Development and Production of Content for Higher Education; Proposal for an Electronic Portfolio

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Abstract – A proposal for the development and implementation of an electronic portfolio faculty model from the conception of it as a reasoned theoretical work and collection of evidence that show the teaching work is presented in this paper. The proposal for the purpose of training teachers to develop their own portfolios is described. Teaching a workshop that addresses the core competencies is proposed: required for reflection of teaching activities, the construction of teaching sequences and the use of Information and Communication Technologies for education. The evidence on teacher reflection is recovered through work in forums, workshop activities and the development of personal portfolios of university teachers, while the use of Information Technologies and Communication will be raised by the professional proposed the delivery of the workshop.

Keywords – Electronic Portfolio, Teaching Skills, ICT, Higher Education, Content.

I. INTRODUCTION

The electronic portfolio model arises as a research project on this strategy and as a teacher training action whose purpose is to develop self-analysis and reflection on the didactic work of teachers for its improvement.

The implementation of this proposal will have the participation of 25 teachers from the Faculty of Accounting and Administration, Campus San Juan del Rio of the Autonomous University of Queretaro, within the framework of this model and in order to respond to current needs and future challenges of higher education in our country.

This project was developed from the course "Design and evaluation of content in virtual environments", and as a follow-up to said course the need to implement a model of electronic portfolios of teachers in training or service.

This work is made up of four parts: the theoretical aspect of the electronic portfolio, the general description of the model, the specification of the training workshop from the construction of the teaching portfolios and the conclusions of the research progress.

II. LITERARY REVIEW

A. *New Roles for Teachers and Students*

In the context of a modality influenced by a virtual framework, Garcia Aretio (2009) can be mentioned, who stops at the new roles that arise for both the teacher and the student. On one hand, the teacher becomes a mediator, a guide, between the student and the content to be developed. On the other hand, the student who actively controls these resources, since he must actively manipulate the information, in such a way that he is able to organize it and turn it into knowledge to apply it in the different areas in which he operates.

Participate in individualized learning experiences, based on his interests, skills, knowledge, and goals. Access

collaborative learning groups, which allow him to work with others to achieve common goals. He faces tasks of solving emerging problems, since it is not about transmitting established cultural elements, but about learning to face his future.

For all this to happen, the student must gradually acquire and exercise a series of basic competencies that enable the action of "studying" described by Fenstermacher (1999). Thus, it is to be assumed that in these new educational settings the students will take responsibility for their learning, will regularly enter the virtual environment and will follow the different proposals on a regular basis, actively participating in the programmed individual and collaborative instances, both face-to-face and virtual. It is expected that students will achieve the characteristics proposed by Borges (2004) for good students in virtual environments: interrelate the material with their professional activity, properly organize their time, properly handle ambiguities and uncertainties, build their own knowledge from of the study material and in relation to their classmates and teacher, show motivation and self-discipline, use the appropriate channels to request help, assist their classmates, have a proactive attitude, be autonomous, and communicate with their teacher in case of any inconvenience or doubt. On the other hand, face-to-face encounters will be enriched by these characteristics, and will generate stronger ties, thus configuring true learning communities, definitively banishing that old, somewhat prejudiced belief that the lack of personal contact typical of distance modalities depersonalizes and weakens the learning process.

The new role of the teacher and the student requires a rethinking in the context of the activities of the face-to-face instances. These should not continue to become the typical master class, today "modernized" through the use of the popular "PowerPoint" presentations. Contrary, the face-to-face moment should be considered the ideal for, by example:

Present the general idea underlying the topic to be developed. Encourage students so that motivation guides them through the learning process. Present the fundamental elements of the topic accurately. In this sense, the use of concept maps is extremely useful. Suggest core concepts that students should be careful about. Do group tutoring. Present devices, software, examples, experiences, but always in a short period of time and preferably in small groups.

B. *Teacher Training at the University Level*

The proposal of an electronic portfolio will allow the face-to-face and the virtual to intermingle, most of the students who today are integrated into the educational level are naturally immersed in this continuum. Now, are university teachers prepared for this new reality? In many cases, trainings have been carried out, and it also depends on a large number of factors, among which a strong resistance to the use of technology in the classroom, unrelated to the specific nature of each career, and as a complement to the activity outside the classroom. It is even worth asking how is the training of future teachers of the higher education level. It is essential to start reflecting and dealing with these issues, especially in the field of training of trainers.

One of the central actions that must begin to be carried out at the university level, and in the framework of teacher training in particular, refers to the implementation of the virtual modality with the clear objective of knowing it, experiencing it, living it and being able to transfer it. But for this to become a reality, it is essential that teachers know and experience tools such as those mentioned.

With the clear objective of presenting university - level teachers with all the resources currently available, it is

proposed to present a workshop in which the tools mentioned here and many more resources related to Web 2.0 and the Internet are presented. The call will be open to the entire teaching community of the Faculty of Accounting and Administration, with a quota of 25 teachers for the first year, with the clear objective of generating inter-disciplinary work groups.

For most of the participating teachers it will be the first approach to these tools, and the course will allow them to know them and at the same time experience them in their role as students. This experience will be highly satisfactory, and the teachers themselves mention as significant issues related to Web 2.0, collaborative work tools, tools for publishing productions in different digital formats, and the use of discussion forums.

C. *Definition of Portfolios*

The design and development of the portfolio is, in the words of Lee Shulman (2003), a theoretical act, in the understanding that its construction implies holding a position against the act of teaching-learning, the selection of evidence and reflection after its execution, derived from a clear idea about the work of the teacher, the student, the approach to the contents and their evaluation. The portfolio is a "broad metaphor that comes to life when we begin to formulate the theoretical orientation for teaching that is most valuable to us" (Lee Shulman, 2003: 46).

According to Barbera (2006), Moran (2006), Arbezu and Argumedo (2010), Brubacher, Case and Reagan (2005) the teaching portfolio is conceived as a structured collection of evidence made by teachers according to a period of time and purpose determined; product of individual and collective reflection on their own practice enriched by collaboration, which tells the story of their efforts, their progress and achievements in a specific area of the lived curriculum and involves a change in behavior, allows to recognize the categories of knowledge, an ethical training and make rational decisions on a solid basis of knowledge.

The use of the portfolio promotes reflection as deliberation (Dewey, 1989) and as knowledge in action (Shon, 1992) of teaching work, whose practice is "complex, unstable, uncertain and conflictive" (Lyons, 2003: 148). The reflective process of its construction involves:

The definition of the knowledge, skills and attitudes to be developed in the various portfolio entries, the criteria for the selection of evidence, the resources and parameters for its assessment and self-reflection, the promotion of skills for the selection, classification and presentation of valuable information, as well as for linking a philosophy of education with its implementation.

The collaborative work of the entries that compose it by sharing progress and results, since peer comments are also a source of creativity and information (Teitel, Ricci & Coogan, 2003).

As a learning and teaching tool, portfolios help their authors feel like owners of knowledge and exercise control over the content, purpose and construction process of this tool, and with this, a greater motivation towards self-regulation and continuous training.

The e-portfolio constitutes a space where the teacher shows his work and products obtained, exercises his creativity, increases his self-esteem and uses internet resources habitually used for socialization (Barret, 2004).

III. METHODOLOGY

It starts from a global vision on the competences of the didactic work that considers the intentional, cognitive

and contextual aspect. Perrenaud (2007) considers these competences as the capacities to mobilize cognitive resources (such as knowledge, skills, attitudes and thinking patterns) by the teacher to face a specific type of problematic teaching situation with adjusted actions for its solution.

The construction, analysis and evaluation of the teaching portfolio is proposed through the interrelated development of:

1. Competences related to the development of a didactic sequence: it deals with the elaboration of a sequence that manages to be meaningful and constructive of learning and that starts from a reflective process (of self-knowledge) of the teaching practice. Therefore, it includes the preliminary design phase and its implementation.

It includes the specific and interrelated competences: (a) propose learning objectives linked to organized content from the discipline and profession, (b) construct and plan the teaching strategy to carry out a didactic sequence and (c) evaluate the students in learning situations according to a formative approach.

2. Competences related to the reflection of the teaching practice: the teaching reflection is a self-training renovating practice that deals with the teacher's ability to self-evaluate their own action by critically determining progress, limitations and absences in the development of their educational function. It includes, on one hand, the analysis of the experiential knowledge before, during and after the didactic work has been carried out; on the other, to be a mobilizing means for the implementation of changes and decision-making about the teaching work itself.

It encompasses specific and interrelated competencies: (a) awareness of oneself and the process, (b) critical communication of teaching work, and (c) orientation of performance towards educational goals.

3. Competences related to the management of Information and Communication Technologies (ICT): it deals with the ability to use these technologies as educational tools that favor the constructive character of knowledge, the significance of learning and are integral to the teacher's didactic work.

The educational use implies not only technical management but also the application of conceptual and methodological tools of knowledge (disciplinary and thinking skills) the attitude of openness and disposition towards technological tools, which give space to the creativity of teachers and a critical stance of its role for a processual conception of learning and teaching.

It encompasses the specific and interrelated competences: (a) use of document editing programs, (b) communicate remotely through telematics and (c) use of multimedia instruments in teaching.

IV. RESULTS

1. Development of the teaching portfolio: proposal for a workshop: for the implementation of the model, three phases will be followed: in the first place, the invitation and informative talk will be made with interested teachers who will take the workshop, the sessions will be designed and the materials for it will be developed and they will be implemented in the teaching-learning platform; the second phase will be development with the teaching of the workshop and construction of the portfolio and in the last phase the closing will be carried out, consisting of the sharing of the prepared portfolios, as well as the evaluation of the construction process.

The purpose of the teacher training workshop is to provide information about work by competencies, didactic strategies, the use of ICT in higher education and fundamentally to accompany teachers in the process of reflection on professional practice, thus considering Barrett's vision (2004) on the portfolio, as a mirror, story and map.

2. Workshop on teaching electronic portfolio: it is intended that teachers improve their abilities to reflect on their teaching practice by observing their work in the classroom, solving problems and expressing their theoretical position on teaching and learning. In a second moment, the teachers, based on their own experience and the incorporation of new strategies, will propose the development of a didactic sequence in any of the subjects they currently teach. Finally, throughout the workshop, teachers will develop skills for the use of information and communication technologies applied to education.

3. Workshop organization: the workshop will last 30 hours, given the availability of the teachers, a mixed modality was proposed in which the teachers will attend face-to-face sessions during the process and carry out the work at a distance through a model teaching-learning platform.

4. Analysis case in individual format: regarding the evaluation of the workshop, it is conceived as a contextualized, intentional and oriented action to make decisions for change and as a process focused on the intellectual, social and ethical growth of those involved. Thus, it will be carried out throughout the process supported by three dimensions: permanent self-evaluation of the teacher himself, peer evaluation as a resource to improve, that is, the participants will evaluate the scope to set new goals, identify errors, omissions and areas of opportunity to rearrange information, processes and expected results and a final evaluation in which teachers will analyze the entire process experienced in the construction of their portfolio.

V. CONCLUSIONS

Traditionalist and constructivist models continue to be used in current educational centers and, in order to teach knowledge under any pedagogical model, ICT offer a means to bring this knowledge closer to students as well as tools for the development of collaborative work.

The training proposal for the construction of teaching electronic portfolios has been novel in the context of the University, since it puts the teacher at the center of the action not only from his didactics, but from his conception of the profession and the teaching-learning process, as well as ethical and social implications.

Regarding the design of the distance learning environment, the platform is a very friendly tool for the teachers participating in the workshop, it will allow the easy handling of the different applications, thereby minimizing the impact of the ICT management barrier as one of the limitations for building e-portfolios.

The implementation of the mixed modality for the delivery of the workshop will facilitate, on one hand, access to the use of ICT in the teaching-learning process among teachers, and on the other, it will allow the integration of a greater number of teachers, since the limitation of space-time is solved in an alternative way.

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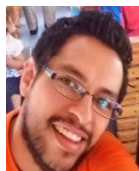
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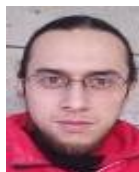
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