International Journal of Instruction

Abstracting / Indexing

ESCI - Emerging Sources Citation Index
ERIC - Education Resources Information Center
Scopus

EBSCO:
The Belt and Road Initiative Reference Source
Education Research Complete
Education Source
Index Copernicus™
Cabell's Directory
DOAJ - Directory of Open Access Journals
Academic Journals Database
EdNA Online Database
ERA - Educational Research Abstracts Online
Electronic Journals Library
Genamics JournalSeek
Ulrich’s Periodicals Directory

Note: International Journal of Instruction has a wide range of abstracting/indexing services. However, the index services have the right of one-sided termination of the contracts and not to publish any of the articles. Therefore, we do not accept any responsibilities caused by indexing problems.
Advisory Board

Assoc. Prof. Fasasi Yunus Adebunmi, NIGERIA  Asst. Prof. Rula Khzouz, JORDAN
Asst. Prof. Abdelrahman Mohamed Ahmed, OMAN  Prof. Abdurrahman Kilç, TURKEY
Assoc. Prof. Orhan Akınoglu, TURKEY  Prof. Remzi Y. Kincal, TURKEY
Dr. Mohammad Akram, SAUDI ARABIA  Prof. Val Klenowski, AUSTRALIA
Assoc. Prof. Nor A. Alias, MALAYSIA  Asst. Prof. Yee Lai Kelly KU, HONG KONG
Prof. Akmatali Alimbekov, KYRGYZSTAN  Prof. Colin Lankshear, AUSTRALIA
Assoc. Prof. Ali Al-Issa, OMAN  Prof. Kar-Tin Lee, AUSTRALIA
Prof. Khaled Al-Ajlouni, JORDAN  Assoc. Prof. Hsin-Chih Lin, TAIWAN
Asst. Prof. Hussain Alkharusi, OMAN  Dr. Hussain Ahmed Liton, SAUDI ARABIA
Prof. Isela Almaguer, USA  Assoc. Prof. Feng-Jung Liu, TAIWAN
Assoc. Prof. Abdu Mohammed Al-Mekhlaf, OMAN  Assoc. Prof. Manuel Lucero, SPAIN
Prof. Waleed K. A. Ahmed Alzand, KUWAIT  Assoc. Prof. Zdena Lustigova, CZECH REPUBLIC
Prof. Abdullah Ambusaidi, OMAN  Prof. Ian Macdonald, AUSTRALIA
Prof. Neil J. Anderson, USA  Prof. Lazarus Ndiku Makewa, KENYA
Assoc. Prof. Derek L. Anderson, USA  Asst. Prof. MD. Saiful Malak, BANGLADESH
Prof. Joel B. Babalola, NIGERIA  Prof. Robin D. Mason, UNITED KINGDOM
Assoc. Prof. Evangelos Bebetsos, GREECE  Assoc. Prof. Mark A. Minott, CAYMAN ISLANDS
Assoc. Prof. Santosh Kumar Behera, INDIA  Dr. Norma T. Nemeh, JORDAN
Assoc. Prof. Thalia Bellali, GREECE  Prof. Nel Noddings, USA
Assoc. Prof. Mary Jo Garcia Biggs, USA  Prof. Yngve Troye Nordkvelle, NORWAY
Prof. Larry Boles, USA  Ngboawaji Daniel Nte, NIGERIA
Prof. Dele Braimoh, SOUTH AFRICA  Eylem Oruç, TURKEY
Prof. Robert Burden, UNITED KINGDOM  Prof. M. Çağatay Özdemir, TURKEY
Prof. Marilyn Campbell, AUSTRALIA  Dr. Deborah Osberg, UNITED KINGDOM
Assoc. Prof. G. Nathan Carnes, USA  Serkan Padem, TURKEY
Dr. Carmencita L. Castolo, PHILIPPINES  Prof. Santosh Panda, INDIA
Assoc. Prof. Yong-Fu Chang, TAIWAIN  Prof. Hitendra Pillay, AUSTRALIA
Dr. Lockias Chitamana, ZIMBABWE  Prof. Reza Pishghadam, IRAN
Prof. Che Kum Clement, BANGLADESH  Prof. Ken Purnell, AUSTRALIA
Prof. Dale Cook, USA  Prof. Christoph Randler, GERMANY
Prof. Valentina Dagiene, LITHUANIA  Prof. Norman Reid, UNITED KINGDOM
Assoc. Prof. Patrick Alan Danaher, AUSTRALIA  Dr. Heri Retnawati, INDONESIA
Asst. Prof. Jagannath K. Dange, INDIA  Prof. Sushanta Kumar Roul, INDIA
Asst. Prof. Şahin Danişman, TURKEY
Asst. Prof. Ajay Das, USA
Prof. Estella De Los Santos, USA
Asst. Prof. Ibrahim Delen, TURKEY
Prof. Ugur Demiray, TURKEY
Assoc. Prof. Esra Dereli, TURKEY
Assoc. Prof. Yannis Dimitriadis, GREECE
Asst. Prof. Mohamed Elsaadani, EGYPT
Prof. Noriko Fujioka-Ito, ABD
Prof. M. Jayne Fleener, USA
Assoc. Prof. Kristin A. Gansle, USA
Assoc. Prof. Lynn Kelting-Gibson, USA
Prof. Margarita Victoria Gomez, BRAZIL
Prof. Lena Green, SOUTH AFRICA
Asst. Prof. Semra GÜNGÖR, TURKEY
Prof. Carol Hall, UNITED KINGDOM
Prof. Amani Hamdan, SAUDI ARABIA
Assoc. Prof. Jace Hargis, USA
Asst. Prof. Seyed Ahmad Hashemi, IRAN
Dr. Mark van’t Hooft, USA
Dr. Ghazi Adib Mustafa Husnieh, JORDAN
Asst. Prof. Irshad Hussain, PAKISTAN
Jaya Nur Iman, INDONESIA
Prof. Majed Abu Jaber, JORDAN
Assoc. Prof. Jason D. Johnson, UAE
Asst. Prof. Troy Jones, USA
Prof. William E. Doll, Jr., USA
Norma A. Juarez Collazo, BELGIUM
Prof. Gregory J. Kelly, USA
Assoc. Prof. Shahadat Hossain Khan, BANGLADESH
Asst. Prof. Muhammad Imran Yousuf, PAKISTAN
Prof. Abdalla Mohamed Khataybeh, JORDAN
Prof. Peter A. Rubba, USA
Prof. Despina Sapountzi-Krepa, CYPRUS
Prof. Barbara Seidemann, SWITZERLAND
Assoc. Prof. Yilfashewa Seyoun, ETHIOPIA
Dr. Afsaneh Sharif, CANADA
Nazia Sharif, PAKISTAN
Prof. Ramesh Chander Sharma, INDIA
Asst. Prof. Laurie A. Sharp, USA
Prof. Ju-Ling Shih, TAIWAN
Asst. Prof. Mahesh B. Shinde, INDIA
Assoc. Prof. Hosin Shirvani, ABD
Assoc. Prof. Harison Mohd Sidek, MALAYSIA
Assoc. Prof. Parlimundang Sinaga, INDONESIA
Assoc. Prof. Richard B. Speaker, Jr., USA
Prof. N. Suzanne Standerford, USA
Prof. Howard Stevenson, UNITED KINGDOM
Dr. Simon Stobart, UNITED KINGDOM
Assoc. Prof. Pei-Chen Sun, TAIWAN
Prof. Karen Swan, USA
Prof. Jim Taylor, AUSTRALIA
Prof. Siew Ming Thang, MALAYSIA
Prof. Y. Gürcan Ültanir, TURKEY
Dr. Muhammad A. Wahid Usmani, SAUDI ARABIA
Prof. Erwin Wagner, GERMANY
Assoc. Prof. Michael Whitacre, USA
Asst. Prof. Julia Wilkins, USA
Dr. Kung Teck Wong, MALAYSIA
Asst. Prof. Chia Jung Yeh, USA
Prof. Ali Yildirim, TURKEY
Prof. Allan E. Young, CAYMAN ISLANDS
Assoc. Prof. Muhammad Imran Yousuf, PAKISTAN
Dr. Yunisrina Qismullah Yusuf, INDONESIA
Prof. Galip Yüksel, TURKEY
Assoc. Prof. Eleni Zetou, GREECE
Contents

From the Editor: Research into Technology Enhanced Learning: Do we Really Need a Control Group?
Eric Sanchez........................................................................................................................................i-iv

Knowledge Sharing Behavior in the Curricula of United Arab Emirates Universities and Educational Organizations
Hani Yousef Jarrah, Mohammad Salman Alkhazaleh.............................................................................1-16

Development of Smartphone App as Media to Learn Impulse-Momentum Topics for High School Students
Johannes VD Wirjawan, Daniel Pratama, Elisabeth Pratidhina, Anthony Wijaya, Budijanto Untung, Herwinarsosphos.................................................................17-30

Innovative Organization’s Components in Basic Education Institutions in Thailand
Aniruth Boonkua, Ampapan Tuntinakornpal, Pariyaporn Tangkanan......................................................31-42

Instructional Methods and Self-Regulated Learning in Writing
Mutiarani Pionera, I Nyoman Sudana Deseng, Utami Widiati, Punaji Setyosari......................43-60

Causes and Effects of the Division Algorithm Applied in Ecuadorian Education
Mendoza Velazco Derling José, Cejas Martinez Magda Francisca, Navarro Cejas Mercedes, Flores Hinostroza Eliseth Mayrene, Vega Falcón Vladimir................................................61-74

Guided Discovery Problem-Posing: An Attempt to Improve Science Process Skills in Elementary School
Suryanti, Wahono Widodo, Widowati Budijastuti..............................................................................75-88

Preparing for Industry 4.0 – Will youths have enough essential skills?: An Evidence from Thailand
Wilert Puriwat, Suchart Triñopsakul........................................................................................................89-104

New Language Learning Environment: Employers’ - Learners’ Expectations and the Role of Teacher 4.0
Tatiana Peredriennko, Oxana Belkina, Elena Yaroslavova.................................................................105-118

Why I’m Bored in Learning? Exploration of Students’ Academic Motivation
Helsa Graciani Hidajat, Fattah Hanurawan, Tutut Chusniyah, Hetti Rahmawati.................................118-136

Beliefs and Classroom Assessment Practices of English Teachers in Primary Schools in Thailand
Arthitaya Narathakoon, Sutthirak Sapsirin, Pramarn Subphadoongchone...........................................137-156

Validity and Practicality of the Biotechnology Series Learning Model to Concept Mastery and Scientific Creativity
Iwan Wicaksono, Sapeno, Aris Singgih Budiarsos.............................................................................157-170

Comparison between Group Discussion Flipped Classroom and Lecture on Student Achievement and Student Characters
Putu Sudarmika, I Wayan Santyasa, Deva Gede Hendra Divayana.....................................................171-186

The Effect of a Dual Coding Technique on Idiom Interpretation in ESL/EFL Learners
Denis Samburskiy..............................................................................................................................187-206

Unplugged Coding Using Flowblocks for Promoting Computational Thinking and Programming among Secondary School Students
Arinchaya Threekunprapa, Pratchayapong Yasri...........................................................................207-222
The Effect of Parenting Patterns and Empathy Behavior on Youth Prosocial
Syahril, Syamsu Yusuf, Ilfiandra, Sofwan Adiputra .......................................................... 223-232

Effectiveness of Environmentally-Based Science Learning towards Environmentally-Friendly Character of Students in Coastal Area
Elya Nusantari, Ramli Utina, Abubakar Sidik Katili, Yowan Tana, Insar Damapolii ......... 233-246

The Impact of Englishgame-Based Mobile Application on Students’ Reading Achievement and Learning Motivation
Nina Sofiana, Husni Mubarok ................................................................................................ 247-258

Improving Social Skills through Structured Playfulness Program in Preschool Children
Marina Terst, Ourania Matsouka .......................................................................................... 259-274

Effect of Concept Attainment Models and Self-Directed Learning (SDL) on Mathematics Learning Outcomes
Moch. Sukardjo, Mohamad Salam ......................................................................................... 275-292

Effectiveness of Disney’s NLP-based Strategy to Improve Student’s Higher Order Thinking Skills
Mohamad Tahar Mohamad Amirudin, Salmiza Saleh ............................................................ 293-306

The Correlation of Scientific Knowledge-Science Process Skills and Scientific Creativity in Creative Responsibility Based Learning
Zainuddin, Sayidah, Dewi Dewantara, Sayidah Mahtari, Mohamad Nur, Leny Yuwanta, Titin Sunarti ................................................................. 307-316

Measuring the Importance of Non-Technical Skills for Integration into Metalwork Technology Curriculum Using Structural Equation Modelling
Bakare Shola Francis, Azlan Abdul Latib, Evarina Amiron, Kamalularifin Subari, Yusri Kamin ................................................................. 317-328

Effectiveness of CEL-Badis Learning Model on Students’ Creative-Thinking Skills: Case on the Topic of Simple Food Biotechnology
Idam Ragil Widianto Atmojo, Sajidan .................................................................................. 329-342

The Effectiveness of Mobile Augmented Reality Assisted STEM-Based Learning on Scientific Literacy and Students’ Achievement
Yuliana Wahyu, I Wayan Suastra, I Wayan Sadia, Ni Ketut Suarni ........................................ 343-356

Does the Teaching and Learning Process in Primary Schools Correspond to the Characteristics of the 21st Century Learning?
Lalu Sumardi, Arif Rohman, Dwi Wahyudiati ....................................................................... 357-370

The Analysis of Using Active Learning Technology in Institutions of Secondary Vocational Education

Implementing Immediate Feedback with Unlimited Plus Bonus Points to Increase College Student Learning Motivation and Achievement
Riyanto, Diah Aryulina ........................................................................................................... 387-400

The Development of Student Motivation to Learn English at a University in Mexico
Peter Reilly ............................................................................................................................. 401-416
Computer- vs. Mobile-Assisted Learning to Promote EFL Students’ Speaking Skills: A Preliminary Classroom-Based Research
Yudi Juniardi, Lina Herlina, Arif Husein Lubis, Imranwaty, John Pahamzah.................................417-432

Instructional Materials for Discovery Learning with Cognitive Conflict Approach to Improve Vocational Students’ Achievement
Gunawan, Kosim, P. Ayu Suci Lestari..........................................................................................433-444

Insights from Saudi Student Teachers: Successes and Challenges
Hiya Almazroa..........................................................................................................................445-460

The Effect of Van Hiele Learning Model on Students’ Spatial Abilities
I Gusti Ngurah Pujaawan, I Putu Pasek Suryawan, Dewa Ayu Ari Prabawati..............................461-474

Evaluation of the Teachers’ Acceptance to E-Report Card Applications with the Hot-Fit Model Approach
Ketut Agustini, I Gede Mahendra Darmawiguna, I Kadek Dwi Artayasa, I Nengah Eka Mertayasa.................................................................475-490

Students’ Competence in Cognitive Process and Knowledge in Biology Based on Curriculum Used in Indonesia
Paidi Paidi, Isora Sartika Mercuriani, Bambang Subali..................................................................491-510

A Longitudinal Study for the Relationship between Motor Coordination and Body Mass Index in Primary School Children
Dimitra Doloma, Antonios Kambas, Nikolaos Aggeloussis, Maria Michalopoulou..........................511-524

The Effectiveness of Collaborative Creativity Learning Models (CCL) on Secondary Schools Scientific Creativity Skills
Sri Astutik, Endang Susantini, Madlazim, Mohamad Nur, Supeno..................................................525-538

Development of an Instructional Model with Augmented Reality Technology for Vocational Certificate Students
Theeraphant Pipattanasuk, Alisa Songsriwittaya..............................................................................539-554

Effectiveness of Process Oriented Guided Inquiry Learning with Peer Feedback on Achieving Students’ Mathematical Reasoning Capabilities
Kartono, Rena Yuliantika Shora..................................................................................................555-570

Values of Tolerance in Relation to Academic Achievements, Cultures, and Gender among UAE Universities Students
Salwa AlMajali, Khalid AlKhaaladi..............................................................................................571-586

Authentic Assessment for Speaking Skills: Problem and Solution for English Secondary School Teachers in Indonesia
M. Zaim, Refnaldi, Safnil Arsyad..................................................................................................587-604

Using the Mother Tongue in Foreign-Language Learning: Secondary School Students in Kazakhstan
Lyazzat Beisenbayeva................................................................................................................605-616

Empirical Analysis of Diagramatic Representation Test Instruments Using Partial Credit Model in Realizing Learning Outcomes
Warsono, Puij Imn Nursuhud, Rio Sandhika Darma, Supahar......................................................617-632
Mathematical Instructional: A Conceptual of Redesign of Active Learning with Metacognitive Regulation Strategy
Mohamad Ariffin Abu Bakar, Norulhuda Ismail
633-648

Applying Self-Regulated Learning Intervention to Enhance Students’ Learning: A Quasi-Experimental Approach
Astri Dwi Jayaani, Suhandoko, Chi-Sai Hsu
649-664

Learning Model of Undergraduate Students: Confirmatory Factor Analysis
Pariyaporn Tungkunanan
665-678

Design of Blended Learning Based on Tri Kaya Parisudha Using Kelase Platform in Realizing Hybrid-Superitem Learning in Mathematics Lessons
I Putu Wisna Ariawan, Dewa Gede Hendra Divayana
679-698

The Effects of the Synchronous Discussion and Reflection System (SDRS) In Perception of Knowledge Building and Learning Outcomes
Cinthya Indrastyawati, Ying-Tien Wu, Sugito
699-710

Embracing Industrial Revolution 4.0: The Effect of Using Web 2.0 Tools on Primary Schools Students’ Mathematics Achievement (Fraction)
Nurulwahida Azid, Rozita Hasan, Nurul Fazilah Mohammad Nazarudin, Razlan Md-Ali
711-728

Comparison between Generative Learning and Discovery Learning in Improving Written Mathematical Communication Ability
Wardono, Rochmad, Khasanah Uswatun, Scolastika Mariani
729-744

Indirect Specialized Vocabulary Learning and Learner Autonomy
Elham Ghobain
745-760

The Flipped Pedagogy: Effects on the Grammatical Competence and Writing Skill of Basic Users of English
Mohammadreza Valizadeh, Fatemeh Soltanpour
761-776

The Creation of Teaching Aids for Disabled Students as Mathematical-Thinking-Imaginative Product
Sugiman, Hardi Suyitno, Iwan Junaedi, Dwijanto
777-788

The Effects of Reading-While-Listening and Listening-Before-Reading-While-Listening on Listening and Vocabulary
Boonyarit Tangkakarn, Chanika Gampper
789-804

Learning Decision and Spiritual Based Skills for Adult Education
Elfi Mu’awanah, Nur Hidayah, Salistyorini, Rifa Hidayah
805-826

Teacher’s Engagement in the Social and Emotional Guidance of Elementary School Students
Jessie Koh-Sing Tuay, Shahren Ahmad Zaidi Adruse, Evan Lau, Hiram Ting, Chuo Yew Ting, Mukvinder Kaur Sandhu
827-844

Determinants of Teacher Performance with Job Satisfactions Mediation
Arief Tuksman Hendrawijaya, Muhammad Irfan Hilm, Faad Hasan, Niswatul Imsiyah, Deditiani Tri Indriani
845-860

Effects of Students’ Motivation and Engagement on Students’ Satisfaction in a Lecture: Empirical Analysis
Nnamdi Obiosa
861-876
The Use of Experiential Learning as a Teaching Strategy in Life Sciences
Genevieve Mc Pherson-Geyser, Rian de Villiers, Portia Kavai.................................877-894

Developing Innovative Chemistry Laboratory Workbook Integrated with Project–based Learning and Character-based Chemistry
Bajoka Nainggolan, Wesly Hutabarat, Manihar Situmorang, Marham Sitorus...............895-908

The Power of Openness to Experience, Extraversion, L2 Self-confidence, Classroom Environment in Predicting L2 Willingness to Communicate
Irum Fatima, Shaik Abdul Malik Mohamed Ismail, Zahid Hussain Pathan, Ubedullah Memon...........................909-924