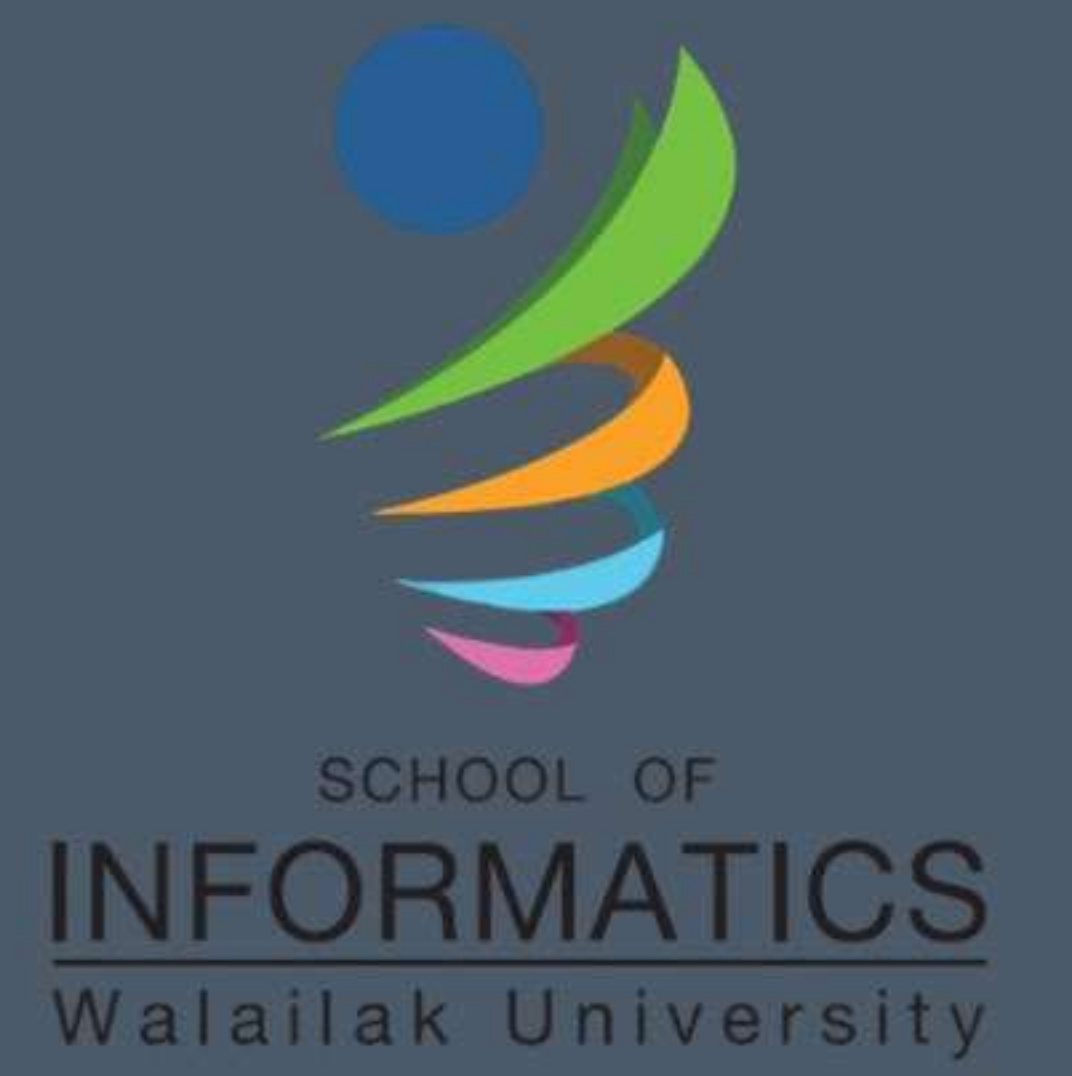




# A Comparison of Learning Outcomes in Electronic Business Subject through Applying Electronic Testing System and Traditional Teaching Method



**Kanjana Haruehansapong**  
School of Informatics, Walailak University, Thailand

## OVERVIEW

E-Testing is a new platform of the exam innovation used instead of paper-based testing. Nowadays a large number of users using this system is slightly increasing. However, paper-based formats remain popular with the examination of many subjects. The researcher found the problem upon how the platform of paper-based testing cannot contribute to active learning for students because of the limitation on developing their self-learning process. Therefore, to demonstrate the studying accomplishment in applying the E-Testing system to the learning process, this experimental research is conducted to compare the studying consequences of students to seek the distinction between the group applying an electronic testing system (E-Testing) and the one using the traditional method (paper-based testing).

## AIMS AND OBJECTIVES

- To compare the studying consequences of students between the group applying E-Testing and the one using paper-based method.
- To study student's satisfaction applying E-Testing in studying process.
- To study the problem emerged from applying the E-Testing system towards enhancing the student learning process.

## ACTIVITY

This studying provided the experimental research upon subject ICT-352 Business Electronic for the 18 third-year students, Information Technology program, Walailak University.

- Divide students into 2 groups with 9 members for each group. The first group is responsible for applying the E-Testing to complete the exercises during the course study throughout the exercise and exam of the course while the second group will be applied using paper-based exercise and exam.
- Conduct the study of all together.
- Provide the post-test assessing student learning for 3 times to compare the studying consequences of both two groups whether there is any difference or not.
- Use the online questionnaire to survey student's satisfaction applying E-Testing at the end of the course.

## OUTCOME

- The research found that in the 3-times testing of the average scores for both 2 groups, there is no distinction upon the scores in the first and the second time of the testing. ( $t=-0.041$ ,  $p>0.05$ ;  $t=0.248$ ,  $p>0.05$ )
- The third time testing indicated that the studying consequence of the subject group applying E-Testing is better than the group using traditional teaching methods. ( $t=2.283$ ,  $p<0.05$ )
- The results of using the questionnaire's responses from the groups demonstrated a comparison between the satisfaction of applying E-Testing and the traditional teaching method. It found that the score satisfying with E-Testing is at a high level (4.06) while the score for the traditional teaching method without applying E-Testing is moderate (3.28).

	E-Testing	Paper-based
Building understanding	4.00	3.32
Interest in learning	4.05	3.32
Have reliability	4.05	3.37
Learner development	3.89	3.42
Checking the score	4.16	3.00
Overall satisfaction	4.21	3.26

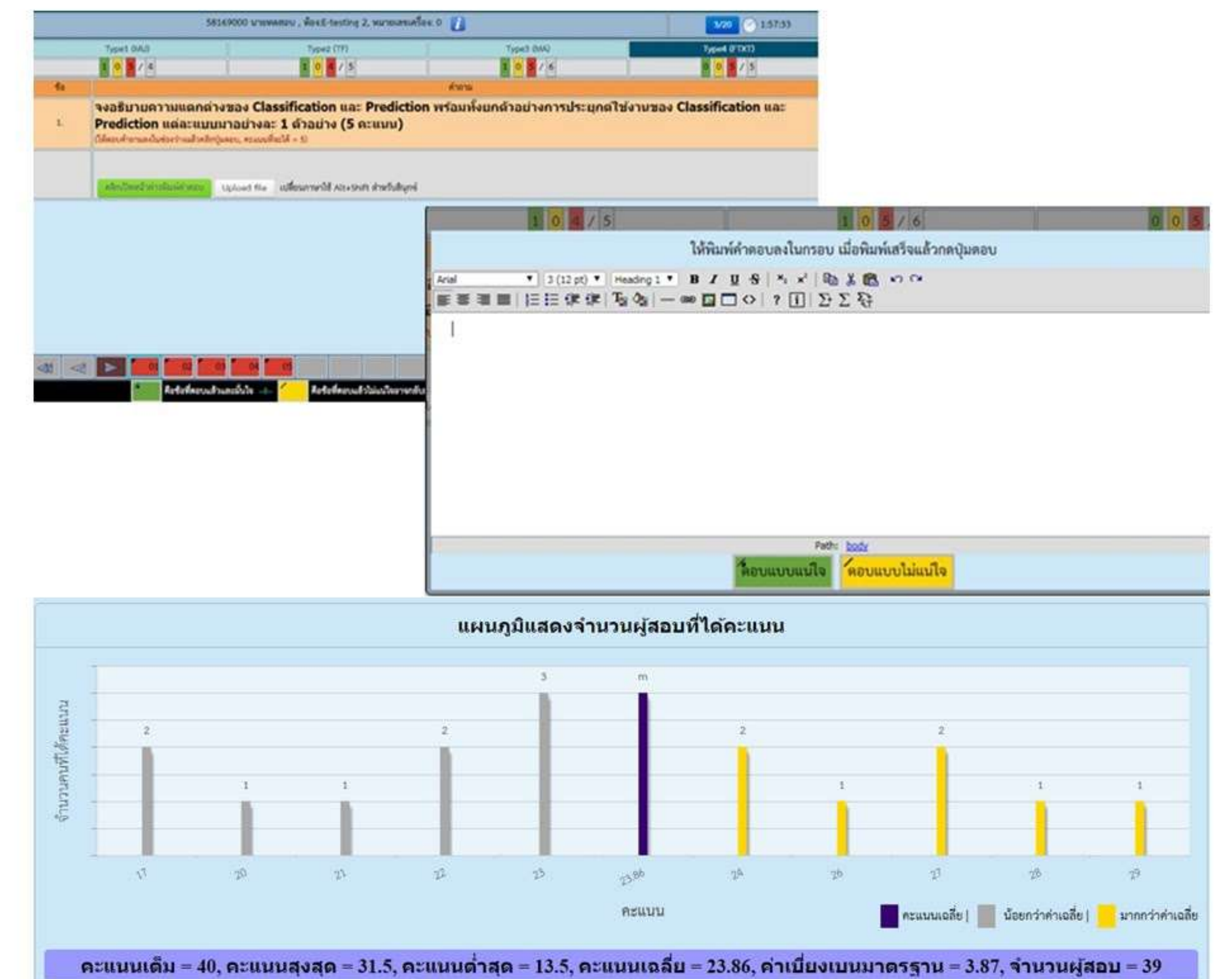
**Outcome:** comparing the students satisfaction score



**The study samples:** IT program students

## IMPACT

The research found that the studying consequence of the group applying E-Testing is better than the group using the traditional teaching method. The reason might be the way E-Testing is a great instrument assisting each student to reflect their studying consequence. In this way, the students will grab their mistakes towards improving themselves quite better. However, the result might not be practically effective at the first-time using the system. Also, it is found that the students are willing to apply E-Testing as it helps them enjoy the examination. They agreed with the idea of applying E-Testing system to the studying process instead of using general paper-based testing.



**WU E-Testing system**

## FUTURE DEVELOPMENT OF PROJECT

I plan to integrate the use of WU E-Testing system in all subjects and compare the results in each subject to prove that the average test scores of students in the group using the WU E-Testing system in teaching are better than the control group that with traditional teaching.

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