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Colloquium

Teachers' interest in a computer EFL university entrance examination

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Introduction

The idea that computer-based language tests save time, can be delivered and rated at lower price, and include tasks that before were costly to deliver (like the speaking section) has been welcomed by many educational boards and high-stake testing administrations (such as ETS or the Cambridge Board of Examinations). Accordingly, the National Ministry of Education has began to consider whether computerising the university entrance examination (Internet Based Prueba de Acceso a la Universidad (IB PAU) for its acronym in Spanish) would bring better language assessments and more information about the students' real competence in foreign languages (FLs) in one of the most significant high-stake FL tests in Spain. To do so, the Ministry of Education funded the Project PAULEX (HUM2007-66479-C02-01/FILO) (2007–2010). The researchers working on the IB PAU feel that one of the most significant factors in implementing such a change is to know whether teachers would be motivated to change the traditional format into a computer-based one and under such conditions (García Laborda, Magal-Royo, de Siqueira Rocha & Álvarez, 2010). The IB PAU is intended to foresee if the test could include new oral tasks, would bring better language assessments and ultimately improve the current teaching methodology (*washback effect*) (García Laborda & Fernández Álvarez, 2010).

In Spain, it is generally assumed by some institutions that teachers in charge of courses leading to computer-based tests need to be specialised in both computers and FL pedagogy. Several studies point that practitioners who use Information and Communications Technology (ICT) in education tend to be more understanding with their implementation (Hruskocy, Ertmer, Johnson & Cennamo, 1997; Lindroth & Bergquist, 2010), but it is necessary to see whether those who do not may also be as accepting. New projects like the one hereby addressed do not only depend on the teachers' capacity to complement their teaching with the use of ICT but also on the potential technology for innovation and the improvement of the limitations of current testing practices (Way & Webb, 2007). The ultimate goal of this research could be observed if teachers involved in implementing the test reform require training in ICT-based FL pedagogy. In that sense, it is necessary first to observe to what degree are teachers currently literate in ICT pedagogy and also their attitudes towards the integration of the IB PAU. The results of this study are especially relevant because of the increasing generalisation of these tests worldwide.

Experimentation

Objectives

Although the general tendency is to associate computer skills with teaching through technology, and because Spain has a large number of FL teachers who reject to implement technology in their classroom, it is necessary to find which computer skills may be more highly associated to the implementation of the new test delivery format.

Methodology

One hundred forty-four high school teachers of English as a FL teaching responded to a 130-item questionnaire about the following: (1) communicative interaction in Second Language (L2), (2) types of questions used in PAU and (3) teachers' computer literacy. In this paper, we will focus on the third component with the aim to see if there are any positive correlations between teachers' attitude towards the IB PAU and their own use of computers. The questions that we used in this paper (Appendix I) included some yes/no questions (items 89–93), 5-point Likert scale items (item 20 and items 89–111), and some open-ended questions, and were analysed using SPSS (Statistical Package for Social Sciences, SPSS Inc., 444 Michigan Ave., Chicago, IL 60611, USA).

Results and discussion

With the aim of checking the variables for any violation of our assumptions, descriptive statistics were first carried out (Table 1).

The data presented in Table 1 reveal that some of the values for kurtosis and skewness do not fall within the ±2 limit. The numbers with values higher or lower than ±2 (items 89, 90 and 93) are marked with an asterisk (*), as they indicate that we do not have a normal distribution.

The high values for kurtosis and skewness, together with the mean scores, suggest that most of the participants have a computer either at home or at work, and that only very few indicated that they do not have a computer or are interested in using it.

Attitudes towards a computer-based university entrance exam

Item 20 asked participants whether they thought a computer-based university entrance examination was feasible. Table 2 shows the answers.

Table 1: Descriptive statistics

	N	*Mean*	*Standard deviation*	*Variance skewness*			*Kurtosis*	
	Statistic	*Statistic*	*Statistic*	*Statistic*	*Statistic*	*Standard error*	*Statistic*	*Standard error*
Item 20	109	2.75	0.818	0.670	–0.234	0.231	–0.411	0.459
Item 89	141	1.20	1.166	1.360	5.743*	0.204	31.425*	0.406
Item 90	141	0.94	0.245	0.060	–3.607*	0.204	11.169*	0.406
Item 91	137	0.15	0.362	0.131	1.946	0.207	1.814	0.411
Item 92	134	0.16	0.372	0.138	1.834	0.209	1.383	0.416
Item 93	128	0.98	0.125	0.016	–7.904*	0.214	61.436*	0.425
Item 94	142	3.96	1.296	1.680	–1.044	0.203	–0.046	0.404
Item 95	142	3.73	1.357	1.843	–0.623	0.203	–1.004	0.404
Item 96	144	2.25	1.254	1.573	0.765	0.202	–0.354	0.401
Item 97	143	4.13	1.215	1.477	–1.367	0.203	0.872	0.403
Item 98	143	1.82	1.214	1.474	1.457	0.203	1.095	0.403
Item 99	143	2.21	1.514	2.294	0.859	0.203	–0.815	0.403
Item 100	144	2.77	1.545	2.388	0.276	0.202	–1.421	0.401
Item 101	125	2.30	1.497	2.242	0.695	0.217	–1.039	0.430
Item 102	129	2.19	1.392	1.939	0.828	0.213	–0.635	0.423
Item 103	130	3.03	1.419	2.015	0.061	0.212	–1.335	0.422
Item 104	130	3.55	1.307	1.707	–0.484	0.212	–0.940	0.422
Item 105	131	2.86	1.626	2.643	0.084	0.212	–1.621	0.420
Item 106	130	4.22	1.220	1.488	–1.489	0.212	1.051	0.422
Item 107	130	2.01	1.321	1.744	1.093	0.212	–0.062	0.422
Item 108	130	2.82	1.470	2.162	0.252	0.212	–1.337	0.422
Item 109	131	2.19	1.436	2.063	0.908	0.212	–0.552	0.420
Item 110	129	2.19	1.404	1.970	0.802	0.213	–0.752	0.423
Item 111	131	2.88	1.441	2.077	0.217	0.212	–1.277	0.420

Table 2: Attitude towards a computer-based University Entrance Examination Frequencies

	Frequency	*%*	*Valid %*	*Cumulative %*
Valid				
Definitely not	7	4.9	4.9	4.9
Maybe not	32	22.2	22.5	27.5
Maybe yes	51	35.4	35.9	63.4
Definitely yes	19	13.2	13.4	76.8
I am not sure	33	22.9	23.2	100.0
Total	142	98.6	100.0	
Missing	2	1.4		
Total	144	100.0		

As it can be observed, almost half of the teachers (49.3%) had a positive attitude towards a computer-based test. A little bit more than a quarter of the participants (27.4%) had a negative attitude, and 23.2% were not sure. These answers somehow reflect teachers' concern towards the change, as it generally happens whenever any new policy mandates teachers to adopt educational reforms.

Factors affecting participants' attitudes

In order to be able to decide whether familiarity with computers influences teachers' attitudes towards a computer-based university entrance exam, we decided to carry out some correlation analyses that would help us describe the strength and direction of the linear relationship between the variables through the use of Spearman rank-order correlation coefficient.

Item 20 plays a central role in this paper, as we will correlate this dependent variable to a series of items, which are grouped based on three criteria: (1) items 89–93 (participants' access to computers), (2) items 94–104 (participants' personal use of computers) and (3) items 105–111 (participants' academic use of computers).

The correlation between item 20 and items 89–93 shows that there is a very weak correlation between having a computer (either at home or work) and supporting the use of computer-based tests for PAU. All the values we obtained are lower than 0.124, which indicate a very small correlation (Pallant, 2005). Because most teachers have a computer at home (97.2%) or at work (91.7%), these two variables do not really interfere in their attitude towards a new English computer test. In reference to the correlation between item 20 and participants' personal use of computers (items 94–104), the analyses revealed that there was a medium correlation with four of these items (item 101: 0.315; item 102: 0.317; item 103: 0.360 and item 104: 0.320). It is important to emphasise that the strength of the correlation is still considered narrow, according to Pallant (2005). However, those correlations appeared to be significant at the 0.01 level. It is interesting that the highest value corresponds to item 103, in which participants had to indicate to what extent they use computers to work with images, pictures and multimedia. This suggests that those teachers who use computers for something different than just checking their email, using word editors or banking online are more in favour of using a computer version of the PAU. Surprisingly, item 96 had only a correlation of 0.216.

Similar results were obtained when item 20 was correlated with items 105–111 to see whether participants' academic use of computers had an effect on their attitude towards a computer-based test. Only item 111 seemed to present a medium correlation with a value of 0.384. This item, like item 103, asked participants whether they used computers to work with images, pictures and multimedia but this time for educational purposes. This value indicates, once again, that teachers

who benefit from manipulating images and multimedia (both for personal and for educational purposes) tend to see the advantages of assessing students with the help of a computer.

Conclusions

Regardless of whether they have a computer and use it or not, participants' positive attitude towards a computer-based test is not influenced by this variable. This can be seen as an optimistic standpoint for the IB PAU implementation, as it has been observed that those who do not have a computer (or do not use it) are not drastically against implementing the new computer-based test.

Practicality can be another factor influencing the results obtained in the survey. Only 15.2% of the participants stated that they use computers to teach their subject, and 22.9% of the teachers indicated that using computers to plan their lessons is somehow important. It is evident that teachers do not reject the idea of having an IB PAU. What needs to be considered is providing teachers with workshops (O'Bryan & Hegelheimer, 2007) that make them aware of the usefulness of technology in the classroom and favour motivation. As we saw before, teachers who are more technology-oriented are also more in favour of the IB PAU. The rest of the teachers, while they do not define themselves as opponents to the integration of computers in testing, are still a little bit reluctant and undecided. One outcome from this paper is that the IB PAU is possible in Spain, but further work is still necessary for its implementation in the near future.

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Appendix 1

Question 20. Do you believe it is possible to implement a computer based P.A.U.?
Question 89. Do you have a computer . . . at home?
Question 90. Do you have a computer . . . in your school or public places?
Question 91. Do you have a computer . . . in your class?
Question 92. Do you have a computer? No, I do not, I just have an email account.
Question 93. Do you have a computer? No and I do not usually use computers.
Question 94. What personal use do you give to computers: search information
Question 95. What personal use do you give to computers: communication purposes
Question 96. What personal use do you give to computers: teaching my subjects
Question 97. What personal use do you give to computers: creating documents
Question 98. What personal use do you give to computers: organizing my lessons
Question 99. What personal use do you give to computers: online banking

Question 100. What personal use do you give to computers: fill in forms
Question 101. What personal use do you give to computers: creating presentations
Question 102. What personal use do you give to computers: other computer applications
Question 103. What personal use do you give to computers: managing pictures and photos
Question 104. What personal use do you give to computers: browsing informative websites
Question 105. What educational use do you give to computers: creating and correcting tests
Question 106. What educational use do you give to computers: creating digital documents
Question 107. What educational use do you give to computers: organizing my teaching
Question 108. What educational use do you give to computers: fill in forms and reports
Question 109. What educational use do you give to computers: creating presentations
Question 110. What educational use do you give to computers: organizing my teaching
Question 111. What educational use do you give to computers: managing other computer programs
Question 112. What educational use do you give to computers: managing pictures and photos