TAIWANESE STUDENT ATTITUDES TOWARDS AND BEHAVIORS DURING ONLINE GRAMMAR TESTING WITH MOODLE

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Main Points

- When taking online tests, students like not having a time limit as well as being able to reference their book and work with friends.

- Students like being able to take the test multiple times to get a higher score.

- Teachers should open a dialogue with their students to examine their wants and target needs and how best to match them with those of the teacher.
Introduction

- Computers have been used for CAI and language instruction since the 1960s (Butler-Pasco & Wilburg, 2003; Lacina, 2004; Stevens, 1989).
- Computers in the language classroom serve three roles: tutor (offering language drills), tool (serving software), and medium (allowing global communication) (Kern, 2006).
- Using computers in education provides benefits to both teachers and learners (Erban, Ban, & Castañeda, 2008; Healey & Klinghammer, 2002; Lacina, 2004).
- CALL is now an integrated part of L2 classrooms and addresses many goals (Fotos & Browne, 2004; Provenzo, Brett, and McCloskey, 2005).
“Technology underlies forms of communication possible for increasing language contact and globalization, which in turn affect language education” (Chapelle, 2008, p. 585).

More students than teachers participate in CMC compared to traditional face-to-face interaction (Kern, 1995; Son, 2002; Sullivan & Pratt, 1996).

Learners produce more lexically and syntactically complex sentences and engage in a wider variety of participant roles in online communication environments (Kern, 1995; Pellettieri, 2000).

Both teachers and learners prefer Moodle over other CMSs for its organization of materials, ease of access, and better visual appearance (Beatty & Ulasewicz, 2006; Carvalho, Areal, and Silva, 2011; Kavaliauskienė, 2011; Lawler, 2011).
Previous research has examined student preferences for test format in EFL language testing (Chiste & O’Shea, 1988; Hayward, 1990; Horowitz, 1986; Teemant, 2010, 2013).

Recent research has shown promise for dynamic testing for EFL students (Sims, 2010; Taylor, Jamieson, Eignor, & Kirsch, 1998; Teo, 2012a, 2012b, 2014).

- It has been found to be faster than paper-based tests but equally as valid for testing English reading comprehension of Taiwanese university students (Sims, 2010).
- It has been shown to significantly improve test scores (Teo, 2012b, 2014).
Purpose and Rationale

- There is a paucity of research in Taiwanese students’ online testing in the area of grammar and writing.

- This research seeks to assess Taiwanese students’ attitudes towards using Moodle as an online testing facility and ascertain what benefits and drawbacks they perceive in using it.

- To that end, a self-report survey was administered to investigate the following research questions:
Research Questions

1. What are Taiwanese students’ attitudes towards online testing with Moodle?
2. Do Taiwanese students use their books or work with friends when taking online tests?
3. What features of online testing with Moodle do Taiwanese students find helpful?
4. What features of online testing with Moodle do Taiwanese students not find helpful?
5. Where do Taiwanese students usually login from when taking online tests and what devices do they usually use to take online tests?
6. How many minutes does it usually take a Taiwanese student to finish a test on Moodle?
Methodology

- Forty-six students studying English at a private university in central Taiwan.
  - 22 males (47.8%) and 24 females (52.2%).
  - 19-24 years old ($M = 20.5$)
- All were enrolled in a sophomore-level writing course.
- Course was taught in the classroom; chapter quizzes were given online.
- Instrument was given in English and Chinese on Google Drive; students had several weeks to complete the questionnaire.
Methodology

- **Instrument had three parts:**
  - Five questions gathering demographic data
  - Seven questions assessing students’ attitudes towards online tests.
    - Five-point scale from ‘strongly disagree’ to ‘strongly agree’
  - Two questions assessing students’ behaviors when taking online tests.
    - Five-point scale from ‘strongly disagree’ to strongly agree’
  - Five questions assessing students’ habits when taking online tests.
    - Checkboxes; the students picked the most appropriate answer.

- **SPSS 22 used to analyze frequencies, percentages, and reliability coefficients.**
### Results – Part I

<table>
<thead>
<tr>
<th>Question</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>I like taking tests on Moodle.</td>
<td>3.89</td>
<td>1.10</td>
</tr>
<tr>
<td>Taking tests on Moodle is easier than taking paper tests.</td>
<td>4.00</td>
<td>0.94</td>
</tr>
<tr>
<td>Taking tests on Moodle is less stressful than taking paper tests.</td>
<td>4.28</td>
<td>1.03</td>
</tr>
<tr>
<td>Taking paper tests is easier than taking online tests.</td>
<td>2.78 (3.22)</td>
<td>0.96</td>
</tr>
<tr>
<td>Taking paper tests is less stressful than taking online tests.</td>
<td>2.41 (3.59)</td>
<td>0.83</td>
</tr>
<tr>
<td>Online tests are useful for learning grammar and vocabulary.</td>
<td>3.76</td>
<td>0.99</td>
</tr>
<tr>
<td>Online tests are useful for reviewing grammar and vocabulary.</td>
<td>3.87</td>
<td>1.00</td>
</tr>
<tr>
<td>Cronbach’s $\alpha$</td>
<td>.846</td>
<td></td>
</tr>
<tr>
<td>$M$</td>
<td>3.80</td>
<td></td>
</tr>
</tbody>
</table>
## Results – Part II

<table>
<thead>
<tr>
<th>Question</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>When taking online tests, I will use my book as a reference.</td>
<td>3.72</td>
<td>1.089</td>
</tr>
<tr>
<td>When taking online tests, I will work with my friends.</td>
<td>3.07</td>
<td>1.340</td>
</tr>
<tr>
<td>Cronbach’s $\alpha$</td>
<td>.734</td>
<td></td>
</tr>
<tr>
<td>$M$</td>
<td>3.40</td>
<td></td>
</tr>
</tbody>
</table>
## Results – Part III

<table>
<thead>
<tr>
<th>Question 10 – What is your favorite feature of online tests?</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No time limit</td>
<td>13</td>
<td>28.3%</td>
</tr>
<tr>
<td>Working with partners</td>
<td>12</td>
<td>26.1%</td>
</tr>
<tr>
<td>Being able to take it multiple times</td>
<td>10</td>
<td>21.7%</td>
</tr>
<tr>
<td>Being able to use the book</td>
<td>5</td>
<td>10.9%</td>
</tr>
<tr>
<td>Instant grading</td>
<td>5</td>
<td>10.9%</td>
</tr>
<tr>
<td>Instant feedback</td>
<td>1</td>
<td>2.2%</td>
</tr>
</tbody>
</table>
### Question 11 – What feature of online quizzes do you not like?

<table>
<thead>
<tr>
<th>Feature</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Having to take it multiple times</td>
<td>31</td>
<td>67.4%</td>
</tr>
<tr>
<td>Having to do it outside of class</td>
<td>10</td>
<td>21.7%</td>
</tr>
<tr>
<td>Not being able to see the correct answers right away</td>
<td>3</td>
<td>6.5%</td>
</tr>
<tr>
<td>Not having easy access to a computer/internet</td>
<td>2</td>
<td>4.3%</td>
</tr>
</tbody>
</table>

### Question 12 – Where do you usually take online tests?

<table>
<thead>
<tr>
<th>Location</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family home</td>
<td>23</td>
<td>50.0%</td>
</tr>
<tr>
<td>Dormitory</td>
<td>19</td>
<td>41.3%</td>
</tr>
<tr>
<td>University/Classroom</td>
<td>3</td>
<td>6.5%</td>
</tr>
<tr>
<td>In transit</td>
<td>1</td>
<td>2.2%</td>
</tr>
</tbody>
</table>
### Results – Part III

**Question 13 – What device do you usually use to take online tests?**

<table>
<thead>
<tr>
<th>Device</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop PC</td>
<td>26</td>
<td>56.5%</td>
</tr>
<tr>
<td>Laptop</td>
<td>16</td>
<td>34.8%</td>
</tr>
<tr>
<td>Smartphone/Tablet</td>
<td>4</td>
<td>8.7%</td>
</tr>
</tbody>
</table>

**Question 14 – How many minutes does it usually take you to finish an online test in Moodle?**

<table>
<thead>
<tr>
<th>Time Range</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-40</td>
<td>14</td>
<td>30.4%</td>
</tr>
<tr>
<td>40-50</td>
<td>12</td>
<td>26.1%</td>
</tr>
<tr>
<td>20-30</td>
<td>7</td>
<td>15.2%</td>
</tr>
<tr>
<td>50-60</td>
<td>7</td>
<td>15.2%</td>
</tr>
<tr>
<td>60+</td>
<td>4</td>
<td>8.7%</td>
</tr>
<tr>
<td>10-20</td>
<td>2</td>
<td>4.4%</td>
</tr>
</tbody>
</table>
RQ1: What are Taiwanese students’ attitudes towards online testing with Moodle?

- Students held mostly positive views towards online testing.
- They also found online testing useful for both learning and reviewing vocabulary and grammar.
  - They are low proficiency. Not having a time limit may be beneficial in that they have time to look up and review vocabulary and grammar.
Discussion

- **RQ2:** Do Taiwanese students use their books or work with friends when taking online tests?

- Most students took part in both of these habits.
  - It is to each student's advantage.
  - There are no time limits; students were told they could use their books or work together to reference answers and achieve higher scores.
Discussion

- RQ3: What features of online testing with Moodle do Taiwanese students find helpful?

- They liked not having a time limit and being able to take the test multiple times.
  - Students could take the test up to 3 times with their highest score counting for their grade.
  - Students could take the test, check their score, then go back and try again to get a higher score.
RQ4: What features of online testing with Moodle do Taiwanese students not find helpful?

- They didn’t like having to take it multiple times.
  - Students were not forced to take it multiple times. It was an option.
  - They like being able to take it multiple times but not having to take it multiple times?
  - A qualitative study with interviews may reveal the attitudes towards these conflicting findings.
RQ5: Where do Taiwanese students usually login from when taking online tests and what devices do they usually use to take online tests?

- Most students logged in from their family home or dormitory.
- Most used a desktop PC or laptop.
  - An older version of Moodle (1.9) was being used; it doesn’t work well with smartphones.
  - Upgrading to a newer Moodle installation may provide more opportunities for in-class quizzes/exercises on Moodle.
RQ6: How many minutes does it usually take a Taiwanese student to finish a test on Moodle?

Most students took 30-50 minutes.

- Most quizzes consisted of approximately 50 questions.
- Students indicated that they were looking up answers in their books.
- The time spent seems about right for looking up some harder questions and finishing the quiz.
Implications

- When giving online tests, students like not having a time limit in which to finish.
- They also like being able to use their books and work with friends.
- In reality, if you tell students to take online tests, the teacher cannot police students.
- Using the books and referencing answers may be beneficial to students, but it may also result in positive or negative backwash.
Implications

- Students responded that they liked being able to take the test multiple times to get a higher score, but that taking it multiple times was not ideal.

- Teachers should open a dialogue with their students to explain why this is and what benefits it may have.

- Future research should include qualitative data that takes into account students’ attitudes about their preferences for certain features.
Limitations

- Small sample size; generalizations not possible.

- Self-report survey; responses may not be accurate
  - Students may respond with how they believe the instructor wants them to, not with how they honestly feel.

- Reliability of the factors has been established, but the survey instrument as a whole has not been validated.

- The survey may need to be altered slightly and retested with larger and more varied populations.
Future research

- This research filled a research gap and provided crucial data for examining student attitudes towards online testing and the usefulness of certain features of Moodle.
- Future research needs to be done on a larger scale in order to investigate other factors, such as usefulness and helpfulness and to identify which features students find most beneficial.
- A newer version of Moodle will offer more options and ability to meet students’ preferences for online testing.
- Looking at different populations and of varying proficiency levels and disciplines.
Any questions or comments?


References


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