

Foreign Language Pre-Service Teachers' Attitudes Towards Integrated Technology

<https://doi.org/10.3991/ijet.v15i23.18797>

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Abstract—The COVID-19 pandemic worldwide evidenced the need to revise and strengthen the current perspective of the role of technology in non-technology-based classes. The current situation requires the revision of practices and basic knowledge of computer literacy and use. Traditionally, technology in the process of language learning has been considered anecdotal. As a result, many teachers do not have the necessary skills to implement proper technology-supported classes. Being that the case at Universidad de Alcalá (Spain), we looked at the students' needs in integrating a number of different applications in the classroom in order to provide them with additional technological skills. Twenty-two pre-service teachers enrolled in the College of Education prepared a whole package of applications for computer and mobile phones by working cooperatively. This paper looks at their attitudes towards technology learning and implementation. A Likert-scale questionnaire was developed to assess their attitudes. Results indicated that students do not evidence as much interest as expected despite their limited ability to implement the package.

Keywords—Technology; blogs; social media; teacher education; bilingual education

1 Introduction

Developments in every field have been increasing with the innovations brought by technology. Mobile supported applications have taken their place in many areas such as commerce, business, education and industry [30]. The effectiveness of technology-supported education and teaching in the field of education is supported by many studies. Teachers have become aware of their needs to be competent users and creative designers of technology-based activities in the first semester of 2020 when people from most countries in the world remained locked down due to the COVID-19

pandemic. While the effects of this pandemic are to be studied further, there is a necessity to reconsider the role of economics but even more of education and especially educational technology. Some studies have pointed out the interest and positive attitudes of young teachers towards the development and use of certain contents through technology, however, its use still remains anecdotal. These attitudes have led to a discontinuous use of technology in the classroom [1]. While laptops and tablet PCs have taken a significant role in the classroom as sources of information, working tools and internet access, the presence of other technologies such as software for educational purposes have remained very limited. It is true that students today have developed a significant capacity and perceptiveness in the use of applications and platforms but their interest towards the use of educational applications still remains unclear.

In such a context, this paper aims to look at the students' attitudes towards the use of integrative blogs where a number of different tools are combined such as applications, LinkedIn, communication tools, etc. To do so, a questionnaire was designed and delivered to a group of teachers in training at the University of Alcalá at the end of the first semester of the 2019-2020 academic year just before the COVID-19 pandemic.

2 Literature Review

Blogs have been an educational resource for many years [2, 3, 4]. However, this does not necessarily mean that their educational use might not be new for different students [5, 6]. In fact, the term new technologies are totally true since new technologies are always new for the students who begin to use them for the first time [7]. This might not be always around the same age [8, 9]. Many students get the experience to use blogs or e-portfolios at different educational stages whether primary, secondary or higher education. Thus, it is not unusual to begin to use communication tools as late as in higher education [10]. The question is when is the correct time to start to use such tools and, even more important, what their final purpose is. A number of researchers of blogs have looked at the opportunities of using blogs in the classroom and even for the hybrid class [11, 12] but few have looked at their own prospective applicability [13, 14]. Overall, many tend to observe the blogs as a product rather than as a process [15] instead of a means to create educational communities [16] despite the long standing tradition that blogs serve as formative assessment tool [17, 18] especially in writing [19, 20, 21] and reading [22, 23], although [24] also states that this sort of multimedia facilitates the integration of listening learning objects. In general, blogs are considered as a reflection tool [25, 26, 27, 28] for professionals in Language Teaching – and obviously many other fields- [28].

In this given scenario, it was the interest of this research to observe whether after five years of using blogs in the pre-service classroom at Universidad de Alcalá (2014-2019) it was just about the time to close the technical innovation due to the normalization of blogs by higher education students. In order to do so, students should

recognize that blogs do not bring any interesting assets to their teaching and that their use has become normalized in education beyond their use as an e-portfolio. Thus, these were the main research questions for this research:

- a) Do students believe that blogs do not represent an adequate tool to develop their linguistics skills?
- b) Do students consider that blogs are worth to be done in university?
- c) Do they consider that blogs are adequate for their future teaching?

3 Methodology

3.1 Participants and procedure

The sample comprised of twenty-two students from foreign language (English) specialization the College of Education of Universidad de Alcalá at Guadalajara representing about 50% of all the students in such major in the college. The average age was 22.25 (range = 21-25, SD = 2.20). Most students were female (86.4%) due to the fact females are the predominant sex at the College of Education of Universidad de Alcalá and the sample was considered representative of the whole college. Participants completed a questionnaire during class time. Participation was anonymous and voluntary, and data collection followed the Ethical Guidelines applicable to Research with Humans at Universidad de Alcalá. Before completing the questionnaire, participants gave their consent to use these data by using pseudonyms.

3.2 Instruments

The research used a Spanish-language revised version of the Course Blog Attitude Questionnaire (CBAQ) [29]. Participants rated fifteen items on 4-point scales due to the limited sample (four-point Likert-type scale ranging between 1 (e.g., strongly disagrees) and 4 (e.g., strongly agree)) and one more distractor ("I believe this questionnaire is funny"). The questionnaire addressed three subscales: 1) Questions related to previous use and knowledge (questions 1, 2 -blue-); 2) Difficulties in developing and integrating the different sections of the blog and other parts such as the apps, videos, etc.(questions 3, 5, 6, 10, 11, 13, 14 – brown-; and 3) Prospective use in the students' career (questions 4, 7, 8, 9, 12, 15-green-).

Table 1. Descriptive statistics

Question	N	Mean	Median	Standard deviation
I had developed blogs before taking this course	22	2,36	2	1,329
The apps that I have included have been used in the process of the project in class or before it	21	2,76	3	0,889
Creating a blog with online tools (blogger or others) is easy	21	3	3	0,707
I think this work will be useful for my future performance as a teacher	22	3,14	3	0,640
Through the blog, I have learned vocabulary and structures of written English	22	2,91	3	0,684
Through the blog, I have learned about the content developed in it	22	3,36	3	0,581
My blog could be an interesting tool to exchange information	22	3,45	3,5	0,596
The blog can be an interesting tool for my elementary students	22	3,68	4	0,568
The apps I have included would be very useful in the future	22	3,18	3	0,664
Blogs have helped me to work as a team	22	3,45	4	0,671
Our coordination in the project has been good	22	3,50	4	0,859
I think my blog could be used to learn outside of class	22	3,45	3	0,510
Blogs allow better adaptation to teaching	22	3,32	3	0,477
The work with the videos has been interesting	22	3,59	4	0,503
I believe that the use of blogs is appropriate to invert the class (give information to students that there is usually no time to see in class and discuss more)	21	3,33	3	0,577
This survey is a lot of fun	22	2,80	3	0,894

4 Results

4.1 Descriptive statistics

As can be seen, Table 1 offers the central tendencies exposed in ordinal data, and one of the answers that has the most appreciation on the part of the group of participants, is the one that makes mention of how “blogs” are an interesting tool for primary school students, with an average of 3.68 out of 4 as the maximum rating, which means that teachers have a positive attitude about working with new learning strategies. There is a high evaluation of the questions that were asked to know how the work was done with the new tools that enhance the work with the students; among them they stand out as the work with the videos has been interesting for the teachers, answering a 3.59 , this is followed by the good assessment of the coordination that existed in the project, with a rating of 3.50.

In the same way, the answers that refer to whether blogs have helped them to learn outside of class, whether they are considered an interesting tool for students and that if it has allowed them to work in a team, they are highly valued by the participants.,

since it is valued with a 3.50 out of 4, which leads us to infer that blogs are a positive strategy in pedagogical work.

On the other hand, the responses that were least valued by the participants are those that are related to carrying out activities with new strategies, either in the development of blogs before taking the course, as if the apps that the participants have used were used in the process of the project in classes or before it, having a valuation of 2.36 and 2.76 respectively.

Table 2. Score results in the survey

Question	Option 1	Option 2	Option 3	Option 4	Lost
I had developed blogs before taking this course	40,9	13,6	13,6	31,8	
The apps that I have included have been used in the process of the project in class or before it	9,1	22,7	45,5	18,5	4,5
Creating a blog with online tools (blogger or others) is easy		22,7	50	22,7	4,5
I think this work will be useful for my future performance as a teacher		13,6	59,1	27,3	
Through the blog I have learned vocabulary and structures of written English		27,3	54,5	18,2	
Through the blog I have learned about the content developed in it		4,5	54,5	40,9	
My blog could be an interesting tool to exchange information		4,5	45,5	50	
The blog can be an interesting tool for my elementary students		4,5	22,7	72,7	
The apps I have included would be very useful in the future		13,6	54,5	31,8	
Blogs have helped me to work as a team		9,1	36,4	54,5	
Our coordination in the project has been good	4,5	9,1	18,2	68,2	
I think my blog could be used to learn outside of class			54,5	45,5	
Blogs allow better adaptation to teaching			68,2	31,8	
The work with the videos has been interesting			40,9	59,1	
I believe that the use of blogs is appropriate to invert the class (give information to students that there is usually no time to see in class and discuss more)		4,5	54,5	36,4	4,5
This survey is a lot of fun	4,5	31,8	31,8	22,9	9,1

The distribution of the responses was made according to the results of each item and they were marked from 1 to 4 where the participant presents an answer as; 1 disagree, 2 slightly agree, 3 agree and 4 strongly agree.

For question number 1, it can be seen that the response trend has been developed in that 40.9% of the participants disagree with the development of blogs before taking the course, followed by 31.8% who are Accordingly, which means that they had carried out the creation of blogs and 13.6% disagreed. In response 2, which aims to reveal if the apps that were included have been used in the project process in class or before, 45.5% of the participants agree, followed by 22.7% who disagrees. While only 9.7% disagree, in this answer there is a participant who does not respond, equivalent to 4.5% of the total sample.

Regarding 3, 4, 5, 6 and 7 responses, among which option 3 showing that they agree with what was consulted, the same case occurs for option 1, which means that no participant is not according to what is being asked. In the case of questions 6 and 7, we can visualize how the participants consider it relevant that through the blog they have learned about the content developed in it and how blogs could be an interesting tool for exchanging information, since for both questions, the Option 4 has a higher percentage of acceptance, with 40.9% and 50% respectively. In the case of question 8, which aims to reveal if the blog can be an interesting tool for my elementary school students, there is a high assessment from 16 participants who strongly agree with it, corresponding to 72.7 % followed by 22.7% who agree and only 4.5%, that is, a single participant, who disagrees a little. The question about whether the apps that I have included would be very useful in the future, has a positive evaluation from the participants, since 54.5% of the respondents consider that they agree that the apps would be useful in the future, as well as 31.8% who stated that they strongly agree. 13.6% disagree and there are no participants who indicate that they disagree. What happens with the answer to the question that tries to reveal if the blogs have served the participants to work as a team, is that 54.5% indicate that they very much agree with it, followed by 36.4% who stated agree. This means that 90.9% of those surveyed consider that these strategies contribute to teamwork. When asked if coordination in the project has been good, there is more heterogeneity of responses, since 68.2% of the participants agree with it, followed by 18.25 who agree, 9, 1% disagree and only 4.5% disagree with the coordination carried out.

At the time of asking participants about whether their blog could be used to learn outside of class, 54.5% of the answers indicate that they agree with the usefulness it could have outside the classroom, followed by 45.5 % who indicate that they strongly agree with this. This means that the possibility of using them outside of class is highly valued. In the case of the answer that tries to find out if blogs allow for a better adaptation of teaching, there are 68.2% of the participants who consider that they agree with it, followed by the remaining 31.8% who strongly agree, this positively positions blogging as a strategy that helps adapt teaching. When the participants were asked to assess whether the work with videos has been interesting, 59.1% of them stated that they agreed with the statement, followed by 40.9% who agreed. In the same way, when asked to assess whether the use of blogs is adequate to invest the class (give information to students that there is usually no time to see in class and debate more), 54.5% agree, followed by 36.4% who strongly agree, 4.5% who disagree and do not respond.

5 Interpretation and Conclusion

This research was the result of the students' attitudes towards the use of a set of web 2.0 tools embedded in a blog. The main concern was whether it was interesting keeping on the teaching of blogs under the heading of the 2019-20 innovation project "*UAH/EV1136 - Motivación en el aprendizaje de inglés a través de apps y redes sociales*". As a response to the title, it was observed that students had a limited

experience as designers of blogs (question 1) nor had they much previous learning or learning in class with apps and other social media (question 2). In relation to the difficulty and user experience with the blog, students believed the creation was rather adequate and led both to learning the content as well as improving their use of English especially in grammar and vocabulary (question 5). According to their responses blogs also helped them to develop cooperative skills (questions 10 and 11). Finally, the development of their own videos was considered positively.

Our last block of questions, which were most relevant to the research team intended to look at a prospective use of blogs in the classroom of Primary Education. Overall, students were positive but not as much as the research team would have expected. Except question 8, none of the means of the items of this block was higher than 3.5. This may mean that prospective teachers understand the value the possibility to integrate technology (especially blogs, of course) in the Primary classroom, significant doubts of whether students see blogs and the media used in the project as really powerful tools for their future as teachers.

In conclusion, the results shed a positive light in reference to the use of blogs for prospective teachers. Nothing seems to be old-fashioned until it has been experienced in education and, as a consequence, we understand that the teaching of blogs and the inclusion of social tools and apps in web 2.0 is still necessary. Students still rate these tools positively but not as much as the researchers thought it would be. The fact, that blogs have been in use for many years may not be a significant problem while the fact that students are used to read on online blogs may be the reason of little positive “surprise” and thus the fact that blogs and web 2.0 have been totally standardized in education.

6 Acknowledgement

The researchers would like to express their gratitude to the Universidad de Alcalá (Spain) for the support in the granting of the “UAH/EV1136 - Motivación en el aprendizaje de inglés a través de apps y redes sociales” (Motivation in the learning of English through apps and social networking) in the 2019-2020 that unfortunately was not finished due the lock down in Spain (March-July 2020). We would also like to thank Margarita Bakieva for her invaluable support in this and other projects run by the “Research on English Language Teaching: Skills, content, computers and assessment” of Universidad de Alcalá.

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Article submitted 2020-09-21. Resubmitted 2020-09-30. Final acceptance 2020-10-01. Final version published as submitted by the authors.