Student Perceptions of Online Quiz as a Supporting Tool in Learning Chinese

Lin Xué* and Mariana

Chinese department, Faculty of Humanities, Bina Nusantara University, Jakarta, Indonesia, 11480

*xuelin@binus.ac.id

Abstract. In this paper, we describe the students’ perception of the online quiz as supporting learning tool in learning Chinese. We aimed to acknowledge the benefits and limitations of using online quiz in learning Chinese, students’ behavior and motivations, and their expectations towards online quiz. We made the quiz using an online quiz maker and assigned to students during an off-class period in one semester. We collected the data from the questionnaire using Google form. We used quantitative and qualitative approaches to analyse the data. The result showed that the benefits of the online quiz are the flexibility of place and time, immediate feedback and more attempts were allowed. The limitations despite internet or computer problems, provides multiple correct answers in the fill the blank’ model became the most significant challenge and should have more attention from the teacher. It caused a different answer and false answer from the provided answer. Most of the students have positive behaviour and motivations towards the quiz. They completed the quiz and did the review before or after taking the quiz. The students expected online quizzes were assigned on off-class’ period and before mid-term or final term exam for other courses.

1. Introduction

Providing feedback and evaluation in learning process always need a testing instrument such as a homework assignment, quiz, exam, or practice test. As information technology evolves, people used the web for learning increasingly for a more interactive application such as online homework and online testing. The computer-based (online) homework has become an alternative to paper and pencil (paper) homework. It hosted online for a homework assignment, and students submit their answer online as well. The students’ answer can be evaluated automatically by comparing their answers to the answers that were provided by the teacher or instructor. online testing integrates the web-based technology into course, and used as a tool with many pedagogical features: to fit students lifestyle for the flexibility of Internet access, to assess student learning, to guide and motivate students to invest time and effort in studies, to advance students problem-solving skills, and to enable instructors better understand the student learning. Online testing is an innovative and effective tool that benefits students and instructors[1]. It also mentioned that practical online formative assessment could nurture a student assessment centred focus from formative feedback, and nourished student commitment with valued learning experiences. Therefore, the present study investigated the used of online quiz in teaching and learning Chinese as the second language at a higher education field. This study has addressed the following questions, how students think about the online quiz, the benefits and limitations using the
Many researches focused on the effects of using online quizzes as an assessment tool on students’ academic performance and preparation for the classroom. Such as; online quizzes were found to be an effective mechanism for incentivizing student completion of preparatory work, enhancing active learning, and were relatively time-efficient from the perspective of the educator[3]. There was a research required the experimental group to complete the pre-lecture online quizzes, and the result showed the participants’ score higher on the final examination at the end of the semester than the control groups[4]. There was also other research conducted in a third-level online college, using learning analytics to examine the implementation of formative quizzes in a blended-learning post-primary teaching programme[5]. Others encouraged educators to explore and implement ways to include time pressure in online quizzes and learning[6].

While other studies focused on both performance and the students’ perceptions or attitudes about web-exercises or online quizzes such as students significantly improved their scores and considerably shortened students’ completing time on the last attempts of the quiz, as their first attempts and the students’ attitudes towards online reveals a positive attitude with no differences from gender perspective. Between attitudes and scores in online quizzes were found a significant positive relationship[7]. There was research showed that English for Academic Purpose’ students had positive attitudes towards web-based language tests on vocabulary and provided several advantages[8]. Other research aimed to improve students’ engagement in a literary theory course and to facilitate learning complex concepts, indicated the students’ attitudes towards online quizzes on the key concepts were positive, and the quizzes given before the face-to-face classroom helped the students prepare for the upcoming classroom discussions[9]. And other research revealed that student scores did not increase significantly as the result of the introduction of adaptive quiz (online quiz), indicating that students may not be suitable to assess their learning outcomes. Despite this, adaptive quizzes have value to increase student motivation and engagement[10].

2. Research Methods

The participants were the students of Chinese Department Bina Nusantara University who had used online quiz (ProPofs) as learning practice and online homework. Chinese Language I, Chinese Language V, and History of China courses administered the quizzes. Each subject of the course has three times off class in one semester study period. The online quizzes assigned at the range of these periods, 14-18 October 2019, 25-29 November 2019, and 9-16 December 2019. We used ProPofs online quiz maker to develop every quiz. The quizzes included multiple-choice, true or false and fill in the blank. For the Chinese Language class, the quizzes were about the grammar point from the units that students had already studied face to face in the classroom. We used the fill in the blank to let students answer “rearrange the sentence” questions; therefore, students required to type Chinese character (Hanzi) and input to the quizzes. In history class, the materials were about the knowledge of China ancient history. Through ProPofs Quiz Maker, the quizzes administered. We shared the link of the quizzes at university’ LMS discussion forum. Students had to log in to ProProfs’ website to take the quiz. Only two attempts were allowed for students to do the quiz. Each quiz set the time from 15 minutes until 90 minutes based on the difficulty level. The number of question 10-15 questions for each quiz. We did not monitor students’ performances and incorporated them into course grades. We collected students’ answers from the report and summary that the online quiz maker provided. We also used Google form with a semi-structured questionnaire to collect students’ perceptions, attitudes, benefits and limitations of online quiz in supporting Chinese learning. Two weeks before the semester ended, we shared the questionnaire and collected two weeks after. This research adopted a quantitative and qualitative approach to data collection.
3. Discussion

Total of 65 students’ response was received from the questionnaire and gave feedback about their experiences, perceptions about using the online quiz as supporting tools in learning Chinese.

3.1. Benefits and Limitations of Online Quiz

There were 42.4% (28) students prefer online quiz than printed quiz as a practice tool, 39.4% (26) of the students thought to use online quiz as well as the printed quiz, and 18.2% (12) students prefer printed quiz. This result in line with [7] its result, in answer to the question:” If you had a choice, which would you prefer—an online test or a written test?” 76% chose online quizzes. While other study showed the mean and standard deviation statistical results were found to be similar between both paper based and online exams in the multiple choice question, true or false, and numerical type of questions; while the essay questions results indicated that the students preferred to answer on paper rather than type on the computer screen [11]. There were some benefits of using an online quiz, mostly because of the flexibility, 58 students thought to take the quiz anywhere and anytime, 51 students thought it would give immediate feedback, and 38 students thought the opportunity to have multiple attempts. In the case of paper-quiz or homework, all feedback postponed until the teacher graded the assignment. Others thought that the online quizzes help them to review the materials, did not feel under pressure when doing it, and it was paperless, it benefits the environment. Though students also revealed the limitations in using an online quiz such as the internet or computer’ problems (49 students), the system was not able to recognize the answer that slightly different from the provided answer (45). The difficulty of typing Chinese character (Hanzi) and less practical because it needed to make user account before entering the quiz (21), others also mentioned about hurting the eyes also became the disadvantage. The system provided with the precise answer, in some cases, especially in fill in the blank model, students added some punctuation mark in their answers, and it claimed as a false answer (Figure 1).

![False answer for adding a punctuation mark](image1)

**Figure 1.** False answer for adding a punctuation mark

Another limitation might appear to type the wrong Chinese character. This limitation will also make the system claimed as a false answer (Figure 2). It will happen less on a printed-quiz format.
3.2. Student’ Behavior and Motivations in Doing Online Quiz

There were 45.5% (30) students did the review of the material first before doing the online quiz, 36.4% (24) students took the quiz first then reviewed the material after it, and only 18.2% (12) students took the quiz directly and did not do any review after it. These behaviours indicated that students were willing to do reviewing before or after the quiz. Most of the students, 72.7% (48) felt motivated to review the material when or after doing the online quiz. It showed that online quiz could encourage students’ motivation to review the materials. Fifty-five students thought the online quizzes were relevant to the subject presented during lecture. Therefore, getting immediate feedback was very helpful for them to understand more about the subject, 53% (35) agreed and, 12.1% (8) strongly agreed with this statement. Overall, 96.9% (63) students’ experiences were positive towards using online quiz in learning, and 95.5% (61) of the students admitted they had completed all the online quizzes. Moreover, 36 students felt that doing online quiz made them think more about the materials than usual and 19 students mentioned even if not graded, they would complete the quiz. It showed persistence of the students in accomplishing the online quiz.

3.3. Student’ Expectation of Online Quiz in Learning

There were 18.2% (12) students thought that it should recommend online quiz for other subjects and 59.1% (39) students thought it depend on the subject. With the opportunity to do the quiz more than once, 18.2% (12) students thought it was very beneficial, and 56.1% (37) students felt it was useful. As a result, 33.8% (22) students expected no limitation on online quizzes attempt and 29.2% (19) students expected 2 or 3 attempts were allowed in each quiz. First semester students tend to try more in next quizzes, but the fifth-semester students tend to try less (Table 1). The result showed student’ recommended of attempt versus the actual number of attempts were no limitation versus only average 1-1.5 attempts. A possible explanation for this, by knowing that they have more attempts available gives the students the confidence they need to perform better. However, they seem did not intend to use the available attempts to improve learning and try to achieve a better grade. Some of the students who tried more than one attempt because of the limitation that the system has such as punctuation mark or type incorrect character, therefore they wanted to adjust their answers and grades. The students 59.1% (39) expected the online quiz only assigned at off class schedule, and 21.2% (14) students expected the quiz only assigned before mid-term exam and final term exam.
| Course                  | Semester | Students | Q1 | Q2 | Q3 |
|-------------------------|----------|----------|----|----|----|
| Chinese Language V      | 5        | 23       | 38 | 30 | 22 |
| History of China        | 5        | 65       | 85 | 83 | 59 |
| Chinese Language I      | 1        | 29       | 29 | 64 | 52 |

4. Conclusions

In the digitalized era, young people have easy access to the internet and using the internet platform to learn any subjects or get information about a particular topic. Hence, online quiz became one of the supporting tools in learning has provided some benefits for nowadays teaching and learning. Online quiz has its flexibility and gives more immediate feedback became the most benefits in learning. Despite it, in learning Chinese the limitations of using rearrange sentence as question model, it was challenging, because the quiz maker did not provide the model, so we used “fill in the blank” model to cover the limitation. As a result, if the provided answer did not include a punctuation mark, the system will claim it was a false answer. It means, the educators should pay more attention in this problem by providing more than one possible correct answer or give notice in face to face classroom or put the instruction at the top of the quiz that it does not need punctuation mark. Students had very active behavior and positive attitudes towards the online quiz, even though they expected the online quiz assigned only at off class period or before a mid-term and final exam. An online quiz can be beneficial as a tool for reviewing the materials and also encourage them to learn more. It makes online quiz is suitable highly recommended for many learning subjects in a higher education field.

References

[1] Chen L 2015 Using Online Tests to Enhance Teaching and Learning 2015 3d International Conference on Advanced Information and Communication Technology for Education (ICAICTE-2015) (Atlantis Press)
[2] Baleni Z 2015 Online formative assessment in higher education: Its pros and cons Electronic Journal of e-Learning13 228–36
[3] Cook B and Babon A 2016 Active learning through online quizzes: better learning and less (busy) work Journal of Geography in Higher Education
[4] Kilickaya F The Effects of Pre-Lecture Online Quizzes on Language Students’ Perceived Preparation and Academic Performance 26
[5] O’Dowd I 2018 Using learning analytics to improve online formative quiz engagement telji3
[6] Jaeger M and Adair D 2016 Time pressure in scenario-based online construction safety quizzes and its effect on students’ performance European Journal of Engineering Education42 1–11
[7] Cohen D and Sasson I 2016 Online quizzes in a virtual learning environment as a tool for formative assessment Journal of Technology and Science Education6 188–208
[8] Dashtestani R 2015 Examining the use of web-based tests for testing academic vocabulary in EAP instruction Teaching English with Technology15 48–61
Acknowledgement
The authors gratefully acknowledge that the present research was supported under the research grant Binus University of Year 2019 (033/VR.RTT/IV/2019).