

# **International Conference on Educational Innovation and Multimedia Technology (EIMT 2022)**

Held online

Atlantis Highlights in Social Sciences, Education and  
Humanities Volume 3

Hangzhou, China  
25 - 27 March 2022

## **Editors:**

**Chew Fong Peng  
Lixin Sun**

**Yongjun Feng  
Siti Hajar Halili**

ISBN: 978-1-7138-7076-0

**Printed from e-media with permission by:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571



**Some format issues inherent in the e-media version may also appear in this print version.**

Print copyright© (2023) by Atlantis Press (part of Springer Nature)  
All rights reserved.  
Copyright for individual electronic papers remains with the authors.

For permission requests, please contact the publisher:

Atlantis Press  
Van Godewijkstraat 30  
3311GX Dordrecht  
The Netherlands

[contact@atlantis-press.com](mailto:contact@atlantis-press.com)

Printed with permission by Curran Associates, Inc. (2023)

**Additional copies of this publication are available from:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: 845-758-0400  
Fax: 845-758-2633  
Email: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

## TABLE OF CONTENTS

Research on Ideological and Political Education in Principles of Computer Composition.....	1
<i>Zhihao Cao, Sanrong Liu, Li Xu, Yong Wang</i>	
Empirical Study on the Implementation Process and Effect of Problem Chain Teaching Based on Statistical Model.....	9
<i>Jinshi Xiao</i>	
Efficacy of Usage of Social Media on Critical Thinking Disposition of Prospective Chinese Language Teachers in the Post Era of COVID-19.....	20
<i>Xianfeng Li</i>	
The Teaching Design of Online Dialogue in Practice for Large Class Students in Higher Education .....	29
<i>Shun-Ho Wang</i>	
An Innovative Investigation into English Autonomous Learning in Flipped and Traditional Classrooms Based on Multimedia Technology.....	37
<i>Yu Liu</i>	
Collaborative Integration Design of Guangxi Business Cases and Innovation and Entrepreneurship Based on Big Data.....	50
<i>Jinjin Yao</i>	
Survey Analysis of E-Cigarette and Volunteer Team Optimized Organization in High School in the Those to USA Based on Information Technology .....	59
<i>Jiapeng Lyu</i>	
Marketing System Based on Artificial Intelligence Technology Construction and Risk Analysis .....	71
<i>Jinlian Zhang</i>	
Design of Vocational Education Teaching Resources Based on Polarized 3D Stereo Virtual Reality Technology .....	78
<i>Cheng Wang</i>	
Research on the Application of Probability Statistics in Science and Engineering Courses Under the Background of Big Data .....	85
<i>Yuanyuan Mao</i>	
Principal Continuous Professional Development in the Age of Intelligence: Evidence from TALIS 2018 Survey.....	94
<i>Di Yuan</i>	
Systematic Analysis of Research Trends in STEAM/STEM Education Based on Big Data.....	102
<i>Ying Zhao</i>	
Design and Implementation of Japanese Online Learning System in Mixed Teaching Mode .....	116
<i>Fang He, Hui Sun</i>	
Strategies of English Teaching in Higher Vocational Colleges Based on Different Dimensions of Kaplan Matrix.....	125
<i>Yu Jiang</i>	
Design and Production of CAI Courseware for Football Tactics .....	135
<i>Shijun Fan, Xiaohua Chen</i>	

The Construction of Knowledge Sharing Behavior in Network Multimedia Virtual Community Learning Environment.....	144
<i>Yi Zhang, Wenxia Tao</i>	
Research on the Construction of Intelligent Tourism Cloud Experiment Teaching Platform.....	153
<i>Fei Deng</i>	
Quantitative Analysis of Classroom Attention Teaching Based on Stochastic Cascade Regression and PnP Method .....	161
<i>Bing Gong, Jing Wei</i>	
Research on Curriculum System Construction Based on “BIMC” Technology Under “1+X” Certificate System .....	170
<i>Fengnian Zhu, Xintian Nie</i>	
Research on Sustainable Development of Knowledge Ecological Sharing in Smart Library .....	178
<i>Zongying Shu</i>	
Research on the Construction of Informative OKR Performance Management System for University Teachers .....	184
<i>Hongui Xiang</i>	
Application of Artificial Intelligence Technology in Curriculum Evaluation System of Primary and Middle Schools.....	193
<i>Shuhua Bai</i>	
Peer-Review Statements .....	202
<i>Chew Fong Peng, Lixin Sun, Yongjun Feng, Siti Hajar Halili</i>	
Construction of Reform Evaluation Model of Ideological and Political Education in Colleges and Universities Based on SVM .....	205
<i>Zuguo Yin</i>	
Development and Application of Calligraphy Culture Communication Platform Based on Web Technology .....	213
<i>Wenbin Yang</i>	
The Relationship Between Parental Control and Adolescents’ Future Orientation: A Structural Equation Modeling Approach.....	222
<i>Wei Huang, Jiannong Shi</i>	
Analysis of the Connotation and Characteristics of Positive Psychology in the New Era .....	236
<i>Zhaojun Jing</i>	
Research on Practical Teaching System of Intelligent Manufacturing Engineering Major Considering the Improvement of Humanistic Quality.....	243
<i>Zhijie Yang, Zhangjie Li, Jun Xiao, Hongtao Tang, Baigang Du, Lei Wang</i>	
An Empirical Study on the Effects of Online and Offline Blended Curriculum Practice.....	250
<i>Hui He, Hong-jian Huang</i>	
The Effectiveness of Implementing Deep Learning Activities in a Blended Learning Perspective Based on Big Data Analysis .....	261
<i>Lurong Sun, Jianing Wang, Dan Gong, Nana Jiang</i>	

Blended Teaching Model of Offline-Online Based on the Mutual Promotion of Teaching and Learning .....	270
<i>Jiangu Zhang, Chenyang Liu, Yue Chen, Huanhuan Xu</i>	
Allocation Structure of Educational Funds in China: Based on Panel Analysis on Gini Coefficient of Educational Expenditure from 2005 to 2018.....	279
<i>Huayun Qiao, Linbo Si</i>	
Research on the Mixed Teaching Mode of Circuit Courses in Zhejiang Higher Vocational Colleges Based on Multimedia Technology .....	290
<i>Zhonghai Chen, Meifen Xie, Quanda Zu</i>	
A Case Study of English Reading Teaching in Higher Vocational Schools Under the Context of “Internet Plus” .....	299
<i>Aixia Wang</i>	
Exploration and Practice of Jupyter Notebook in Artificial Intelligence Online Teaching.....	307
<i>Yong Ren, Qi Feng, Zhiqiang Jiang</i>	
Research on the Design of Teaching Guidance APP Based on the Peak-End Rule .....	317
<i>Xi Zeng, Xinyu Zhang, E. Zheheng, Mingxing Luo, Xueye Zhong</i>	
Research on Blended Teaching Mode of the “Marketing” Course Based on OBE .....	327
<i>Congying Han, Yaping Jiang</i>	
Design of Smart Campus Security Management and Control Platform Based on Big Data Technology .....	334
<i>Long Peng</i>	
Ideological and Political Education of Minority Students Based on Network Information Security Model .....	344
<i>Xiaojun Fu, Qihua Li</i>	
Research on the Intelligent Teaching Guarantee System of Chinese-Foreign Cooperation in Running Schools Under the Background of Educational Informatization 2.0.....	353
<i>Bin Xu, Jihong Li, Weiwei Yu, Yingying Si, Jiong Li</i>	
Analysis on the Organic Integration of New Media Technology and Drama Art.....	362
<i>Jie Jiao</i>	
Study of Teachers’ Evaluation on Students in Colleges and Universities Based on the Subjective, Objective and Combined Weighting - Cloud Evaluation Model .....	370
<i>Yiming Zhou, Yaoyao Song, Yingxin Jiang</i>	
Research on the Application of “Flipped Classroom” in Art Design Major Under the New Media Environment: Taking the Course “Design Composition” as an Example.....	382
<i>Xiao Xu, Wei Ding, Yuwei Qin</i>	
An Empirical Study on Time Management of Vocational College Students—A Case Study of Hainan College of Economics and Business .....	388
<i>Yan Zheng, You-jun Bai, Rong-jia Guo</i>	
Talking About the Idea of Smart Campus Network Construction .....	399
<i>Wenhao Sun, Hongshu Yan</i>	

Analysis of Factors Influencing the Use of Chinese Online Education Platform: A DEMATEL-ISM Based Approach.....	407
<i>Kunhua Yu, Jin Zhu, Yanzhi Li</i>	
Design and Implementation of Teaching Resource Platform of Political Science Theory Course in Colleges and Universities Based on Web Technology.....	422
<i>Qiao Li</i>	
Design and Development of Safety Education System in Colleges and Universities Based on Virtual Reality Technology.....	432
<i>Nana Zhang</i>	
Research on the Digital Monitoring System of Online Course Teaching Quality Under the Background of Big Data: Taking Advertising Design Major of Anhui Finance and Trade Vocational College as an Example .....	441
<i>Rui Wang</i>	
Virtual Reality Based Simulation for Linear Control Experiments .....	449
<i>Linqin Cai, Shizhou Cao, Wenyuan Yi, Hao Li</i>	
Relevance Analysis of Online Course Development on Education Platform and Significance of Teaching Reform Research Based on Collaborative Filtering Algorithm .....	459
<i>Yuan-Nong Ye, Min Wang, Shuai Jin, Meng-Ya Huang</i>	
The Design and Application of Computer Multimedia Art Teaching Resource Management System.....	467
<i>Qingping He</i>	
Digital Inheritance Path of Carving Decorations in Traditional Villages in Lanzhou .....	474
<i>Zhiteng Zhang</i>	
Research on the Application of Big Data Technology in Student Education Management.....	485
<i>Jinjin He, Limin Qiao</i>	
Design and Development of Higher Vocational English Learning System Based on Visual Studio Platform.....	492
<i>Yanxia Li</i>	
Research and Implementation of Video-Based Intelligent Analysis System for Children’s Behavior .....	502
<i>Yuli Min, Qingling Meng, Hao Zhang</i>	
Study on Multiple Interactive College English Teaching Model in Digital-Based Settings.....	512
<i>Xiaoning Wang</i>	
Design of Graduation Thesis Management System Based on School Enterprise Cooperation Mode by B/S Architecture .....	521
<i>Weici Liu</i>	
Quantitative Analysis of Facial Expression Recognition in Classroom Teaching Based on FACS and KNN Classification Algorithm .....	531
<i>Bing Gong, Jing Wei</i>	
Design of Crisis Counseling Risk Assessment System Based on College Students’ Mental Health.....	540
<i>Yawen Meng, Wei Tu, Guolan Liu</i>	
Application of Intelligent System of Internet of Things in Management of Unmanned Gymnasium .....	547
<i>Dong Zhou</i>	

Research on the Strategies of Improving the Teaching Effect of Online Practice Courses in Colleges and Universities Based on Student Engagement .....	555
<i>Boyu Feng, Zhihao Zhang, Yuhui Wang, Lily Wang, Nan Zhang</i>	
Enhancing Learning Outcomes of Undergraduates with Cloud-Based Textbook in Higher Education .....	562
<i>Yongbin Zhang, Yuansheng Qi, Ronghua Liang, Xiuqing Zeng, Haifei Tian, Jiaqi Liu</i>	
Study and Application of Monte Carlo Algorithm for AI-Based Music Generation .....	573
<i>Jun Min, Lei Wang</i>	
Design and Development of College Tourism English Training System Based on Speech Recognition Technology .....	584
<i>Wenyu Xu</i>	
Methods for Assessing the Effectiveness of the Internet of Things (IoT) Applications for Physical Education.....	594
<i>Yaoliang Miao, Hang Wei, Peiping Gan, Tao Jiang</i>	
Research on Virtual Immersive Teaching Model Based on “Pseudo-environment”.....	601
<i>Chunhua Zhao, Qiushi Zhao</i>	
The Impact of MALL on College English Blended Learning .....	609
<i>Si Li</i>	
Development of Higher Vocational Ideological and Political Education Resource Platform Based on Mobile Platform .....	619
<i>Wen Tang, Yanfa Chen</i>	
Research on Evaluation of Classroom Teaching Quality in Vocational Colleges Based on Big Data Analysis.....	627
<i>Ting Deng, Guanghua Li, Jian Ye</i>	
A Study on the Blended Learning Based on Multimedia Platforms .....	636
<i>Leiping Wu, Hanbin Zhang</i>	
Research on Ideological and Political Practice Teaching of Script Language Course in Local Applied Universities.....	645
<i>Xiaojiao Zhang, Tao Jin, Ren Na, Li Ma</i>	
Research on the Development and Influencing Factors of Sports Network Education and Training.....	656
<i>Shijun Fan, Ruilin Xu</i>	
Exploration of Photography Aesthetics in the Age of Digital Media Art .....	666
<i>Yanhua Zhang, Guixia Zhang, Qinghong Zeng</i>	
Innovation Strategy of Animation Curriculum Systems Based on Artificial Intelligence .....	675
<i>Qing-qing Wang</i>	
Analysis on the Influencing Factors of University Student Majoring in Information Engineering Technology “Involution” and Its Countermeasures Based on Analytic Hierarchy Process (AHP) .....	683
<i>Sinuo Xiang, Ganquan Su, Jiahao Dong, Jiaying Li</i>	
Construction of Campus Smart Party Building Platform Under the Background of Internet Plus.....	691
<i>Kebing Cui</i>	
Application and Prospect of Artificial Intelligence in Online Vocational Education.....	700
<i>Weiwei Wang, Xuandao Yao, Zhaohui Ye</i>	

A Learning Analytics Model Based on Expression Recognition and Affective Computing: Review of Techniques and Survey of Acceptance .....	710
<i>Chengliang Wang, Jian Dai, Yu Chen, Xing Zhang, Liujiu Xu</i>	
Research on Educational Innovation of Retired College Students Based on Big Data Analysis.....	720
<i>Zhongyi Tao, Zhiyou Zou, Yanli Chen, Dongmei Shi</i>	
Analysis of the Influence Factors of College Students' Game Addiction Under the Background of Big Data Technology .....	732
<i>Linming Liu, Jian Wang</i>	
Establishment and Application of Chinese Painting Mineral Pigment Color Database Based on Web Technology .....	740
<i>Xiaoming Su</i>	
Research on the Teaching of “Fundamentals of Control Engineering” Integrated with MATLAB.....	752
<i>Hongxing Li, Xiaofang Shen</i>	
Innovative Experimental Teaching and Practice of Direct Shear Test of Root-Soil Complex.....	762
<i>Guojian Feng</i>	
Exploring a Method of Enhancing Student Engagement When Teaching a Large STEM Cohort in Higher Education Context .....	771
<i>Chung Ket Thein, Devinder Kumar Yadav, Wei Jen Chew, Yufei Wang</i>	
Statistical Analysis Based on Students' Evaluation of Teaching Data in an Application-Oriented University .....	780
<i>Jing Zuo, Xing Wu, Geng-e Zhang, Tongyao Huang</i>	
Utilizing Praat to Identify Neutral Tone Features of Mandarin Learners with L1 as Longshan Dialect .....	789
<i>Yao Peng, Xinrui Li</i>	
Deep Application and Development Prospect of Virtual Classroom System .....	799
<i>Ying Sun</i>	
Design and Application of Mixed Teaching System of Pediatric Nursing Based on Web Technology .....	812
<i>Jing Zhang, Tingting Yang, Pei Zhang, Ruowei Wang</i>	
A Study on the Efficiency and Influencing Factors of Scientific Research in Regional Universities Under “Double First-Class” Project—Based on Super-Efficiency DEA-Tobit Model.....	822
<i>Lifeng Wang, Jin Zhang, Shukun Chen</i>	

**Author Index**