

A System to Manage Grammatical Level Tests in the Context of Language Schools

Antonio Sarasa Cabezuelo, Department of Computer Systems and Programming, Complutense University of Madrid, Madrid, Spain

ABSTRACT

A common problem in schools teaching languages is the preliminary assessment of students' knowledge to assign a skill level in the language that they would like to learn. Normally, level tests consist of an oral test, a written test and a listening test. All these tests can be performed through from a remote location, though the written test is less complicated to perform through correspondence since it generally does not require the presence of an examiner. This article describes how has been automated the performance and management of level tests of the written kind in the specific case of teaching Spanish to foreigners at the University of Zaragoza.

KEYWORDS

E-Learning, Google Drive, Language Schools, PHP, Web Application

1. INTRODUCTION

Most universities have language training services that offer students and staff the opportunity to learn a language. In order to access these studies, it requires the performing of a set of tests (Kumaravadivelu, 1994) that allow the level of knowledge of the language that the student would like to study to be determined. Generally, 3 types of tests are performed (Finocchiaro, 1983). An oral test (McKay, 2002) that measures the ability to understand and be understood by a native person, a comprehension test that measures the ability to understand conversations between native people (Rivers, 1981), and a written test (Hadley, 1993) that measures the mastery of the vocabulary and grammatical constructions in the language. Normally the oral test (Lado, 1961) is performed with a teacher from the school, and a multimedia resource such as a video or a recorded conversation is used in the hearing test (Pinto-Llorente, 2016). The written test (Nuttall, 1996) usually consists of performing exercises such as writing an essay on a proposed theme, rearranging the components of a sentence in a way that the sentence is correct or completing parts of a phrase that are empty with the most appropriate words (Pinto-Llorente, 2014).

There are several ways to automate level testing (Yang, 2009) that can be classified into specific assessment tools for language or general assessment tools (Squires, 1997). The first case includes tools (Voorheis, 2004) that allow only a particular language to be evaluated. Usually these are not free tools and it is necessary to pay for some kind of license. Its main advantage (Gottliebson, 2010) is the specificity with regard to language, and its disadvantages are the inability to reuse with other languages (Pinto-Llorente, 2015) and its minimum capacities of adaptation and configuration (usually, it is software that cannot be modified; its interfaces offer few options for adaptation and do not usually offer user management services). The second case (Bachmann, 2005) is the use of generic assessment

tools that provide the ability to create test with different types of questions (Shohamy, 1988) such as multiple choice, free text, jumbled words. (Abello, 2008). Their main features are: a) They are flexible and adaptable to different contexts (Elbeck, 2014) b) In many cases, they allow the evaluation process to be set (conditional navigation, free navigation.), c) They allow the creation of a repository of questions, and d) It is possible to set the way that the questions are shown (e.g. random presentation of questions and answers). For this type of tools, there are both paid tools and free tools. However, the number of free tools (both online and desktop) is bigger than payment tools. They include, for example forms from Google Drive (Ji, 2015), or QuestionPro tools, thatquiz, testmoz.

A third alternative not contemplated in the previous two is to use the tools offered by an LMS (Learning Management System) such as Moodle for creating tests (Gracia, 2010). This type of tools (Kakasevski, 2008) offers functionality similar to the generic tools for creating tests (Ozkan, 2009) with the advantage of an environment that integrates other services (Garcia-Peñalvo, 2015) such as user management (Garcia-Holgado, 2013), communication tools or management of grading.

In addition, these tools can be divided according to their standardized nature or not. In this sense, there are tools that use standardized formats (Kravtsov, 2008) such as SCORM (Bohl, 2002), IMS QTI (Vogten, 2006) or IMS Simple Sequencing (Shen, 2004) to organize information, the deployment process thereof and the coding of test questions.

This article was inspired by the real case of the teaching of Spanish as a foreign language at the University of Zaragoza. This service, though part of the university, is managed as non-formal studies, so the institutional support with respect to the management and administrative tasks is different, less so than with regulated studies. For example, students from language schools do not receive an official email account at the university, they cannot use the services of the virtual campus, and the university doesn't maintain a record of their activities... Normally, students that want to pursue these studies are outside Spain, and in many cases they would like to know their language level and the course that they will study before coming to Spain. In addition, there are reasons of organization and planning; it would be interesting to know the number of students that there will be in each level with enough time.

Before creating the application described in the article, level testing was performed once students had arrived in Spain, which forced the level tests, their correction and the planning of classes to be carried out manually in a few days. This situation doesn't allow for a good organization of the courses (the reservation of classrooms, the hiring of teachers and the planning of activities). Another problem for this manual system was the storing of student records. Since there is no official support from the University, all information about the original level, the level reached, examinations was handled manually on paper. So, if a student conducted several courses in different time periods, in many cases she did not have access her records, and it was necessary to do the level tests again as previously performed courses were not taken into account.

In this sense, the main needs of the school were to have a system that would allow students to determine their level language online and from a distance. In addition, the system would allow the managing of students' records. In this way, before reaching Spain, students could find out their level and the course to be studied; they could manage their records and the tests done. As well, teachers could track students' progress, and the school could improve the organization and planning of courses because they would know the number of students in each level with more time. Given these needs, two tools were built. The first tool was based on forms from Google Drive and the second tool was developed in the context of a final degree project from the School of Computer Science at the Complutense University of Madrid. The following sections describe the work done. In section 2 the requirements of the first tool are described; Section 3 presents the first tool based on Google Drive; section 4 shows the limits and problems present in the first tool and motivates the need to create a new tool with additional requirements; section 5 describes the second tool implemented. Finally, in section 6 a set of conclusions and possible lines of future work are raised.

15 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/article/a-system-to-manage-grammatical-level-tests-in-the-context-of-language-schools/173724

Related Content

Pattern Synthesis for Nonparametric Pattern Recognition

P. Viswanath, Narasimha M. Murty and Bhatnagar Shalabh (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 1511-1516).

www.irma-international.org/chapter/pattern-synthesis-nonparametric-pattern-recognition/11020

XML-Enabled Association Analysis

Ling Feng (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 2117-2122).

www.irma-international.org/chapter/xml-enabled-association-analysis/11112

Data Mining in Security Applications

Aleksandar Lazarevic (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 479-485).

www.irma-international.org/chapter/data-mining-security-applications/10863

Evaluation of Decision Rules by Qualities for Decision-Making Systems

Ivan Bruha (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 795-801).

www.irma-international.org/chapter/evaluation-decision-rules-qualities-decision/10911

Program Comprehension through Data Mining

Ioannis N. Kouris (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 1603-1609).

www.irma-international.org/chapter/program-comprehension-through-data-mining/11033