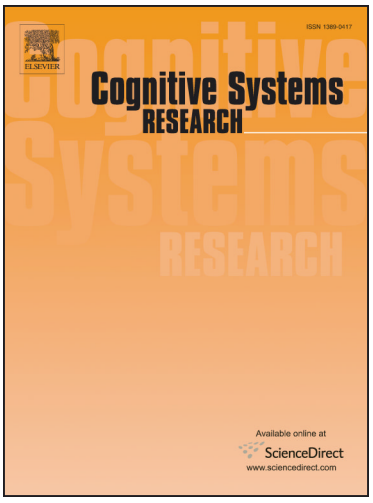

Fuzzy Cluster Correlation Mapping for Online Evaluation of Teaching Efficacy Towards IoT Study

Liu Yang

PII: S1389-0417(18)30286-9
DOI: https://doi.org/10.1016/j.cogsys.2018.07.025
Reference: COGSYS 676

To appear in: *Cognitive Systems Research*

Received Date: 19 June 2018
Revised Date: 17 July 2018
Accepted Date: 18 July 2018

Please cite this article as: Yang, L., Fuzzy Cluster Correlation Mapping for Online Evaluation of Teaching Efficacy Towards IoT Study, *Cognitive Systems Research* (2018), doi: https://doi.org/10.1016/j.cogsys.2018.07.025

Fuzzy Cluster Correlation Mapping for Online Evaluation of Teaching Efficacy Towards IoT Study

Liu Yang[1].
1. Department of Foreign Language, Jiujiang University, Jiujiang City, China

Abstract. This research investigates the TPACK structure and its technology integration self-efficacy situation of 150 foreign language teachers, adopts cluster classification mapping fuzzy correlation clustering structure equation model to conduct route analysis on the relationship between them. The research shows that the foreign language teachers have insufficient preparation on TPACK and have low level of technology knowledge; their technology integration self-efficacy and various dimension levels are moderate, but they have insufficient confidence in integrating teaching through technology to enhance learning quality; The TPACK presents positive relation with the technology integration self-efficacy, and TPACK had positive prediction and significant influence on technology integration self-efficacy, namely the knowledge structure of teachers (TPACK) is the motivation to their confidence in technology and teaching integration.

Keywords: Foreign English, TPACK structure, Teaching efficacy, Neural network

1 Introduction

The constant integration of information technology and foreign language teaching has made the occupational development of foreign language teachers face new chance and challenge since entering the 21st century. Obviously, information technology is gradually deconstructing and reconstructing the knowledge structure of foreign language teachers. Wherein, technology knowledge has become the important content of occupational development of teachers. Mishra and Kohler (2006) put forward Technological Pedagogical Content Knowledge (TAPCK) to provide new perspective for foreign teaches to integrate technology and teaching, which provides theoretical basis for establishing the dynamic knowledge framework in occupational development. So to speak, the TPACK structure of foreign language teachers is the precondition and basic guarantee for integration of technology and foreign language teaching. In this integration process, the psychological orientation of teachers, such as self-efficacy, directly affects the integration quality and effect [1-5]. The technology integration self-efficacy can be said to be