

中国联合国教科文组织指导刊物
CSSCI来源期刊
全国中文核心期刊
RCCSE 中国核心学术期刊 (A)
AMI综合评价A刊
中国科技核心期刊
刊名题字：苏步青

ISSN 1004-9894
CN 12-1194/G4

数学教育学报

SHUXUE JIAOYU XUEBAO

JOURNAL OF MATHEMATICS EDUCATION

JOURNAL OF MATHEMATICS EDUCATION

天津师范大学

主办

2022.3

第31卷 第3期 Vol.31 No.3

ISSN 1004-9894



数学教育学报

第三十一卷第三期

二〇二二年六月

目次

数学教材研究

- 由描述性到形式化：中学函数定义的发展及其价值 刘杰，韩继伟，高 旻 (1)
- 高中数学教科书中数学建模问题情境的比较研究 李保臻，陈国益 (6)
- 国际视野下数学教材研究的行动与展望——基于 ICME-14 数学教材研究的分析 王思凯，李沐慧，徐斌艳 (15)

高中数学教育

- 高考概率与统计试题的统计与分析——以 2021 年全国课标卷为例 李亚琼，潘禹辰，徐文彬，等 (20)
- 基于数学核心素养的新旧高考比较分析——以 2021 年新高考 I 卷与 2020 年全国 I 卷为例 李子瞻，胡典顺 (26)
- 面向法国 2021 年会考的高中数学课程标准特点剖析 张玉环，吴佳桢 (32)
- 数学学科核心素养高考测评与课程标准一致性研究——以 2019—2021 年高考数学 I 试卷为例
..... 武丽莎，朱立明，王久成 (39)

初中数学教育

- 初中统计内容课题式教学设计研究 沈 威，曹广福 (45)

小学数学教育

- 操作延展性练习教学——在两种推理交互作用中发展数学新知识 顾丽英，邓德巍 (50)

儿童数学教育

- 感知—运动空间训练对儿童早期数学能力的影响 李梦霞，郑杨玲 (56)

数学教师教育

- U-S 数学教师合作共同体分析：活动理论视角 刘丽哲，慕春霞，屈若男 (64)

研究与借鉴

- 国外近年来数学学习情感复杂性研究的新趋势 姚一玲，蔡金法，孔企平 (70)
- 聚焦小团体或个体的国外数学抽象实证研究：理论框架和实践路径 刘其右，郭玉峰 (77)

学术史与争鸣

- 民国时期非欧几何学在中国的传播及影响 (1919—1949) 范晓锐，张 林 (84)

会议综述

- 改变 STEM 教育故事 面向 STEM 教育未来——第六届国际 STEM 教育大会 (2021) 述评 李 刚 (88)
- 第四次工业革命中的数学教育：面向未来的思维能力——第四十四届国际数学教育心理学大会会议综述
..... 朱宇璇，左浩德 (94)

JOURNAL OF MATHEMATICS EDUCATION

Vol.31 No.3 Jun. 2022

CONTENTS

From Descriptive to Formal: The Development of Middle Schools' Function Definition and Its Value	LIU Jie, HAN Ji-wei, GAO Hang (1)
A Comparative Study of Mathematical Modeling Problem Situations in High School Mathematics Textbooks	LI Bao-zhen, CHEN Guo-yi (6)
Actions and Prospects of Mathematics Textbook Research from an International Perspective——Based on the Analysis of Mathematics Textbook Research in ICME-14.....	WANG Si-kai, LI Mu-hui, XU Bin-yan (15)
Statistics and Analysis of Probability and Statistics Test Questions for College Entrance Examination——Taking the 2021 National Curriculum Standard Paper as a Case.....	LI Ya-qiong, PAN Yu-chen, XU Wen-bin, et al (20)
A Comparative Analysis of New and Old College Entrance Examination Based on Mathematical Key Competencies——Taking the 2021 New College Entrance Examination Volume I and the 2020 National Volume I as Examples	LI Zi-zhan, HU Dian-shun (26)
Analysis of the Characteristics of High School Mathematics Curriculum Standards for Graduation Examination of France in 2021	ZHANG Yu-huan, WU Jia-hui (32)
A Study on the Analytical of Consistency between Mathematical Key Competencies in College Entrance Examination and Curriculum Standards——Taking Volume I of the College Entrance Examination of 2019—2020 Mathematics as an Example	WU Li-sha, ZHU Li-ming, WANG Jiu-cheng (39)
Research on the Project-Based Teaching Design of Statistical Content in Junior High School	SHEN Wei, CAO Guang-fu (45)
To Manipulate the Exercise Teaching of Ductility and Malleability: Developing New Mathematical Knowledge in the Interaction of Two Kinds of Reasoning.....	GU Li-ying, DENG De-wei (50)
Effects of Sensori-Motor Spatial Trainings on Children's Early Mathematical Ability	LI Meng-xia, ZHENG Yang-ling (56)
Analysis on the Community of U-S Mathematics Teacher Collaboration: The Perspective of Activity Theory.....	LIU Li-zhe, QI Chun-xia, QU Ruo-nan (64)
New Research Direction of the Complexities of Mathematics Affect in Abroad.....	YAO Yi-ling, CAI Jin-fa, KONG Qi-ping (70)
Empirical Research on Small Groups or Individuals in Foreign Mathematical Abstraction: Theoretical Framework and Practical Approach	LIU Qi-you, GUO Yu-feng (77)
The Spread of Non-Euclidean Geometry in China During the Period of the Republic of China (1919—1949)	FAN Xiao-ru, ZHANG Lin (84)
Changing the Story, Facing the Future——Review of the 6th STEM International Education Conference.....	LI Gang (88)
Mathematics Education in the 4th Industrial Revolution: Future-Oriented Thinking Skills——A Review of the 44th Conference of the International Group for the Psychology of Mathematics Education	ZHU Yu-xuan, ZUO Hao-de (94)