The only CONSTANT is CHANGE: training of trainers "online".

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Abstract

Proposal for the development of a professionalization project (diploma), specialization and master's degree in the area of "innovation in higher education" based on learning and knowledge technologies (LKT). This project seeks to fill a gap in teacher training for the design of online modules, totally virtual, effective, active and of quality, and not face-to-face teaching, at a distance by video conferences, based on the ethics of a teacher who really wants to grow in their learning. It consists of three phases: basic, intermediate and advanced. The basic phase will prepare a facilitator of online courses capable of guiding participants during learning; the intermediate phase prepares teachers for the design of virtual events, and the advanced phase trains teaching professionals for research.

Keywords: *Innovation, technologies, learning, online, platforms.*

INTRODUCTION

A real change in teaching and especially in online teaching-learning processes is impossible to achieve with one or two short courses of forty hours each, as several "Ibero-American" institutions are trying to do. It can only be achieved, as an example, with a professionalisation similar in quality to that of the University of Wisconsin, Madison, with a duration of one year, with a proposal to offer a 24-month course.

INITIAL PROJECT DATA

Name of the project: Online training of trainers
Deadline for implementation
Approximately twelve (12) months for the first two stages or phases; the third phase is estimated at another twelve (12) months, but will depend on the programme and subjects to be developed.
Total amount (funded and own funds) $5,000 for each month:
$3,000 funded and
$2,000 own contribution, for a total of $120,000.

PROJECT BACKGROUND AND JUSTIFICATION

Due to the fundamental importance of Learning and Knowledge Technologies (TAC²) as a strategic element for the development of the Ecuadorian education sector and the Region, and therefore the need to overcome the current situation of inequality in the access and effective use of these, the following programme of Professionalisation, Specialisation and Master's Degree for Higher Education is proposed in: **"Learning and Knowledge Technologies in support of Higher**

Education" with the possibility of providing teaching services and coordinating it with the emphasis on technologies in exclusive support of education. We usually observe proposals in educational organisations of a couple of courses that we consider to be totally insufficient, with designs of little teacher-driven interaction. Few academic institutions, such as the University of Wisconsin (Madison), offer programmes of at least seven (7) courses of approximately four weeks each.

The programme will be offered entirely "online" (networked) via the Internet with all the technological resources available to be implemented on one of the platforms of the institution offering it, in order to generate synchronous and especially asynchronous interactions.

There are three programmes (phases) in this proposal:

- BASIC: Aimed at university professors and other actors to obtain a "*diploma or certificate*" as a **Professional** in the facilitation of online courses.
- INTERMEDIATE: Aimed at completing a *specialisation* in "Virtual Andragogy" including quality design and

implementation of online courses.

- ADVANCED: Towards a *Master's degree* in "Online Training of Trainers" oriented towards research and implementation of macro projects.

OBJECTIVES

General **Objective**

Our aim is to promote the complete training of teachers through the incorporation of new technologies in the communication, teaching, research and training process. In this sense, we want to train highly qualified teaching professionals who are able to:

provide innovative solutions to communication and learning problems, creatively using (planning, experimenting and executing) the new Learning and Knowledge Technologies (LKT) with heuristic and procedural skills, enabling them to apply the theoretical foundations to the analysis of educational problems (technology transfer) with appropriate research methods.

Specific Objectives

Although the general objective is implicit in the graduate profile, it is worth specifying that the graduate should be able to:

1. To foster innovative virtual communication processes;
2. Reflectively design, implement and evaluate online educational anddistance learning events and programmes;
3. Apply new ICT to everyday teaching-learning processes, based onresearch and experimentation;
4. Apply appropriate methodologies to their face-to-face, blended and onlineteaching practices;
5. To carry out applied and innovative research in the area, with creative andnovel approaches.
6. Analyse educational-communication contexts from a technological andpedagogical perspective;
7. Coordinate and develop interdisciplinary activities that consider social andcultural processes vis-à-vis technology;
8. Reflectively design, implement and evaluate distance, non-face-to-faceeducation and training plans and systems;
9. Design, implement and evaluate complete online distance education systems in administration, student services, content, teaching, amongothers.

IMPLEMENTATION METHODOLOGY

The expected results will be achieved through the following programme, at least thefirst two phases.

Online training of trainers programme (subjects and credits)
BASIC (Diploma)

Subjects	Credits	Hours
Distance Education	2	20
Online e-learning	2	20
Group online communication processes	3	30
Systemic instructional design	3	30
Techniques for online communication (with Lab.)	6	60
Individual project	2	20
TOTAL:	18	180

INTERMEDIATE (Specialisation)

Subjects	Credits	Hours
Globalisation in a Networked Society	2	20
Fundamentals of statistics	2	20
Online evaluation strategies	2	20
Technologies for distance learning	2	20
Distance services for students	2	20
An introductory adventure to HTML	3	30
Proposal for an applied degree project	3	30
TOTAL:	14	170

ADVANCED (Master)

Subjects	Credits	Hours
1. Artificial Intelligence	4	40
2. Strategies of political appropriation and social uses ofNICTs	4	40
3. Research Methodology	4	40
4. Evaluation Systems	4	40
5,6,7. Electives (3)	12	120
8. Theses	4	40
	TOTAL: 32	320

TOTAL of the three phases: 67 credits, 670 hours

TENTATIVE BUDGET AND TIMETABLE

Considering the phases of this funding programme, a possible budget is presentedbelow:

Item	Concept	Quantity /Units	Unit Cost US$	Total Cost US$
Human Resources	Content Development	20	2000	40.000
Technical Travel	none	0	0	0
Equipment and Software	Storage on dedicated virtual servers	36 months	200	7.200
Outreach Products	Marketing	24 months	100	2.400
Bibliographic Resources	Digital	36	300	10.800

Materials and Supplies	Design of multimedia materials	20	1.000	20.000
Transfer of Results	Dosing on the Platform	20	1.000	20.000
Intangible assets	various	36 months	545	19.620

TOTAL = 120.020

ACTIVITY	1st-6th Month 1st Phase	-12th Month 2nd Phase	13th-20th Month 3rd Phase	Months21°-36
Content Development				
Server storage				
Course promotion				
Miscellaneous and Bibliographic Resources				
Design of multimedia materials				
Dosage and Systemic Instructional Design on the Platform				

EXPECTED RESULTS AND IMPACT

We hope to prepare the various participants to be able to:

- To promote teaching knowledge with technological support in the social, technical and scientific fields, mainly through electronic media, modern online communication, multimedia and the Internet.
- To prepare specialist teachers to advise, promote and develop online education projects, as well as distance education projects.
- To contribute to the expansion of virtual education through advanced Internet solutions and state-of-the-art information technology.
- Contribute with research in the following areas: Methodology, Andragogy and Virtual Pedagogy, Knowledge Environments using ICT, Instructional Design for technologically supported environments, Internet Assessments and multimedia environments, Learning Theories applied to the Internet through ICT,

Comparative studies between "face-to-face" implementations (oral model) and "online" (reading-writing model), among other variants.

Possible lines of research:

1. Effects of CT on reading skills.
2. Differences between "on-line" and other modalities.
3. Needs of online learners.
4. Measurements.
5. Effective course creation parameters.
6. Systemic Instructional Design.
7. Educational models.
8. Student services (admissions, orientation, technological support, registration and control, information...).
9. Group work for the production of online multimedia materials.
10. Evaluation (materials, students, teachers) qualitative and quantitative.
11. Copyright.
12. Online (virtual) events
13. CAT tools for educational uses.
14. Teaching: Practices, Skills and Strategies (forums, blogs, wiki, simulations, problem-solving, etc.)
15. Interactivity, interactions, cooperation, group work, etc.
16. Added values.
17. Asynchronicity versus Synchronicity
18. Resources: materials, video, laboratory, WWW and other open resources.
19. Open source, free software, etc.
20. Content and object management.
21. Pedagogical models.
22. Access, equality and the digital divide.
23. Transitions to the new paradigm: students and teachers
24. Low and High Tech technologies
25. "Offline" and "online" tools.
26. Andragogy.
27. Knowledge and learning communities and networks.
28. Digital facilitation.
29. Knowledge structures: content, cognitive, emotional, among others, and their relationships.
30. New identities on the Internet.
31. Shallow" versus "deep" learning on "e-L" platforms.

DISSEMINATION AND TRANSFER OF RESULTS PLAN

In this section there is not much to explain, it would simply be the means of communication used by universities, mostly digital media and social networks. We have observed that several higher education institutions have a very effective dissemination plan.

ETHICS

Ethics is often left aside, not because it is unimportant, but because it is assumed to be already known, and normally we think of ethics as applied to the student; well, no, we are absolutely wrong; ethics must also be seen through the lens of the teacher. Of course, students must be respectful of their classmates and their teachers and professors, but teachers also have obligations. Which ones? In addition to being respectful of their students and a truly human being, they must prepare themselves and continually advance in

educational theories, pedagogy, didactic techniques and especially in the all-important methods of evaluation. It is not enough to apply inefficient summative true/false, multiple-choice or fill-in-the-blank assessments, among others, which can be useful for students to monitor their own progress. The teacher must not forget formative assessments, which do verify learning and allow the learner to advance in his or her own real learning. What? application of projects, problem solving, individual and group work in teams, development of concepts based on experience, description of experiences, laboratory, among many others.

Teachers, let's be creative with active and participatory lessons!

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