

Developing Personal Knowledge Management Training

Curriculum Guide

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Abstract

This paper presents the findings of a project that aims to develop a Personal Knowledge Management (PKM) curriculum guide and resources to teacher educators for nurturing pre-service teachers' PKM competencies and instructional design skills. PKM competencies are conceptualized as knowledge retrieving, organizing, analyzing and collaborative skills for effective learning (Cheng, 2011). Supporting the sustainable development of teachers as professionals in the knowledge society is a critical issue in teacher education. Developing a teacher education curriculum that could nurture pre-service teacher sustainable professional competencies becomes a significant research agenda and a practical issue to be addressed in teacher education.

The project intends to adopt Dorsey's (2000) PKM model to develop a curriculum guide and related resources that could be implemented in Bachelor programme of The Hong Kong Institute of Education for developing pre-service teachers' PKM competencies. The elements of PKM tools application, e-learning activities and collaborative action research were developed and injected to the experiment courses as an intervention to confirm the pre-service teachers' PKM competency framework. The courses provide pre-service teachers with different degree of opportunities to carry out instructional design, lesson implementation and reflection through e-learning and collaborative action research activities.

Solomon four group quasi-experimental research design were applied to collect data from 6 courses of the Institute. 3 courses were treated as experimental groups and another 3 courses were treated as control groups. There were around 40 students in each course. Students are equally and randomly divided into 2 groups. One group was conducted with both pretest and posttest and the other group was conducted with posttest only. Cheng's (2011) PKM inventory, which is constructed with content validity, constructed validity and reliability, was adopted to measure student PKM competencies. All items were measured using a 6-point Likert-type scale ranging from

1 (strongly disagree) to 5 (strongly agree). Lesson observation and qualitative interviews were conducted to evaluate the development of the pre-service teacher. The effectiveness of the e-learning activities, the use of PKM tools and the collaborative action research approach were evaluated. Results showed that integrating learning activities in the Learning Study course had impacts on the retrieving, organizing, analyzing skills for instructional design and student assessment.

A set of learning activities for planning the PKM curriculum could be articulated from the result of this study. For example, access databases and websites for information retrieval; operate electronic tools for information integration to design lesson plans; use spreadsheet and statistical software for data and information analysis to assess student learning problems; use collaborative PKM tools to support both synchronous and asynchronous communication for the purpose of collective learning; and construct knowledge that is based on an appropriate understanding of the nature of data, sound inference, and an understanding of potentially meaningful relationships within a data set.

To support the sustainable development of teachers as professionals in the knowledge society, teacher education institutions should integrate PKM tools, e-learning activities and collaborative action research into the pre-service teacher education curriculum. This could be of significant assistance to pre-service teachers in retrieving, organizing, analyzing and collaborating around information across all disciplines. If teacher education institutions really want to fully engage pre-service teachers with a professional and lifelong learning process, they should develop pre-service teachers' PKM competency by making PKM tools available.

Reference

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