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How to Learn Professional Competencies via Blogs

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Abstract

How can one encourage the development of professional skills in a university subject? How can one use a blog to improve teaching results? These questions motivated the study presented in this article. It is structured around the following two basic and complementary objectives: 1. Designing and implementing a teaching innovation project to promote the development of certain professional skills, using the blog as a tool for self-reflection and 2. Evaluating the experience and collecting students' comments on the use of the blog in a university context.

In pursuit of the second objective, we used a methodology that combined a questionnaire and content analysis. The results make us reflect on the changes that should be introduced in the design of the learning activities and the provision of feedback to utilise the blog as a tool to promote the development of professional skills.

Keywords: blog, professional competencies, reflection, higher education, feedback

Introduction

There are many reasons for the gradual incorporation of information technology in the university environment, including institutional, commercial or supposed modernity criteria (Osguthorpe and Graham, 2003). In Spanish universities, this fact has also coincided with the process of convergence towards the European higher education area and the proposal to reformulate the curriculum around professional skills.

In this context, many projects have promoted educational innovation. The experience presented in the article forms part of the research project: “The educational assessment of competencies using blogs” (REDICE Project 20101002-04), which was carried out during the 2011/12 academic year in various university teaching contexts in Catalonia. The project promotes students’ self-regulation in their own learning through regular, reflective contributions to blogs to assess competencies.

First, several initial questions must be answered: How can the skills be promoted in the context of a university course? What changes should be introduced into the instructional design? Can the blog be useful? How can the blog be used for it to become a tool for reflection and self-assessment? How should the experience be evaluated? How could evidence of its usefulness be collected?

The aim of learning for competencies in comprehensive training of university students is based on the acquisition and development of skills, attitudes, values and knowledge that can be transferred to various professional and social work situations. It is a personal learning system that combines theory and practice, and it moves away from more traditional systems that are based on memorisation. It involves constant learning and each student’s commitment to plan and manage his or her abilities and knowledge adequately.

In turn, learning for competencies demands a clear methodological change. As Zabalza notes (2008), from this approach, one has to bear in mind questions like the detailed planning of programs, selection and presentation of the subject content, mentoring and support of students, proper and consistent management of learning tasks or self-evaluation and reflection on the process itself.

Bearing in mind these considerations, the blog is an option to consider in the redesign of the subject. As noted by Richardson (2006), blogs “are the beginning of a radically different relationship with the Internet, one that has long-standing implications for educators and students” (p.133).

Therefore, we undertook a review of the literature centred on the use of this technology in the university environment. We noted that what first appeared were theoretical studies on the characteristics and advantages of blogs as a learning tool (Conole & Alevizou, 2010). Second, we noted experiences using the blog as a practice journal or as a class notebook (Chhabra y Sharma, 2001). Third, projects whose main focus was the development of digital competence through the development of electronic portfolios and other tools joined with a personalized learning environment (Buchem y Hamelmann, 2011). Fourth, suggestions of the development of the blog aim at increasing the sense of community and collaboration between teachers and students (Halic, Lee, Paulus y Spence, 2010).

Finally, research promotes the professional competencies, analyzing motivation, participation (Deng y Yuen, 2010) and reflection (Bartholomew, Jones y Glassman, 2012).

It is in this last line where the research we present in this article is situated, in which we seek to use blogs as a tool for learning and reflection to gain certain professional competencies.

Context of the study

The experience developed within the course Educational Reflection and Innovation, belonging to the third year of the Master's Degree of Early Childhood Education.

This course aimed to train students in the development of five professional competencies:

- Autonomy in learning
- Reflection on the learning process
- Analysis of and reflection on the functioning of the Early Childhood Education centres
- Analysis of and reflection on the teaching-learning processes
- Reflection on improving their practices

Given that the experience was designed for a large group (102 students), we decided:

- Blog modality: individual.
- The slogan of the blog: learning environment to record the activities and reflections.
- Activities: linked to the training that enhances the acquisition of skills.
- Feedback: contributed by teachers on two occasions, it consisted of brief comments about the achievements and shortcomings of the student.
- Evaluation of the course: the blog is evaluated using a rubric. This evaluation represents 40% of the final grade for the course.

The students were offered an initial session to clarify issues related to the opening and management of the tool, while we gave them diverse manuals and tutorials to facilitate this work.

The following hypotheses were taken into consideration in the design:

- Creating a blog can be a satisfactory and useful learning experience for the students.

- The use of labels can facilitate the process of identification of professional competencies.
- Feedback can have a positive impact on the process of self-regulation of learning.

Methodology

The aim of the study was to assess the implementation of this innovation and, in turn, collect empirical samples on using the blog in the university context. To do this we suggested the use of a mixed methodology, collecting students' comments (through a questionnaire) and qualitative (from content analysis).

Participants

As noted above, the study population consisted entirely of students enrolled in the course of Educational Reflection and Innovation, a total of 102 students.

The sample size varied depending on the instrument used: 82 students responded to the questionnaire (80.39%), which is highly statistically significant and meaningful.

In contrast, only 40 students wrote a final entry relating to the assessment of the experience, representing 39.21% of the population. The content analysis of these entries allowed us to collect qualitative evidence on the views, comments and reflections demonstrated by the students, enriching the information collected in the questionnaire.

Data: collection and analysis

The primary data for this study consisted of an end-of-semester questionnaire and the students' post messages and comments on the blog.

The questionnaire was piloted with a small group of students to ensure that the statements were understandable and meaningful.

The end-of-course questionnaire was given to all the students to gather their opinions about blogging following their experience with it and the learning of competencies. The questionnaire was administered by the course teachers, and the students were guaranteed anonymity in their responses.

This questionnaire includes 15 questions that are rated on a Likert scale from 0 to 10 (0 represents very deficient and 10 excellent). There was also a space provided for comments on each of the items. The areas assessed through the questionnaire were related to:

- Technical aspects of the tool;
- Skills related to the learning of competencies;
- The feedback provided by the teachers and Pedagogical issues.

The paper presents the results of the study participants' assessments in relation to the following:

- Usefulness of the blog for the acquisition of professional competencies.
- The use of labels in the process of identifying the competencies.
- Usefulness of the feedback on the self-regulated learning process.
- Evaluation of the experience: satisfaction in the selection of competencies addressed.
- Evaluation of the experience: satisfaction with the use of a blog.
- Evaluation of the experience: general satisfaction.

Analysis of basic descriptive statistics of the collected data was conducted using SPSS 21.0. (Statistical Package for the Social Sciences)

Moreover, we used content analysis. We asked the students to voluntarily make a blog post qualitatively assessing the course and its contribution to the development of professional competencies. Analysis of these posts was made with the use of the qualitative analysis software N-Vivo.

Results

The statistics for each variable are shown in Table 1.

Table 1. The statistics of each variable

| | Range | Mean | | Std. Devi- ation | Variance |
|---|-----------|-----------|------------|---------------------|-----------|
| | Statistic | Statistic | Std. Error | Statistic | Statistic |
| The usefulness of the blog and the acquisition of professional competencies | 10 | 7.52 | .182 | 1.650 | 2.722 |
| The use of labels in the process of identifying the competencies | 7 | 7.88 | .154 | 1.391 | 1.936 |
| The use of feedback in the process of auto-regulation of the learning process | 7 | 6.90 | .171 | 1.592 | 2.536 |

| | Range | Mean | | Std. Devi- ation | Variance |
|--|-----------|-----------|------------|---------------------|-----------|
| | Statistic | Statistic | Std. Error | Statistic | Statistic |
| Satisfaction with the selection of com- petencies worked on | 10 | 8.34 | .159 | 1.442 | 2.079 |
| Satisfaction with the use of the blog | 5 | 8.11 | .133 | 1.207 | 1.457 |
| General satisfaction | 5 | 7.44 | .119 | 1.078 | 1.163 |
| Valid N (listwise) | | | 82 | | |

A more detailed examination of each of the variables is presented below.

The usefulness of the blog and the acquisition of professional competencies

The collected data show a satisfactory evaluation by the students and are consistent with other studies in the university that argue that creating a blog can be a satisfying learning experience and useful for students (Bartholomew, 2008).

However, at the beginning of the course, the blog host provoked reluctance among the students. From our point of view, university students have some control over social tools but are not familiar with the blog as a learning tool.

Once over these initial fears and insecurities, the study participants positively valued the blog as a tool for the acquisition of competencies.

“At the start, we were ‘challenged’ to make a blog, which many of us didn’t even know how to do, but with time, a little effort and with the help of the teachers, we were able to develop our first blog about the class. Personally, until I got into a routine with the blog I hadn’t been familiar with it, but after doing a few entries and seeing how it worked, it was very easy to use in my day-to-day routine. The blog has been a totally new experience for me and mainly useful as a learning tool for the class. Never since I started my career have we worked that way, and I think it has been very beneficial in that we have learned to reflect on and exchange aspects of the class with the other students” (S41).

The use of labels in the process of identifying the competencies

As previously mentioned, the use of labels arose from the selected competencies in class. As discussed in the previous section, the students were encouraged to

label their blog entries to increase their awareness of which competencies they were working on.

The qualitative analysis of the blogs provided the following evidence on this variable:

“Labelling may sound easy, but for me it wasn’t, it was difficult for me to find the way to reach this reflection. Now I wonder: what has this reflection done for me? And I can say that without this process I would never have come to understand that it is one more way to become aware of what one has done and how we can improve as professionals. Thanks to this class and this labelling process, I feel more professional; I know I am capable of rebuilding my professional knowledge” (S59).

The use of feedback in the process of auto-regulation of the learning process

Although the scores are lower than those of the previous items, the students assigned scores denoting average satisfaction with the usefulness of feedback.

Rodgers (2006) argues that one should not confuse feedback with evaluation. It should be considered as an opportunity to understand the context in which the professional moves, providing aid to improve. In the presented case study, the intention of the feedback was to aid in the identification of strong and weak points, facilitate the assessment of the performance of the competencies and influence motivation.

Due to the large number of students who participated in the experience, the teachers only provided feedback on two occasions, which is reflected in the students’ scores for this item. However, the opinions expressed in the qualitative analysis of this item recognise its importance:

“The feedback received helped us to be aware of the competencies that we worked on to a major and minor extent, this was essential in order to identify our strengths and weaknesses and thus be able to continuously improve our teaching practice” (S27).

To mention, finally, that although the feedback was raised within a formative evaluation proposal, it continued to be anchored to the professor. The students were invited to participate on two occasions, reviewing the blogs of some fellow students, but beyond this activity, a sufficient dynamic was not possible to be created so that the feedback by the students would have significant weight. So says

one of the participants: “I wish I had been able to count on more comments and opinions from my classmates” (S11).

Evaluation of the experience: satisfaction in the selection of competencies addressed

The assigned scores for this research question are high. The students consider the skills addressed in the experience to be very important for their degree and professional training, as shown in the descriptive statistics.

Additionally, some students state that it was the first time during their degree studies that they worked explicitly on these competencies. The experience increased their awareness of their strong points and weak points to continue working on in the future:

“Something that I found difficult was to work from the competencies because it’s a new aspect we hadn’t seen throughout our career. Little by little, we were working on ours, incorporating them into all of our reflections. Now I’m sure that I’ve got many more competencies than I initially thought, although there will always be a few that I don’t take on perfectly” (S15).

Evaluation of the experience: satisfaction with the use of the blog

This item allows us to determine whether, and to what extent, the students considered the development of the blog useful. The results of the statistical data analysis are as follows: mean 8.11, standard error of the average 0.133, standard deviation 1.207 and variance 1.457.

As noted, the students show high regard for the value of the experience for their learning processes. Most responses are placed in the rating of 8 and 9, followed by the rating of 10.

Moreover, the qualitative analysis complements previous data:

“Not only have we been able to relate the theoretical knowledge that they have transmitted to us throughout the last few years, but what’s more, by the reflections proposed in class, we have been able to become aware of the learning we have achieved, the processes followed, the evolution and progress we have made, and what it has entailed for our learning and training as future teachers. So, I think the reflection class and the

blog have brought essential and valuable tools to the learning process we have lived and experienced throughout the practices during these last few months” (S4).

Evaluation of the experience: general satisfaction

The high scores for this item are also reflected in the qualitative data, which show the students’ overall satisfaction with the experience:

“I’ve learned, I’ve shared, I’ve enjoyed the concept of the blog, I’ve come to know myself a little better, I’ve learned other ways to work or better said, to enjoy the experience of education, I’ve shared good moments with my friends. And therefore... the result has been positive” (S4).

“I’m grateful for this work, now I see the advantage. Having a blog has given many people the opportunity to know about my experience, to see what I was doing and how I did it... Some activities have helped me more than others, but put together everything has been the fruit of work done week after week” (S7).

Discussion of the results and conclusions

As the study shows, the use of a blog can facilitate the learning of competencies. This is reflected in the scores on the questionnaire items. The students give high scores to the selection of competencies in the experience, they state that it is the first time they have worked on them in a clear and explicit manner, they are satisfied with the process and they claim to have experienced some progress in the domain of competence.

Fessakis, Tatsis and Dimitracopoulou (2008) compare blogs with other social software applications for the support of learning. They clarify the advantages of blogging compared to the basic features of simple HTML pages, online forums, wikis, Content Management Systems or Learning Management Systems.

In agreement with this and other studies (Tekinarslan (2008), Hernández-Ramos (2004) William and Jacobs (2004)), we consider blogging to be the most useful tool to encourage reflection and awareness in the learning process of the established competencies. The students expressed the same view, confirming that the

experience was meaningful to their own processes of learning the professional competencies.

However, as Cano noted (2012), there are no good or bad technologies. Rather, their effectiveness lies in consistency with the objectives and proposed academic purposes as well as the adaptation of these technologies to the context and to the results of pursued learning.

The blog allowed us to present a typology of critical-reflective activities to the students. This overcame the writing code and offered the students the possibility to expand their languages, introducing photography, video or podcasts as communicative elements.

Moreover, the use of labels and their relationship with competency indicators introduced valuable elements of met reflection. The act of labelling the competencies addressed in each blog entry facilitates awareness thereto, the personalisation of the learning process and organisational ability. In this sense, utilizing the professional competencies (as well as the set of indicators that illustrate and detail each competency) as a list of labels was a great success. This approach helped the students to identify and reflect on the learning process that they are developing around the professional competencies.

In a similar study (Churchill, 2011), data showed that the participating students agreed that blogging facilitated and contributed to their learning (83%). The students agreed that due to the use of blogs, the facilitator appeared to be more involved in their learning (92%). Additionally, the students appeared to agree that compared to other courses, they were learning much more (79%).

The platform used in the experience allowed us to constantly visualise the competencies that the students selected, the extent to which they were working on some over others, how they identified them and the errors that they made. As an example, we detected some recurring errors: inappropriate use of labels, incorrect identification of learning actions and activities or merely descriptive argument of the labels used. This basic information allowed us to provide feedback for training purposes. The feedback should serve to confirm what is known and done well; adapt and adjust well the known; diagnose errors and shortcomings; correct prior beliefs or incorrect knowledge; add information to the known and restructure schemes and concepts with new information.

Although the results are not fully satisfactory, through the experience we raised the need for increased information about the feedback the students are going to receive: criteria, rubrics, time, type and frequency. Also, the study presents a clear limitation related to the levels of interaction. Our project did not pay all the necessary attention to all the connections and associations that

the students could have made that would have allowed the enrichment of the individual productions.

Other limits identified relate undoubtedly to the research techniques used or the low control of variables that can affect the development of the blogs (participants' prior knowledge, skills in the use of technology, writing strategies and met cognition...).

In sum, the experience was very satisfactory, as it allowed the students to test a reflective learning environment, and the teachers were able to observe how the students became aware of their professional competencies over the course of the semester. However, in future research it would be interesting to evaluate what the blog contributes to the students, collecting their perspective and identifying the benefits of the introduced innovation. It would also be useful to collect the voice of the teachers in terms of the benefits and difficulties of the experience in their professional roles (workload, changing conceptions, electronic tutoring strategies...).

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