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| <b>Research Title</b>       | Development of Work-Based Learning skill bank to enhance learning and innovation skills on early childhood education for caregivers under local administrative organization, Ministry of Interior |
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The skill development of caregivers needs to be carried out continuously and appropriately, particularly in the areas of learning and innovative skills which are significant for enhancing desirable traits among the staff working with children in the 21st century. The study has the objectives to 1) studying the conditions and direction of development, 2) developing a set of skills bank, 3) exploring its outcomes. The sample group in this research consists of caregivers, and experts in early childhood education and educational technology. The research tools are skills bank to be used on mobile application, evaluation form on learning and innovative skills, satisfaction survey on the work-based learning skills bank, and assessment form on the fitness of work-based learning skills bank. The data analysis relies on content analysis, confirmatory factor analysis (CFA), chi-squared test, descriptive statistics, Efficiency of Process and inter-rater reliability (IRR). The outcomes of study have revealed the factors of ECE skill bank, and CFA analysis concerning on the alignment of Behavioural Factors of work-based learning Model. The alignment has been established on the assumptions and 5 key factors i.e. (1) technology, (2) knowledge, (3) learning activities, (4) outcome analysis and evaluation, and (5) work. It is found that each factor has had its key indicator and each one has resonated with the empirical evidence according to the Goodness of Fit Index (GFI). The GFI has showed the chi-squared value of 0.04 and relative chi-squared value of 0.04. The standardized factor loading of each factor and factor indicator have ranged between 0.756-0.936 and 0.436-0.936 respectively.

The results reveal that the work-based learning skills bank created focuses on the learning style which integrates work-based learning at childcare development centre and new learning experience on online platform which contains digital contents

and application, in order to form skills bank in micro-content format on mobile application. The opinions have been shared and collaborative work has been implemented in the forms of face-to-face and online. There are three important learning approaches involving thinking, doing, and using. Efficiency of work-based learning skills bank is  $E_1 / E_2 = 80.03/88.36$ . The experts assess the fitness of work-based skills bank through IRR. It is found that the index of item objective congruence (IOC) of each step and the assessor is at 1.00 which is considered the most appropriate based on the assessment criterion. The overall average satisfaction of caregivers related to teaching and learning established on the work-based learning skills bank to enhance the learning and innovative skills in ECE is high ( $M=4.42$ ,  $S.D.= 0.72$ ). The highest satisfaction is at accuracy which reveals the maximum average ( $M=4.44$ ,  $S.D. = 0.74$ ). The caregivers who have learned by using this ECE skill bank through Care Skill Application on their mobiles have achieved higher average scores of learning and innovative skills compared with their previous scores before the use of this ECE skill bank; this has been showed through the statistical significance of 0.05. All in all, the study informs that the work-based learning skills bank is the appropriate learning model for the caregiver's development of the 21st century.

**Keyword:** Work-Based Learning skill bank, caregiver, learning and innovation skill