

A Scale of Public Preschool Educators' Teaching Beliefs

Chen, Chien Chen 1*, Sun, Liang Chen 2**, and Sun, Fu Chih 3***

1 National Tsing Hua University

2 National Tsing Hua University

3 Chaoyang University of Technology

Abstract

The purpose of this study was to develop a scale of public preschool educators' teaching beliefs. It had four dimensions and consisted of teaching materials, teaching implementation, teacher's role, and teacher-student interaction. It recruited public preschool educators who work in the north of Taiwan areas by stratified random sampling, issued total of 548 parts, received 405 valid questionnaires, and totalized the effective rate of 73.9% questionnaires. The data was analyzed by CFA and EFA.

Key words: teaching belief, CFA, EFA

Introduction

In recent years our society, government and parents concerned more and more about preschool education and quality. The educational authorities had been promoted a series of preschool education reforms. It changed preschool educators' teaching tasks and beliefs a lot (Hsu, Meng-Chi, 2009). Teaching beliefs could affect preschool educators on how they thought of children's learning and development, the nature of teaching, teaching strategies and student's performance (Huang, Ching-Hui, 2017). Therefore, to understand public preschool educators' teaching beliefs is necessary and important.

Literature Review

Belief is the intention of action, and can examine effectively people's thoughts. (Hsiao Chia-Chun, 2020). It consisted of three components: cognition, affection and behavior, and not only affected people's working performance and attitudes, but also explain people's behaviors and life. Teachers' teaching beliefs and values could influence their teaching practice, (Xie & Cai, 2018) and explain their teaching methods that they adopted, activities, subjects, decisions or evaluations that they chose and etc. (Utami, 2016; Berger, Girardet, Vaudroz, & Crahay, 2018). Educators' teaching beliefs were not changed easily and were influenced by educators' past learning courses, professional developments, teaching experience and practice. Good-quality preschool was consisted of and operated by educators who had teaching beliefs. After reviewing recent studies about preschool educators' teaching beliefs, their contents of teaching beliefs were similar to each other despite of in different research topics, fields or names. (Chen, Yong-Sin, 2016; Huang, Ching-Hui, 2017; Tsai, Yan-Ching, 2016; Pan Gui-Ying, 2016; Chien, Chia-Hui, 2017) Most of them mentioned mainly four dimensions: teaching materials, teaching implementation, teachers' roles, and teacher-student interaction. I used them to be the content of public preschool educators' teaching beliefs of this study.

Method

The scale was developed and based on literature review and consisted of four dimensions, 16 questionnaire items. The questionnaire items used six-point scale ranging from 1 to 6 to conduct the survey.

The draft scale was reviewed by 13 experts that included 5 professors and 8 five-years-experience preschool educators to execute content validity. After revising the scale, the main research object in this study was the public preschool educators in north of Taiwan areas. Based on the information of preschools in 108th academic year from early childcare education website, preschools in different counties were stratified systematic sampling with a quarter, and selected total 166 preschools. The questionnaire survey issued 548 parts, and then collected back 405 parts. The effective rate was 73.9%.

Findings

The result of the item analysis was that critical ratio was in the range of 8.30-11.40 and significant. All questionnaire items were kept. To execute EFA, the data was analyzed with the canonical factor analysis and done orthogonal axis with the varimax method. The result of KMO was 0.924 and significant. All questionnaire items had significant factor loadings, which were in the range of 0.441-0.881 and belonged to their own dimensions. However, questionnaire items C39 and C42 had factor loadings at 0.441 and 0.466, which were not up to the 0.50 standard so that were deleted. After that, explained variance of four dimensions were 16.57%, 15.55%, 12.70% and 18.45%. The scale of total explained variance were 63.27%.

Furthermore, to execute CFA, the result was $\chi^2=151.346$; $df=73$; $\chi^2/df=2.073$; $GFI=.895$; $AGFI=.849$; $RMR=.019$; $RMSEA=.078$; $NFI=.909$; $CFI=.950$; $IFI=.950$; $TLI=.938$; $RFI=.886$; $PNFI=.729$; $PGFI=.622$; $PCFI=.762$. The model fit showed good. See the Fig.1. To assess the construct validity of the scale, error variance values were in the range of 0.69-0.176 and without negative numbers.

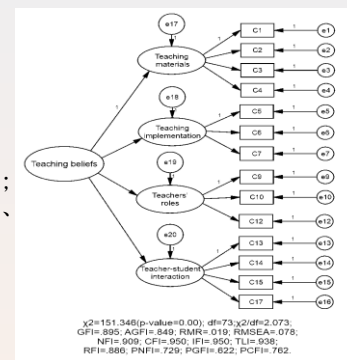


Fig. 1 The CFA model of Preschool Educators' Teaching Beliefs

The standardized regression coefficient values were in the range of 0.704-0.896 and not close to or over 1. The standard error values were in the range of 0.083-0.116. The CR values in each dimension were 0.863, 0.887, 0.788 and 0.892 and all were above to 6. The AVE values in each dimension were 0.612, 0.725, 0.553 and 0.674 and all were above to 0.5. The square roots values of AVE in each dimension were 0.782, 0.851, 0.744 and 0.824 and all exceeded the correlation coefficients in each dimension.

Conclusion

After analyzing, the development of public preschool educators' teaching beliefs scale showed a good internal consistency and construct validity. According to the result of this study can offer preschool educator to use as reference in the future.