



Contents

Precision and Teaching

- 04 High-quality Developments in Technology-enabled Education: The Frontiers of Artificial Intelligence, Blockchain, and Robots

YUAN Lei, ZHANG Shuxin, LEI Min, QIN Ying & ZHANG Wenchao

- 17 Cognitive Decryption and Skill Unlocking of Educational Data Interpretation

LIN Shubing & ZHANG Xuebo

- 27 Towards a More Effective Feedback Model: A Perspective of Visible Learning

WU Shaoyang & PENG Zhengmei

- 41 The Lesions and Governance of Online Education in Primary and Secondary Schools

LI Mang & GE Nan

- 50 Survey on ICT Application Development in Basic Education and Strategic Adjustment from an International Comparison Perspective

DONG Yuqi, BI Jingtang, QIAN Songling, BIAN Jiasheng & QIAO Peixin

- 59 Research on Intelligent Education Literacy Framework for K – 12 Teachers

HU Xiaoyong & XU Huanyun

- 71 Academic Performance, STEM Interest and 21st Century Skills: Based on the Mediation Effect Model Analysis

PU Xiaosong & KANG Jianchao

- 85 Research Progress and Enlightenment on Dynamic Grouping in Cooperative Learning: A Literature Review

ZHONG Baichang & HUANG Shuiyan

- 98 Current Status and Influencing Factors of Chinese Pre-service Teachers' Computational Thinking: An Empirical Research on Universities in Tianjin, Hebei, and Shandong

FANG Min, SUN Ying, CHEN Wei & LV Shenmin

- 111 Research on the "Enabling" Effect of Visual Interaction in Artificial Intelligence Education Application

QUAN Guolong, GU Xiaoqing & WANG Jing

Beginning and Ending

• 2 •

目 录

开放视点

二 文 青 / 精准与教学

本刊专稿

04 袁 磊 张淑鑫等 / 技术赋能教育高质量发展:人工智能、区块链和机器人应用前沿

17 林书兵 张学波 / 教育数据解读的认知解密与技能解锁

27 伍绍杨 彭正梅 / 迈向更有效的反馈:哈蒂“可见的学习”的模式

理论探究

41 李 芒 葛 楠 / 中小学在线教育病灶与治理

50 董玉琦 毕景刚等 / 基础教育信息化发展的问题审视与战略调整

59 胡小勇 徐欢云 / 面向 K-12 教师的智能教育素养框架构建

研究报告

71 浦小松 康建朝 / 学习成绩、STEM 兴趣与 21 世纪技能

——基于中介效应模型分析

85 钟柏昌 黄水艳 / 合作学习动态分组的研究进展与思考

——基于国际文献的系统综述

教师教育

98 房 敏 孙 颖等 / 师范生计算思维发展现状与影响因素

——基于津冀鲁三地高校的调查分析

技术支撑

111 权国龙 顾小清等 / 人工智能教育应用的视觉交互“赋能”效应研究

编余札记

三 禾 风 / 开头与结尾