

學生對教師之學科教學知覺問卷之發展
Development of Students Perceptions of Teacher's Pedagogical Content
Knowledge Questionnaire

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中文摘要

自 Shulman (1986, 1987) 倡導學科教學知識的概念後，學者們紛紛將此概念運用在師資培育的研究中。Shulman 認為學科教學知識的重點之一，在於教師所傳達的學科知識必須是學生所能理解的，然而過去的研究卻鮮少從學生對課室教學之知覺來探討教師學科教學的表現。有鑑於此，本研究的目的有三：利用質與量的研究方法，發展出一份適合國中生所使用的「學生對教師之學科教學知覺問卷」；藉由問卷編製與效化過程探究學科教學知識內涵；提供科學教師利用此份問卷做為自我反省與改進科學教學的方向。本份問卷發展的方式為，收集學科教學知識相關研究以建立本份問卷的構念類別與題目；再經由專家、有經驗的老師、與學生分別做專家與表面效度的檢核；選擇中部縣市 7 所國中 15 個班級共 634 名學生為對象進行前測；前測資料經分析與修改後，再以中部縣市 10 所國中 24 個班級共 935 名學生進行正式施測；問卷回收後分別進行信效度檢驗。資料分析結果顯示整份問卷的 α 值為 0.95，各分量表。值分佈於 0.70 至 0.90 之間，各班級在各類分量表的得分達顯著差異，因素分析結果能確認原先所歸納之問卷構念。如何利用本份問卷進行教學改進亦將於文中提及。

關鍵字：學科教學知識；問卷發展；科學教學；學生的知覺

Abstract

Ever since Shulman introduced the concept of pedagogical content knowledge (PCK), in 1986, many scholars have been interested in studying the effects and implications of a teacher's PCK on student learning. But few research have investigated the appropriateness of PCK from students' perspective. The purpose of this study was to develop a students' perceptions of teacher's pedagogical content knowledge (SPOTPCK) questionnaire to investigate the nature of PCK. Theoretical claims and empirical research in PCK were used to design questions and sub-scales for the SPOTPCK. Expert science teachers and students and face validity of the instrument were established. An initial version of the instrument was administered to 634 students and five subscales were derived based on factor analysis of the data. The final version of SPOTPCK was administered to 935 students in 10 schools in central Taiwan. Analysis of these data showed students were able to identify aspects of teachers' PCK. The total Cronbach of the SPOTPCK was 0.95, arranged from 0.30 to 0.90 among the five subscales. Implications and applications of the SPOTPCK are discussed.

Key words : Pedagogical content knowledge; Questionnaire development; Science teaching; Students' perceptions