BANGLADESH: RECOGNITION OF ZOOM AS AN IMMINENT TECHNOLOGICAL ASSET R. Hossain	8489

EVALUATION OF THE PUBLIC MANAGEMENT DEGREE (ISCAP – PORTO) A.A. Pereira, T. Teixeira	8500
TEACHERS' PERSPECTIVES ON THE USE OF HUMANOID ROBOTS AT PRIMARY AND SECONDARY EDUCATION LEVEL, WITH A FOCUS ON NATIVE LANGUAGE TEACHERS M. Kerneža, D. Zemljak	8504
VIDEO LECTURES – THE DIGITAL ASSISTANT IN THE HIGHER MATHEMATICS EDUCATION PROCESS AT RIGA TECHNICAL UNIVERSITY I. Volodko, S. Cernajeva	8512
THE DEVELOPMENT DIRECTIONS OF TEACHERS' TRAINING STUDY PROGRAMS IN LATVIA J. Davidova, S. Zarina, I. Kokina	8517
CREATION AND TRANSFER OF KNOWLEDGE AND THE CONTRIBUTION OF HEI TO ECONOMIC DEVELOPMENT M. Dakova	8525
HOW ANYONE IN EDUCATION CAN FURTHER INSTRUCTIONAL IMPACT WITH AI TOOLS M. Macfarlan	8531
EVALUATING EFFORT, NOT PERFECTION, INCENTIVISES IMPROVEMENT IN ACADEMIC PERFORMANCE O. Lewandowska, M. Sama	8532
SOCIAL MEDIA AS A TOOL OF MOTIVATION AND LEARNING OF BASIC AND TRANSVERSAL SKILLS OF GASTRONOMY AND CULINARY ARTS STUDENTS A. Valdés García, S. Ortiz Calabuig, M. Mateo Tomás, E. Fuster Aparicio, B. Orts Romero, A.G. Martín Blanco, P. Fullana Puig, L. Blanco Domínguez, J.D. Jordá Guijarro, R.M. Torres Valdés	8533
THE ROLE OF INFORMAL LEARNING PROGRAMS IN THE RELATIONSHIP BETWEEN INTEREST, PERCEPTION, AND PARTICIPATION OF STUDENTS IN STEM EDUCATION Z. Ahmad	8534
AUCTIONS, A.I., AND "ART COURT": A GAMIFIED AND INCLUSIVE APPROACH TO ARTS CURRICULUM L. Dade	8535
ATTITUDES OF TRAINEE ENGLISH TEACHERS TOWARDS THE USE OF LITERATURE IN EFL TEACHING L. Kocianova	8536
CHALLENGES AND BARRIERS FACED BY LANGUAGE LEARNERS WHEN STUDYING LITERATURE IN THE TARGET LANGUAGE L. Kocianova	8542
MICRO-CREDENTIALS IN DIGITAL FORM - LIFELONG DEVELOPMENT PATH M. Nowakowski	8543
TRANSLANGUAGING IN ACTION AT A BILINGUAL INSTITUTION OF HIGHER EDUCATION: ST. AUGUSTINE COLLEGE SHOWCASE J. Villegas	8544
THE PERCEPTION OF THE UNIVERSITY STUDENTS OF THE USE OF CHATGPT DURING THE UNIVERSITY EDUCATION: CASE OF TURKEY G. Sart	8545
THE EFFECTS OF THE EFFECTIVE USAGE AND THE DEVELOPMENT OF TECHNOLOGY AS 21ST CENTURY SKILLS ON UNIVERSITY STUDENTS' SELF-CONFIDENCE G. Sart	8546
THE USE OF DIGITAL ESCAPE ROOM AND GAMIFICATION TOOLS IN MANAGERIAL SKILLS AND THEIR IMPACT ON LEARNING AND STUDENTS' SATISFACTION	8547
J. Barrena-Martínez, J. de Frutos-Belizón, M.J. Foncubierta- Rodriguez, F. Guerrero-Alba, J.A. Medina-Garrido, T. Rodríguez-Gonzalez, M. Ruiz-Martinez	
MOBILE TECHNOLOGY IMPACT IN SUPPORT NOTE-TAKING AND SHARING ACTIVITIES DURING EDUCATIONAL BIOLOGY FIELD TRIPS T. Becker	8548
POST-COVID-19 ADAPTATION: THE SHIFT TOWARDS ONLINE LEARNING AND THE IMPLICATION FOR MATHEMATICS TEACHER PREPARATION IN HIGHER EDUCATION INSTITUTIONS B. Olamale W. Hendricks V. Mncube	8549

IMPROVING SECONDARY SCHOOL STUDENTS' ACHIEVEMENT IN TRIGONOMETRY USING GAME BASED LEARNING APPROACH M. Mosimege, F. Egara	8556
GENDER DIFFERENCE IN SECONDARY SCHOOL STUDENTS' RETENTION OF MATHEMATICS CONCEPTS: A FLIPPED CLASSROOM LEARNING APPROACH F. Egara, M. Mosimege	8566
PRE-SERVICE TEACHERS' EXPERIENCES OF LEARNING ECONOMICS EDUCATION: THE CASE OF THE MULTIPLIER EFFECT, SIMPLE KEYNESIAN MODEL M. Mphuthi, M. Kimanzi	8574
ONLINE EDUCATIONAL TECHNOLOGIES AS A CURRICULUM APPROACH IN TEACHING AND LEARNING FOR FIRST YEAR PRE-SERVICE TEACHERS M. Mphuthi, M. Tshelane	8582
TEACHER EDUCATION AND REFLECTIVE PRACTITIONER DEVELOPMENT: THE IMPACT ON EDUCATIONAL LEADERSHIP E. Seghedin	8590
WHAT HAS CHANGED? AN INSIGHT ON COMMUNIST'S YOUTH PERSPECTIVE ON EDUCATION S. Nitu, E. Seghedin	8591
RETHINKING SCHOOL BUSINESS PARTNERSHIPS TO DRIVE COLLABORATION AND INNOVATION IN PUBLIC SCHOOLS: A CASE OF SOUTH AFRICAN PUBLIC SCHOOLS IN LIMPOPO PROVINCE M. Lamola	8598
TRANSFORMING THE INDUSTRIAL & ACADEMIC CAPABILITY DEVELOPMENT SYSTEM TO ADDRESS SOCIAL & GOVERNMENT PRIORITIES FOR A SUSTAINABLE FUTURE IN PAKISTAN F. Azmat, K. Stansfield, R.F. Colmenares Quintero, M.B. Khan	8606
EARLY CHILDHOOD EDUCATORS' BELIEFS AND KNOWLEDGE CONSISTENTLY INFORMS THEIR LITERACY DEVELOPMENT AND LITERACY LEARNING ENVIRONMENTS L.A. Kahla	8614
PERCEPTIONS OF PARENTS ON THE SOUTH AFRICAN EARLY CHILDHOOD DEVELOPMENT CENTRES N. Skota-Dayile, M.S. Mkhomi	8619
"WE ARE ON OUR OWN"- LIVED LEARNING EXPERIENCES OF LEARNERS FROM CHILD-HEADED HOUSEHOLDS T. Ngqushwa, M.S. Mkhomi	8625
ORANGE CANVAS - BUSINESS MODEL FOR CREATIVE INDUSTRIES F. Palma, R. Rodriguez, V. Ferrari	8632
FRAMEWORK FOR IMPROVING SPEAKING SKILLS IN GRADE 4 ENGLISH FIRST ADDITIONAL LANGUAGE LEARNERS DURING ENGLISH LESSONS IN RURAL AREAS M.A. Linake, F. Liziwe, C. Kleinbooi	8638
GRADE FOUR TEACHERS' EXPERIENCES ON USING ENGLISH AS A MEDIUM OF INSTRUCTION: A CASE STUDY OF TWO PRIMARY SCHOOLS IN MDANTSANE TOWNSHIP L.A. Kahla, M. Ngozi, E. Adu, M.A. Linake	8647
THE DEVELOPMENT OF LEARNING COMPETENCES OF PRIMARY SCHOOL CHILDREN BASED ON A CASE STUDY IN NORTH-RHINE-WESTPHALIA, GERMANY K. Knees	8651
A DIGITAL LEARNING GAME ON BUILDING AWARENESS AND SKILLS TOWARDS NATURAL RESOURCES MANAGEMENT H. Tsalapatas, O. Heidmann, G. Senka, T. Jesmin, J. Terasmaa, C. Vaz de Carvalho, M. Caeiro	8652
VIRTUAL TRIP: EXPLORING A 360-DEGREE MUSEUM FOR STUDENTS WITH IMMERSIVE EXPERIENCE S. Tanabashi	8653
ANALYSIS ON THE BLENDED TEACHING MODEL OF FOREIGN LANGUAGES BASED ON FLIPPED CLASSROOM $N.\ Ta$	8654
REVEALING PATTERNS OF STUDENT ONLINE LEARNING BEHAVIORS THROUGH LATENT PROFILE ANALYSIS F. Gao, E. Mandell, L. Li	8655

THE PASSIVE VOICE: CHALLENGES AND SUGGESTIONS FOR ENGLISH LANGUAGE TEACHING O. Rotko, A. Danilova

8656