

An analysis of How Online Tool Makes Influence Students' English Learning Efficiency: Evidence from International School Online English Lesson

Xinyi Wu^{1, a}

¹School of Education and Languages, The Metropolitan University of Hong Kong, Hong Kong, 999077 China

^aCorresponding Author's Email: s1240718@hkmu.edu.hk

Abstract: In recent years, due to the COVID-19 pandemic, online classes have become a common way for teachers and students to have lessons. In order to improve the learning efficiency of online courses, teachers can help students improve classroom efficiency and academic performance by changing different instructional methods. This paper first reviews the previous research on teacher presentation and compares and lists the differences between this experiment and the previous paper. This paper mainly explores whether using online learning tools before class can improve students' English scores through experiments. After the online class, interviews are conducted with the students to further demonstrate the questionable sections of the research.

Keywords: Kahoot, Online lesson, Instruction effect, Students' learning outcomes.

1. Introduction

This essay and the research involve creativity as though there are a number of research on the background of the online environment, most of them compared the difference between online teaching and traditional teaching and the result is that the students have higher satisfaction with online teaching. There is also research exploring the online platforms or the instruction effect on students' learning outcomes. However, there is no specialized research that explores the relationship between an online tool which is Kahoot, and students' reading competency. This research regards whether using the online tool as a kind of teacher's instruction effect which is different from the previous research that is being mentioned.

2. Literature Review

A growing number of literature contributed to the investigation of how instructional effects make influence students could be obtained. It is to say, some of the instruction effects like keeping eye contact in online lessons can improve students' learning outcomes whereas whether teachers are showing their faces in front of the cameras in online lessons does not help to improve students' grades. There is a relationship between the instructor's presence and students' satisfaction with learning. The instructor's presence improves students' satisfaction [1]. Similarly, examples are stating that it is the teachers' faces on the video that makes an important role in students' online learning [2]. However, the result shows that instructors' faces do not promote students' learning. Besides, speakers' voices in multimedia learning [3]. What is more, other experts did similar experiments to investigate the instructors' faces in learners' learning with similar results to the experiment [4]. Eye-gaze guidance can be a kind of instructor effect [5]. Besides, eye-gaze guidance can improve learners' learning [6]. Whether the instructor shows their faces or not can also be one form of instructor effect [7&8]. What makes this essay different is the different focus on the instruction effect, it is the usage of Kahoot that is used as a variable to explore the relationship between online

tools between students' learning outcomes. What is more, two studies were conducted to investigate the effects of video on students' cognitive loading and social presence in multimedia learning. It is students' preferences on video that lead to the cognitive load [9]. In this research, it is students' likeness toward the online tool that increases their satisfaction with online lessons.

3. Methodology

3.1. Research Background

In terms of subjects of study, 60 students participated in this research; each grade contains 20 students For Grade 1, there are 10 girls and 10 boys. In terms of grade 2, 12 girls and 8 boys took part. There were 9 girls and 11 boys from grade 3 who participated in this research. In the beginning, randomly divided participants into two groups which are group A and group B. Group A is the experimental group with an online learning tool while group B was the control group without an online learning tool at the beginning of the online lesson.

3.2. Research Goal

The research goal is to explore the relationship between students' English learning outcomes in different groups which relates to whether using the online tool before the online lessons through conducting research. The presumption of the research is using the online tool can improve students' scores. The alternative hypothesis is online learning tools do not significantly affect students' performance in English while the null hypothesis is online learning tools will significantly affect students' performance in English. Besides, the research can explore the relationship among results of reading, different groups, and other variables including gender, grade, age, satisfaction, and concentration on online lessons.

3.3. Research Method

This research was undergone on April 6th on zoom. The participants are all students from an international high school in Dongguan City, Guang Dong Province. This research is a mixed experimental study. The experiment controlled the

variables. The independent variable was the students' English test scores, and the dependent variable was the online learning tool, Kahoot. Each group has a 40-minute reading online lesson. Group A is an experimental group that uses Kahoot at the beginning of the reading online lesson whereas the B group is the control group without using Kahoot at the beginning of a lesson. Except whether using the Kahoot, the other conditions are the same for group A and group B. After the lesson, there are surveys about collecting students' satisfaction and concentration in the online class. On the evening of the day having the online lesson, there is an IELTS reading quiz testing for exactly an hour to evaluate students' learning outcomes. The result of this test is compared with the latest IELTS reading score. Besides, there are interviews to interview students from grade 1, grade 2, and grade 3 to test their attitudes towards Kahoot and their suggestions for it. The interview is mainly complementary for collecting details involving the latest reading score, the reading score after taking the online lessons, and the satisfaction with and concentration on online the lesson. After the online class, questionnaires were delivered to participants to investigate the degree of satisfaction and concentration on online lessons. The interview followed after collecting the data to explore the relationship between the variables in question to demonstrate the initial experimental conjecture that groups are related to students' English achievement.

3.4. Data Analysis

Different data is collected during the process. The app that is used for analyzing the data is SPSS which is the latest

version. The variables are gender, online tools, satisfaction, and concentration on the lessons. All the data should be recorded in the SPSS to show the relationship from a statistical aspect. All data were first imported into Excel and then imported into SPSS for linear regression, multiple equations, and a single sample T-test to analyze the relationship between various variables.

4. Research Result

To figure out the relationship between variables and students' learning outcomes. Though the average score on the reading test of group A with Kahoot is higher than that of group B without using Kahoot at the beginning of the online lesson, it does not mean there is a relationship between using the online tool and the students' scores. In other words, it cannot get the conclusion that the online tool leads to a high score in the reading of group A students. There are three conclusions in total. First, there is a significant relationship between English learning performance and gender. It is the female that does a better job than the boys in reading tests after the online lesson. No matter in which grade, it is the girls who have higher scores than boys. This can be observed from Table 1 in terms of a single sample T-test. The significant figure between gender and the IELTS reading test result is 0.003, so there is a relationship between gender and the IELTS reading test result. It also shows that there is no relationship between the test result and other factors because other significant factors are more than 0.1.

Table 1. The relationship between the IELTS reading test result and other factors in terms of a single sample T-test

| Model | | | | | |
|------------|------------------|-------------------------|--------------------------------|-------|------|
| (Constant) | Unstandardized B | Coefficients Std. Error | Standardized Coefficients Beta | t | Sig. |
| group | 1.093 | 3.481 | | .314 | .755 |
| gender | -.147 | .196 | -.085 | -.750 | .456 |
| age | .598 | .195 | .347 | 3.067 | .003 |
| grade | .194 | .238 | .185 | .817 | .417 |
| | .308 | .239 | .292 | 1.289 | .203 |

Secondly, from the table 2, online learning tools can improve students' class satisfaction. It is group A with the online tools has the higher satisfaction with the online tool

whereas the significant figure is less than 0.1 which is 0.097. It means that the group using Kahoot has higher satisfaction of the lesson.

Table 2. The relationship between the degree of satisfaction and other factors in terms of multiple equations

| - | | Estimate | Std.Error | Wald | df | Sig. | Lower Bound | Upper Bound |
|-----------|----------------------------|----------------|-----------|-------|----|------|-------------|-------------|
| Threshold | [degree of satisfaction=0] | 3.889 | 17.061 | .052 | 1 | .820 | -29.550 | 37.329 |
| Location | age | -1.555 | 1.252 | 1.543 | 1 | .214 | -4.009 | .899 |
| | gender | -1.056 | 1.271 | .690 | 1 | .406 | -3.547 | 1.436 |
| | Last test result | -12.369 | 4.166 | 8.815 | 1 | .003 | -20.534 | -4.204 |
| | This test result | 17.817 | 5.908 | 9.094 | 1 | .003 | 6.237 | 29.397 |
| | grade | -1.524 | 1.368 | 1.241 | 1 | .265 | -4.204 | 1.157 |
| | [group=1] | 2.364 | 1.424 | 2.756 | 1 | .097 | -.427 | 5.155 |
| | [group=2] | 0 ^a | . | . | 0 | . | . | . |

Thirdly, from table 3, there are no significant relationships between the degree of concentration and other factors. All the

significant factor in the is more than 0.1 It does not mean that the group using Kahoot has a higher concentration of the

lesson.

Table 3. The relationship between the degree of concentration and other factors in terms of multiple equations

| - | | Estimate | Std.Error | Wald | df | Sig. | Lower Bound | Upper Bound |
|-----------|-----------------------------|----------------|-----------|-------|----|------|-------------|-------------|
| Threshold | [degree of concentration=0] | .911 | 17.799 | .003 | 1 | .959 | -33.974 | 35.796 |
| Location | age | -1.055 | 1.214 | .755 | 1 | .385 | -3.433 | 1.324 |
| | gender | -.466 | 1.006 | .214 | 1 | .644 | -2.437 | 1.506 |
| | Last test result | -7.276 | 2.148 | 11.47 | 1 | .001 | -11.487 | -3.066 |
| | This test result | 10.453 | 2.796 | 13.96 | 1 | .000 | 4.969 | 15.936 |
| | grade | .317 | 1.127 | .079 | 1 | .778 | -1.891 | 2.526 |
| | [group=1] | .804 | .977 | .678 | 1 | .410 | -1.110 | 2.718 |
| | [group=2] | 0 ^a | . | . | 0 | . | . | . |

5. Conclusion

After the interview, group A students think that using the game to start their study can intrigue their interests in English and they choose they satisfy with the class in the questionnaires. Students' satisfaction is high which does not mean they can stay focused the whole lesson. According to their words, some of them were still thinking about the games that were set at the beginning of the lesson during the latter part lesson which led to the result that they cannot fully stay focused on the latter part of the lesson. As students did not recite the vocabulary and synonyms of different vocabulary items well; they did not do a good job on the test the day they had the online lesson. Nevertheless, liking does not always lead to learning. Online tools as a form of instructor effects cannot improve satisfaction while improving students' grades at the same time. It is to say, as a teacher, it is not appropriate to give presumption that using one kind of online tool would improve students' learning outcomes but ignore whether students truly acquire knowledge and absorb information. However, the online tool can be used as a function to intrigue students' interests in learning and better facilitate what needs to learn after the warm-up activities section. It is better that teachers arrange the lesson appropriately by equipping the lessons with the online tool.

References

- [1] Ladyshewsky, R. (2013). Instructor presence in online courses and student satisfaction. *The International Journal for the Scholarship of Teaching and Learning*, 7(1), 1-23.
- [2] Sheridan, K., & Kelly, M. A. (2010). The indicators of instructor presence that are important to students in online courses. *Journal of Online Learning and Teaching*, 6(4), 767.
- [3] Mayer, R. E., Sobko, K., & Mautone, P. D. (2003). Social cues in multimedia learning: Role of speaker's voice. *Journal of Educational Psychology*, 95(2), 419-425. <https://doi.org/10.1037/0022-0663.95.2.419>
- [4] Kizilcec, R. F., Bailenson, J. N., & Gomez, C. J. (2015). The instructor's face in video instruction: Evidence from two large-scale field studies. *Journal of Educational Psychology*, 107(3), 724-739. <https://doi.org/10.1037/edu0000013>
- [5] Pi, Z., Xu, K., Liu, C., & Yang, J. (2020). Instructor presence in video lectures: Eye gaze matters, but not body orientation. *Computers & Education*, 144, 103713. <https://doi.org/10.1016/j.compedu.2019.103713>
- [6] Wang, H., Pi, Z., & Hu, W. (2018). The instructor's gaze guidance in video lectures improves learning. *Journal of Computer Assisted Learning*, 35(1), 42-50. <https://doi.org/10.1111/jcal.12309>
- [7] Richardson, J. C., Koehler, A. A., Besser, E. D., Caskurlu, S., Lim, J., & Mueller, C. M. (2015). Conceptualizing and investigating instructor presence in online learning environments. *The International Review of Research in Open and Distributed Learning*, 16(3). <https://doi.org/10.19173/irrodl.v16i3.2123>
- [8] Yang, J., Zhu, F., Guo, P., & Pi, Z. (2019). Instructors' gestures enhance their teaching experience and performance while recording video lectures. *Journal of Computer Assisted Learning*, 36(2), 189-198. <https://doi.org/10.1111/jcal.12397>
- [9] Homer, B. D., Plass, J.L & Blake, L. (2008). The effect of video cognitive load and social presence in multi-media learning [J]. *Computers in human behaviour*. 24 (3), 786-797.
- [10] Wilson, K. E., Martinez., M., Mills, C & et al. (2018) Instructor presence effect: liking does not always lead learning. *Computers & education*, 122 (7), 205- 220.