

## *The Study of Students' Willingness to Use Mobile Learning in English Classes*

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### **Abstract**

Recently, New Taipei City of the Taiwanese government has made great efforts to promote mobile learning. For example, the related programs, “New Taipei City Mobile Learning Experimental Schools of Ministry of Education” in the 101 academic year and “New Taipei City Cloud educational studio” in the 102 academic year. Furthermore, in the 103 academic year, they were integrating tablet PCs to learning in different subjects. This study tried to know students’ “Usage Behavior” and “Usage Intention” of an English curriculum in a school in the above context. Based on the “Unified Theory of Acceptance and Use of Technology” [UTAUT], researchers designed questionnaires to discuss influence factors. The total sample numbers are 324 6th grade students, sample numbers are 324 and effective samples are 324, and the effective rate is 100%. Results show: (1) the variables of “Experience” and “Voluntary Background” of "Effort Expectancy" and "Social Influence" are significant deviations. (2) "Performance Expectancy", "Effort Expectancy", "Social Influence", “Facilitating Conditions ”, and “Usage Intention” present a significant positive correlation. (3) "Performance Expectancy", "Effort Expectancy", and "Social Influence" have predictive ability to “Usage Intention”. (4) “Usage Intention” and "Facilitating Conditions" have predictive ability to "Usage Behavior".

Keywords: mobile learning, students' willingness, English class

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## **Introduction**

This study is planned to with the United Theory of Acceptance and Use of Technology (UTAUT) proposed by Venkatesh, Morris, Davis, & Davis (2003) as a framework, explore the impact of “Performance Expectancy”, “Effort Expectancy”, “Social Influence”, “Facilitating Conditions” and “Usage Intention” on students participating in the mobile learning curriculum.

## **Theoretical Framework**

In 2003, Venkatesh et al. (2003) proposed the United Theory of Acceptance and Use of Technology (UTAUT), developed the intent and four core elements used as well as four critical influencing factors. Compared to other models with only 17% to 42% of explanatory power, the explanatory power of the model is up to above 70%. Therefore, this study is intended to explore the impact of mobile learning on elementary school students with this model.

## **Method**

With the United Theory of Acceptance and Use of Technology (UTAUT) proposed by Venkatesh et al. (2003) as the main framework, the first draft of this scale is divided into six levels, including four independent variables- “Performance Expectancy”, “Effort Expectancy”, “Social Influence” and “Facilitating Conditions” as well as two dependent variables-“Usage Intention” and “Usage Behavior”. In the development process, 7 scholars and professors were invited in amendment, and 56 students were conducted the pilot study. The statistical methods used include descriptive analysis, independent sample t-test, one-way ANOVA, Pearson product moment correlation and multiple regression analysis.

## **Results**

### **1. Analysis on Research Samples**

The analysis of samples show that the majority of research samples mainly include “boys”, “who want to use mobile learning to blend into English curriculum”, “who have information equipment for learning”, “who never use a tablet computer or smart phone to learn”, “who have network at home for Internet access”, and “who surf the Internet for a total of 1-3 hours every week”.

### **2. Correlation Analysis of UTAUT Model and Elementary Students’ Use of Action Learning to Blend into English Curriculum**

According to relevant analysis of Pearson correlation, the “Performance Expectancy”, “Effort Expectancy”, “Social Influence”, “Facilitating Conditions” and “Usage Intention” show a significant positive correlation in the perspective relationship, and there is high correlation between “Performance Expectancy” and “Effort Expectancy”, as well as between “Effort Expectancy” and “Usage Intention”.

### **3. Analysis on the Difference of Impact of Different Background Variables on UTAUT Model and Elementary Students' Use of Action Learning to Blend into English Curriculum**

According to the results of independent sample t-test and one-way ANOVA, students with different intention have significant differences in "Performance Expectancy" and "Social Influence".

### **4. Prediction Analysis of UTAUT Model and Elementary Students' Use of Action Learning to Blend into English Curriculum**

The multiple regression method is used to analyze the prediction of potential variables and each perspective, which shows:

- (1) Three variables with predicative functions for "Usage Intention" reach the significant level ( $P < 0.001$ ), which are "Performance Expectancy", "Effort Expectancy" and "Social Influence" in order. These variables together can explain 59.1% of the total variation of overall intention level. Therefore, the "Performance Expectancy", "Effort Expectancy" and "Social Influence" can effectively predict the "Usage Intention".
- (2) A total of two variables with predicative functions for "Usage Behavior" reach the significant level ( $P < 0.001$ ), which are "Usage Intention" and "Facilitating Conditions" in order. These variables together can explain 65.1% of the total variation of overall behavior level, and the "Usage Intention" can explain 61.5% of the total variation of overall behavior level, which is the most important predictive variable. Therefore, the "Usage Intention" and "Facilitating Conditions" can effectively predict the "Usage Behavior".

### **Conclusions and Suggestions**

It is found from the study that:

1. Two variables, "Experience" and "Willingness" have significant difference in "Effort Expectancy", "Performance Expectancy" and "Social Influence" respectively;
2. The effort expectancy, "Performance Expectancy", "Social Influence", "Facilitating Conditions" and "Usage Intention" all show significant positive correlation;
3. The "Effort Expectancy", "Performance Expectancy" and "Social Influence" have the predictive power for "Usage Intention";
4. The "Usage Intention", "Facilitating Conditions" have the predictive power for "Usage Behavior".

Therefore, the study also suggests the government units to promote courses related to the action learning, encourage students to conduct more such courses, and provide students more course training and assistance.

## References

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS quarterly*, 425-478.

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