

Computer-Based Internet-Hosted Assessment of L2 Literacy: Computerizing and Administering of the Oxford Quick Placement Test in ExamView and Moodle

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This paper expands upon research previously presented to the 2009 KAMALL-APAMALL Conference on E-language Learning and Testing in a Globalized Era, organized by the Korea and Asia-Pacific Associations of Multimedia Assisted Language Learning, under the title “*Computerization and Administration of the Paper-and-Pen Version of the Oxford Quick Placement Test: Experiences of, Problems with, and Recommendations for the Computer-based Web-hosted Assessment of L2 Literacy*”, and published in their proceedings.

Abstract

Sorting of Korean English-as-a-Foreign-Language (EFL) university students by Second Language (L2) aptitude allocates students to classes of compatible ability level, and was here used to screen candidates for interview. Paper-and-pen versions of the Oxford Quick Placement Test were adapted to computer-based testing via online hosting using FSCreations ExamView. Problems with their online hosting site led to conversion to the popular computer-based learning management system Moodle, hosted on www.ninehub.com. 317 sophomores were tested online to encourage L2 digital literacy. Strategies for effective hybrid implementation of Learning Management Systems in L2 tertiary education include computer-based Internet-hosted L2 aptitude tests. These potentially provide a convenient measure of student progress in developing L2 fluency, and offer a more objective and relevant means of teacher- and course-assessment than student evaluations, which tend to confuse entertainment value and teacher popularity with academic credibility and pedagogical effectiveness.

Keywords: *Online hosted literacy assessment, Oxford Quick Placement Test, L2 digital literacy, Second Language, SLA, L2 literacy, L2 aptitude, EFL, LMS, Korea, Moodle, ExamView, computer-based evaluation.*

1 Introduction

During 2008-9, I acted as Second Researcher of Gavin Austin’s PhD research project, *Variability in L2 inflectional morphology: Syntactic, Phonological and Semantic Issues*, as approved by the University of New England Human Research Ethics Committee, a project involving Dr B Baker, Dr E Ellis, Prof J Siegel, Mr G Austin and myself. I interviewed Sejong University Korean EFL college students. To screen for interview candidates of intermediate English level, I first custom computerized the paper-and-pen version of the Oxford Quick Placement Test (OQPT), a test of English language proficiency that assesses Reading, Vocabulary and Grammar, which is quick and easy to administer, and ideal for placement testing and examination screening [1]. I computerized the OQPT in ExamView, but problems with the FSCreations online hosting service led to my recreating the OQPT in Moodle using Ninehub.com hosting.

2 The Oxford Quick Placement Test

2.1 Administering of the OQPT

In Fall 2008, to generate an adequate pool of suitable students from which to recruit subjects for interview, and to gauge student English literacy level, I gave my computerized ExamView version of the OQPT test to seven classes of sophomore students, General English Zone (GEZ) and Sejong Global Articulation Program (SGAP) classes, and other Sejong students. 155 students were tested using Part 1 (Version 1); and Part 2 (Version 1) was also administered

to 151 of these students. Then in Winter 2008-09, I gave paper-and-pen versions of both tests to classes of 23 and of 14 students. Finally in Spring 2009, in order to encourage student L2 digital literacy, I gave my computerized Moodle version of Part 1 of the OQPT to 162 sophomore students.

2.2 Parallel Versions and Two Parts of The Oxford Quick Placement Test

The OQPT is available in parallel versions, to help minimize the risk of cheating. Both equivalent versions comprise two different levels: Part 1 of 40 questions in 20 minutes is taken by all students; Part 2 of 20 questions in 10 minutes is bundled with Part 1 for all students, or given only to higher ability students (as determined by their performance on the lower level Part 1), or to those who quickly finish Part 1. These four tests are available in both paper-and-pen format, and as computer-based versions (CBT). CBT tests include listening tasks and are computer-adaptive: the computer presents a question and then assesses the student's response. As students progress through the test, questions are automatically adapted to their ability until a consistent level is identified [2]. Therefore, the question order varies from student to student.

3 Envisaged Advantages of Custom Computerizing the OQPT

The advantages to giving these tests using web-based Internet hosting include:

- EFL students are given a task that develops L2 Digital literacy, which I argue is a critical part of EFL pedagogy, the significance of which is not yet recognized [3];
- the task is included as part of their course, for which credit is given;
- although scores are kept, course credit is given on an all-or-nothing basis, so students gain full marks just for attempting and completing (most of) the task;
- the test is quickly and conveniently administered and precisely timed, as the tests are configured to include a built-in timer, which commences for each student on individual log-in, and on expiry prevents further answer modification;
- by incorporating class rosters, a convenient database is generated to record whether students have completed the task, and when and how long they took to do so;

- tests are automatically graded, with scores available on completion in a database;
- individual responses to individual questions are recorded in the database, enabling later analysis of responses - for example, questions that give difficulty to many students can be identified, as can typical wrong answers; and
- an informed sense can then be obtained of the level of English literacy of students at the time of taking the test, individually, by class, and overall.

4 Custom Computerization of the OQPT in ExamView

I computerized the paper-and-pen tests purely for the purposes of research. These computerized versions of the paper-and-pen tests differ significantly in structure from the CBT versions, as they are not computer-adaptive. My adaptations strictly follow the order of questions in the paper-and-pen version, where within four parts, each part becomes progressively more difficult. The question order for all students is fixed; but in my computerized versions (unlike the paper-and-pen version) answer orders (i.e. within a question) are automatically scrambled, and vary for each student attempt. To honor copyright, these customized computer versions will not be distributed.

I OCR-processed the scanned OQPT pdf, editing and correcting the text. The tests were then first computerized using FSCreations ExamView Pro version 5.0 for the Mac, utilizing Multiple Choice Questions throughout (which required some ingenuity). Signs in the first five questions of Part 1 of both versions of the test were recreated in the ExamView Pro word-processor. Minimal necessary changes to the English language instructions were needed to suit the form-based digital environment, so that for each question, instead of being instructed to mark one letter on the Answer sheet, students were required to choose one letter from the corresponding drop-down menu.

The tests were published to the online ExamView Learning and Test Center hosted by FSCreations, together with class rosters (of text files with first and last names, and student IDs). Publication involved setting passwords to each class, setting time limits on when the test would be available to take, and enabling an electronic timer that limited the duration of time for which the test would be available for each student.

4.1 Administration of the ExamView Custom Computerized OQPT and Problems with the FSCreations ExamView Online-Hosting Service

To administer the tests, information sheets in L2 English were prepared that instructed the students on where and how to access the correct test, and how to log-in, perform and submit the test. A computer lab of adequate size was booked, and tests scheduled.

Online web-based Internet hosting by FSCreations of my exams and tasks published with ExamView Pro software had, in the past, provided me with excellent and dependable service. Although five years of intensive use had resulted in few problems, this time around proved problematic. I commence by instructing the class on the procedure, and giving them the class password needed to access the online test. I then assist individual students as necessary to log-in, and clarify the means of answering questions as well as remind them of the necessity to click the Grade and Submit button on completion. As this is a Placement test, it is Closed Book, and (unlike my other online Tasks, Quizzes, Exams, and Surveys which are generally Open Book), students are not permitted to consult dictionaries or online resources. When they have finished, students are then free to leave the room. The first two scheduled exams were held without difficulty, and students adapted to their new L2 digital test environment without significant problem. But thereafter, the situation rapidly deteriorated.

At the commencement the next day of the third class test, with a class of students seated and ready to commence their task, it was discovered that the FSCreations website which hosted the exams was unavailable. I was forced to postpone the task and cancel the class. In the following period, the fourth class test was similarly affected, and the task had also to be postponed. We subsequently discovered by means of ping tests that a server in Texas - where FSCreations operates - was unavailable, although we were able to establish that other teachers in Korea could still access the test site.

This situation continued for several frustrating days, involving tests I had previously scheduled for seven sophomore classes and one SGAP class. Urgent emails to FSCreations to reestablish contact were and remain unanswered. For the remainder of tasks for the other classes, it was necessary to postpone the online tests until the server came back online, almost a week later. But the difficulties did not finish there.

4.2 More Problems with the Online-Hosting Service...

I had prepared other computer-based tasks for my classes, to utilize the web-hosting offered by the FSCreations website. I could publish these, but when I tried to log-in to them to test them, before giving these tasks to students, I discovered that I had exceeded my yearly quota of web-hosted exams. Therefore, although I had been able to publish the exams - without generating warning notices - they had not been validated, so could not be used. I sought to increase my level of subscription to enable them, but the information needed to renew or to expand a subscription was nowhere to be found on their website. Urgent emails requesting attention on this matter were ignored.

Eventually - by postponing tests as necessary as the hosting service was only intermittently available - it was possible to give the online test to all students. Student rolls were imported from classes where the test was unavailable, to those classes where it was, taking care to remain within the set numerical limits of students per test. For those other tasks that had been validated, and which could not be postponed, including Final Exams, I had to copy hard-copy versions of the tasks, and take them to the scheduled session in the computer labs. A quick determination would be made as to whether the test site was available, and if not, these back-up paper-and-pen versions of the test were instead administered, and were later manually scored.

4.3 ... and Still More Problems!

I then inadvertently discovered that their online hosting service was to be discontinued from the end of 2008. Despite being a subscriber, who paid a yearly subscription to use their hosting service, no notice of this had been received. This was disastrous news. I had built up an extensive library of question banks, tasks and exams that I had hoped to re-administer to future classes, or use as the basis for developing new tasks. Overnight, all of this pedagogical capital had, it appeared, become worthless.

It was possible to administer these tests by publishing them to a local network for use with ExamView Player, but this required the software used to design and publish the test to be of the same platform as the LAN used to administer the test. I was using ExamView Pro for the Mac, but the university LAN was Windows-based, so I would be required to repurchase the software for use on a different operating system. I was not inclined to do this, particularly because of the closing of the web-hosted service.

5 Exploration of Alternative Solutions and Migration to Moodle

I explored a variety of different options, including FormRouter and Adobe Acrobat forms, and proprietary Learning Management Systems, including Blackboard, WebCT, ANGEL, and Moodle. In part inspired by Sean Smith's book review [4], I settled on the open-source learning management system Moodle, and in Spring 2009 moved all of my classes to hybrid use of a Moodle site that was hosted on the Australian site www.ninehub.com. Quizzes, exams and OQPT placement tests from ExamView format needed conversion to a format suitable for importing into Moodle.

Difficulties in transferring questions (used in quizzes, surveys and exams) from ExamView to Moodle were in part initially overcome by lengthy manual recreation. However, I have subsequently exported ExamView questions of the kinds I mainly use from Question Banks and imported them into Moodle, where they then only require minimal reformatting. I elsewhere describe this process in greater depth [3, 5]. True/False and Multiple Choice Questions (with just one correct answer) are exported from ExamView Test Generator 5.0 for the Mac from Question Banks as ExamView XML files, and then imported into Moodle (on www.ninehub.com) by selecting ExamView File format (rather than Moodle XML). Other ExamView questions are recreated anew in Moodle (depending on the type), with similar copy-and-paste of question and answer elements. Other means of export from ExamView (or from other applications) and import into Moodle are available, and typically depend on the platform and version of ExamView (or other application) from which one is exporting; they are described in Moodle documents that include user-created help forums.

Questions 1-5 and 21-40 of Part 1 of the OQPT with a single correct answer are structured without difficulty as Moodle Multiple Choice questions. Questions 1-5 of Part 1 of the OQPT each require the recreation of a sign, which can be accomplished in the Moodle word-processor. However, questions 6-10, 11-15 and 16-20 of Part 1 of the OQPT combine five cloze multiple choice questions in each text. These multiple cloze questions can be recreated using Moodle Embedded Answers (Cloze) questions. Using these multiple choice and multiple cloze questions proved suitable in developing an adequate custom online version of the OQPT in Moodle.

6 Administration of the Moodle Custom Computerized OQPT

In the Spring Semester 2009 I then gave Part 1 of the OQPT via Moodle to eight sophomore classes and two SGAP classes, a total of 162 students. The first experience students encounter with Moodle is the need to create an account and enroll in a course, before they can sit specific tests, and for this I used Email-based self-registration. That activity was a task, for which they receive credit (although I now prefer to create accounts and enroll students myself). This task and problems that arose including access problems to the hosting site for quizzes and tasks are described elsewhere [3, 5]. The site later stabilized and thereafter provided dependable service.

Setting the OQPT as an online task provided a fairly objective measure of English ability. It proved simple to administer, quick (20 minutes for Part 1, and 10 minutes for Part 2 for advanced students only when required), and convenient (a timer on the quiz automatically terminates it for the individual when time from login to the quiz has expired, so whenever students start, they still have the full time allocated). Computerization removed the laborious necessity of manual grading, and produced digital records of the results, while requiring students to engage with the meta-language involved in sitting the test. In the process, students develop L2 digital literacy skills, and learn how to do online tests in English. In principle, the two versions of the test could be used to evaluate general student L2 English ability at the start and at the end of a course (though the makers of the test advise that it is not designed for such use).

For the placement tests I administered in Moodle, each student could view their score on the test. I then gave students an "all-or-nothing" grade for attempting the test, so students received 5% of the final grade for submitting the test, irrespective of their score on the test or number of questions completed, or 0% for not attempting it - in part to reduce their stress levels. I later amended this by setting all answers within a specific question to be of equal value, with answers totaling 100%; students received marks for each question answered. This encouraged them to answer all questions.

A significant disadvantage of Moodle over ExamView is that while grading in Moodle shows which questions were answered incorrectly, the instructor can only determine specifically *which* incorrect answers were chosen by one student at a time. This is limiting, particularly as regards potentially using the quizzes as surveys, where one is interested in all responses. In

contrast, in ExamView, the actual answers chosen, right or wrong, can be downloaded by class, so one could readily conduct surveys, or rapidly analyze quiz answers to determine the most common mistakes a class were making (e.g. confusing “boring” and “bored”), which could later be brought to the class’s attention. However, a patch for Moodle should allow a similar facility.

7 Recommendations for the Computer-based Internet-hosted Assessment of L2 Literacy

There are substantial advantages to assessing L2 Literacy by means of computer-based internet-hosted quizzes. Including such tests helps develop student L2 digital literacy, which as I elsewhere identify, is critically needed [6, 7]. These tests can be integrated into comprehensive learning management systems such as Moodle, and administered as class tasks, with credit given. Administering such literacy tests at the start and completion of a course would provide a sense of individual and class L2 aptitude, and of the effectiveness of the course in developing such aptitude. The tests can be given quickly and efficiently, and are automatically graded, so students can, if desired, learn their score on completion, while teachers can view the scores online in an integrated grading resource, and download class scores into spreadsheets.

However, there are very real limitations to using such testing for evaluating student improvement in L2 ability. Firstly, it is absolutely critical that the online hosting service be reliable, with dependable access. Secondly, it is advisable to ensure students have some prior experience in creating an online account, logging in, and undertaking online quizzes before placement tests are set. Thirdly, the types of questions that can be set in an online environment have certain constraints, and favor set answers e.g. true/false, multiple choice and matching question types, though open-ended and even essay-type questions can also be set and fairly efficiently graded. Fourthly, it is very difficult to ensure students do not cheat. Whilst I maintain that access to online resources should generally be facilitated and consider the skills required to access them desirable to instill, it is difficult to prevent students then improperly accessing online resources when taking online quizzes, placement test and exams, where they may have been instructed not to do so. Similarly, students are adept at using instant messaging clients (as well as cell-phone SMS) to improperly communicate with one another during such tests, and to prevent this is challenging, requiring constant proctoring and distasteful

threats to fail cheating students. Fifthly, institutional computer facilities are very probably limited; computer labs require sufficient computers for each student in the class, and are often set up in pairs, where it is easy for a student to view their partner’s computer screen. Where many teachers and classes require these tests be done at about the same time of semester (e.g. during final exam week), the inherent clustering of demand for suitable computer labs will likely greatly exceed the supply, while at other times of the semester there will probably be little or no use of these facilities. Sixthly, an inherent limitation may be that of teacher motivation - the desire to get good results in a class, so that it appears the class has made a substantial improvement in L2 literacy, may result in the teacher unduly coaching the students for the test, which invalidates the results. Seventhly, the OQPT itself is described by its makers as not being appropriate for repeated use as a progress test, as it is not based on a particular course or syllabus [1]; there is a need to provide comparative online tests that are suitable. Eighthly, as far as I am aware, Moodle does not currently support viewing of actual results, right or wrong, by class, though I anticipate this could be redressed through a patch. Ninthly, ExamView tests can be quickly automatically formatted for and printed as paper-and-pen tests, but Moodle does not support paper-and-pen tests (although question banks can be exported in a variety of formats, and could be imported into other programs for paper-and-pen test publishing).

8 Conclusion

I describe my experiences in adapting the paper-and-pen versions of the Oxford Quick Placement Test to ExamView, and discuss difficulties experienced with that software and with online administering the custom computer-based tests that are produced on their FSCreations site. Secondly, I describe the conversion of the OQPT to Moodle format, and the online administering of the custom computer-based tests that are produced on the www.ninehub.com site. Finally, I recommend strategies for successful implementation of hybrid use of computer-based Learning Management Systems in L2 tertiary education. Reservations include the needs for providing a reliable hosting service, preventing student cheating, and avoiding teachers improperly coaching students for placement tests. Nevertheless, I suggest that computer-based Internet-hosted L2 aptitude tests have the potential to provide a convenient measure of student progress in developing L2 fluency, achieved as a consequence of the courses attended. Such tests are also likely to offer a more objective and relevant means of teacher- and course-assessment than student evaluations, which tend to confuse entertainment value and teacher popularity (which are hardly the task universities should be concerned with) with academic credibility and pedagogical effectiveness, which, in these times of global warming, pollution and economic recession, are sorely needed.

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