促进学生化学学科能力发展的教学改进研究

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学科素养和能力培养是国内外基础教育的共同需求。我们在前期国家社科基金重点课题学科能力的内涵构成和表现测评研究的基础上,进一步开展了促进学生学科能力发展的教学改进研究。构建了促进学生学科能力发展的教学改进理论体系,其核心在于基于认识方式的发展实现从知识到能力和素养的转化。本文结合具体实例介绍了教学改进指导模式:聚焦学科核心大概念,选取具有学科核心素养和能力发展价值的教学主题,系统分析该主题的学生素养发展和能力提升的功能价值及教学要求,在准确诊断学生的已知点、障碍点和发展点的基础之上,明确教学改进点和具体改进目标,进行基于"高端备课"模式的全程具体教学指导。

关键词: 化学学科能力; 教学改进; 高端备课

参考文献

- [1] IEA. TIMSS 2011 Assessment Frameworks[EB/OL]. http://timss.bc.edu/timss2011/
- [2] OECD. PISA 2009 Assessment Framework[EB/OL]. www.oecd.org/pisa/pisaproducts/44455820.pdf
- [3] National Assessment Governing Board ,U.S. Department of Education. Science Framework for the 2009 National Assessment of Educational Progress[EB/OL]. www.nagb.org/publications/frameworks/science-09.pdf [4] 王磊,支瑶,胡久华,促进化学课堂教学质量提升和教师专业发展的"高端备课"模式及其实践[J]. 基础教育课程,2014(13):6-9

Teaching Improvement to Promote Students' Disciplinary Competences in Chemistry

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To cultivate student's disciplinary competence is the common demand of basic education at home and abroad. Based on the research of essential connotation of competences andthe results of competence performance assessment, which brought up from the team in Beijing Normal University guided by professor Lei Wang, this study focuses on how to promote students' disciplinary competence in chemistry by teaching improvement. We construct the theoretical system of teaching improvement for students' disciplinary competences development. The core of which is to realize the transformation from knowledge to ability and competence based on the development of cognitive perspectives and cognitive pattern. In this paper, we introduced the guided model of teaching improvement with the concrete examples: selecting teaching themes which carry big ideas and competences; analyzing systematically what is the value and learning demand of teaching themes; diagnosing what students know, what is barrier point and what is to be developed; identifying which teaching points is to be refined and specific targets; carrying out accurate teaching guide on whole course based on HLDBLS(High Level Design-Based Lesson Study) pattern.