

Title	MOOCsと教育的ゲーミフィケーションを掛け合わせた教育の有用性と適合性およびEラーニングの結果とその保持に影響する因子について
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## **ABSTRACT**

This dissertation focus on effective e-learning model that is suitable to solve rural education problem. Education is the important fundamental in any society but some students do not have a chance to obtain the standard education. E-learning was established to fill this gap. It can provide long distance learning with good curriculum to a wider group of population. However, each model of e-learning still has its specific problem and effectiveness of some methods are still in debatable, when applied these models to rural education.

MOOCs hybrid learning and educational gamification have become core model to support rural learning. E-learning models have been originally designed for developed countries education. However, there are some obstacles to make use of them in developing countries. In case of Thai education, there is an inadequate number of rural teachers, and these teachers must teach vary subjects in which they have low experience. Moreover, most rural students are low-performing student, who study in Rural and Low-Income Schools (RLISs). Developing MOOCs hybrid learning and educational gamification model to reduce number of low-performing students are an effective way to enhance an education system.

In this dissertation, we propose a MOOC hybrid learning and educational gamification model that is suitable and effective for rural education. We simultaneously identify factors and features that affect learning outcome and knowledge retention. In addition, quantitative research approach using paired t-test to determine the difference in scores between the pre and post-tests. Kruskal-Wallis (H Test) was operated to investigate and find the relationships between scores' improvements and factors. The data was collected from 314 students for MOOCs hybrid teaching model and 251 students for educational gamification model. Students were in grades 7-10 (13-16 years old) and randomly selected from a public school in rural Thailand.

The results show that MOOCs hybrid learning and gamification model are effective for urban and rural schools and can solve developing countries' education problems. We also found that group activities (e.g., peer tutoring and forum discussions), and academic achievement improve students' learning ability.

**Keywords:** Massive open online courses (MOOCs), e-learning, active learning, flipped learning, educational gamification, e-learning factor