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Cooperation for institutional strengthening: shared knowledge in the quest for improved teaching

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Abstract

This article presents an evaluation of the institutional cooperation project entitled "*Universidad y sociedad del conocimiento. Fortalecimiento institucional en áreas dedicadas a la enseñanza universitaria con nuevas tecnologías*" (FEUNT, Universities and knowledge society. Institutional strengthening in areas dedicated to new technology-mediated university teaching), funded by the Spanish Agency for International Development Cooperation (AECID) and undertaken by the University of Santiago de Compostela (USC), Spain, and the National University of Córdoba (UNC), Argentina. The main aim of the four-year project was to incorporate technologies into the institution, with emphasis on improved teaching and institutional conditions. By combining top-down, bottom-up and middle-out strategies (Cummings et al., 2005), the project articulated five programmes (research, lecturer training, technological improvement, teaching materials production, and dissemination and open knowledge), in which lecturer training, educational technology research and technology investment were interrelated. Taking needs into account, investment was made in core technologies and peripheral learning technologies (Salmon, 2005) that allowed the activities to be carried out, while others showing new potential were proposed. The aim of the work was to mobilise institutional culture in order to bring changes in teaching practices (Hargreaves, 2003). Lecturer training was carried out by means of workshops focusing on teaching materials production, viewed as an artefact that enabled teaching staff to reflect on decision-making when confronted with technology-mediated teaching processes (Cochran-Smith & Lytle, 2001). The results of the evaluation evidenced the success of a proposal based on strengthening a working group (Educational Technology Area) to support teaching staff. They also highlighted several weaknesses, particularly in relation to the project's sustainability.

Keywords

international cooperation, institutional strengthening, technology-mediated university teaching

Cooperación para el fortalecimiento: conocimiento compartido en la búsqueda de la mejora de la enseñanza

Resumen

Se presenta la evaluación del proyecto de cooperación institucional «Universidad y sociedad del conocimiento. Fortalecimiento institucional en áreas dedicadas a la enseñanza universitaria con nuevas tecnologías» (FEUNT), financiado por la Agencia Española de Cooperación Internacional para el Desarrollo (AECID) y desarrollado entre la Universidad de Santiago de Compostela (España) y la Universidad Nacional de Córdoba (Argentina). El proyecto, de cuatro años de duración, ha tenido como objetivo principal la inclusión de tecnologías en la institución poniendo el acento en la mejora de la enseñanza y en sus condiciones institucionales. A través de una combinación de estrategias top-down, bottom-up y middle-out (Cummings et al., 2005), el proyecto ha articulado cinco programas (investigación, formación del profesorado, mejora tecnológica, producción de materiales para la docencia y difusión y conocimiento abierto) que interrelacionaron la formación del profesorado con la investigación en el campo de la tecnología educativa y la inversión tecnológica. Teniendo en cuenta las necesidades, se invirtió en tecnologías centrales y periféricas (Salmon, 2005) que permitieron el desarrollo de las actividades y se propusieron otras que mostraron el horizonte de nuevas posibilidades. El trabajo desarrollado pretendió movilizar la cultura institucional con el objeto de generar cambios en las prácticas de enseñanza (Hargreaves, 2003). La formación de profesores se ha desarrollado a través de talleres que han tenido como foco la producción de materiales para la enseñanza como un artefacto que permitió al profesorado participante la reflexión sobre la toma de decisiones al encarar los procesos de enseñanza mediados con tecnología (Cochran-Smith y Lytle, 2001). Los resultados de la evaluación muestran el éxito de una propuesta basada en el fortalecimiento de

un grupo de trabajo (Área de Tecnología Educativa) que apoya al profesorado. También muestra algunas debilidades sobre todo atendiendo a la sostenibilidad del proyecto.

Palabras clave

cooperación internacional, fortalecimiento institucional, enseñanza universitaria con tecnologías

1. Introduction

The incorporation of information and communication technologies (ICT) into higher education institutions has emerged as an imperative part of the radical transformations that are taking place in the way that academic knowledge is produced and distributed in today's society. In an economic and social context that brings state education institutions into question, ICT are yet another catalyst that casts doubt on every dimension and function of universities as a whole. So much so that they have become a further source of inequality. Hence the importance of knowing how they really affect research, teaching and extension, and what consequences a lack of them in certain places and at certain times will have (De Sousa, 2012).

In recent decades, the integration of these technologies has formed part of the political agenda of most higher education institutions around the world (Hanna, 2003; GUNI, 2008). Latin America is facing a particular challenge in the sense that it once again has to overcome another symptom of the region, which on this occasion is the digital divide (Selwyn, 2010).

University scholars all over the world, and especially in the Ibero-American sphere, have alluded to the lack of training in methodologies and tools that could provide the necessary resources to cope with new challenges. This has led to a limited perception of the digital inclusion concept, where the digital divide is understood as a whole (Gewerc, 2007a) without analysing the different (strategic and operational) dimensions of it.

This is the framework within which there is ongoing discussion about why new technologies should be incorporated into educational proposals or what transformational potential these technologies really have in terms of achieving teaching practices that meet the demands of today's society. It was in this context that the project funded by the Spanish Agency for International Development Cooperation (AECID) entitled "*Universidad y sociedad del conocimiento. Fortalecimiento institucional en áreas dedicadas a la enseñanza universitaria con nuevas tecnologías*" (FEUNT, Universities and knowledge society. Institutional strengthening in areas dedicated to new technology-mediated university teaching) was carried out in the Faculty of Philosophy and Humanities (FPH) at the National University of Córdoba (UNC), Argentina, and coordinated by the University of Santiago de Compostela (USC), Spain.

The design and implementation of this project was a product of the joint and sustained work done by both universities within the Unisic Network,¹ where, since 2006, five Ibero-American universities,

1. <http://unisic.usc.es>

supported by the AECID, have conducted research, held debates and seminars, and put forward proposals to enable a grounded diagnosis to be performed and specific guidelines to be produced for the UNC's institutional strengthening with regard to new technology incorporation.

The project carried out at the UNC combined top-down, bottom-up and middle-out strategies (Cummings et al., 2005). It consisted of five interrelated programmes, and the work contained in it was based on linking lecturer training with research. Taking the UNC's new technology incorporation needs into account, and with the AECID's financial support, investment was made in core technologies and peripheral learning technologies (Salmon, 2005) in order to carry out the proposed activities, to attain the objectives set and to identify alternatives for developing new potential. The aim of the work was to mobilise institutional culture in order to bring changes in teaching practices (Hargreaves, 2003). Lecturer training was carried out by means of workshops focusing on teaching materials production, seen as an artefact that would enable teaching staff to reflect on teaching (Cochran-Smith & Lytle, 2001).

From the outset, FEUNT had an open knowledge approach and opted for open source software for every application. As a result, the importance of copyright issues in all of its actions became manifest.

The evaluation proposal was put forward with the basic aim of assessing the overall impact of the project on the institution as a whole. The views held by those involved were considered crucial to this process, which also took account of guidelines and criteria regarded as useful when a) projecting institutional strengthening by means of teaching technologies to the rest of the UNC and b) transferring it to other universities.

2. The cooperation project

The work done within the framework of the FEUNT project opted for cooperation as the relationship and working principle for the mutual growth of people, institutions and knowledge. As a context for dialogue, it allowed collaborative relationships to be developed; resources to be pooled; activities beneficial to the participants to be carried out; ties to be expanded and tightened; a feeling of belonging to be created; knowledge, experiences and know-how to be shared; and relationships of exchange and reciprocity to be established.

The studies conducted at the UNC within the Unisic Network in 2007 and 2008 (Gewerc, 2009) showed that the technology incorporation processes were in their very early stages, with varying degrees of development, and were characterised by the juxtaposition of efforts made by lecturers and academic units that were isolated from each other. On top of that, technology incorporation did not always go hand in hand with processes of reflection on pedagogical practices that would allow changes to be made. The UNC in general and the FPH in particular did not have the basic infrastructure for ICT-mediated activities. The FPH-UNC, with approximately 6,000 enrolled students, had a computer room with 10 computers. However, the classrooms did not have any connection facilities or video projectors, and the lecturers did not have any dedicated areas for producing their digital materials or

dealing with online queries. This exacerbated the differences between the people that had access to those resources outside the institution and those that did not. There were very few academics working on these issues and even fewer that had postgraduate training to enable them to set up a research and development (R&D) area. Training courses connected with this topic were very limited and did not focus on the relationship between universities, the knowledge society and teaching. Instead, they focused solely on the technical aspects of technology incorporation. Moreover, the lecturer training courses available on the topic were unsatisfactory. Under these circumstances, it was impossible to provide any permanent accompaniment that would foster the continuity of technology-mediated proposals or allow the strengths and weaknesses to be systematised (Gewerc, 2009).

By analysing this reality, it was possible to produce a project for improvement, with the institutional strengthening idea as an objective that would articulate the development of the historic principles of state universities: education, research and extension;² with the challenges of the 21st century: ICT integration, international relations and network formation. And all of this within the particular macro-context of Latin American universities that, with very little funding, aspire to provide greater access and democratisation on the one hand, and high academic quality on the other (Edelstein et al., 2009).

The four-year project, with annual phases, focused on the FPH-UNC's Educational Technology Area (ATE, to use the Spanish acronym). The aim of doing so was to strengthen it by creating actions and programmes that could make full use of its potential and lead to results that would be beneficial to all the lecturers. This challenge informed the proposal and guided it in many clearly articulated directions, where technologies were not only seen as the tools required to provide access to cultural assets available on the network, but also as objects of reflection, study, research, knowledge production and critical analysis, all of which are inherent to scholarly activity at university level.

Five programmes were proposed for the FPH, with projection to the UNC as a whole. These programmes were: 1) Training programme, 2) Teaching materials production programme, 3) R&D programme, 4) Technological improvement programme, and 5) Dissemination, communication and promotion of open knowledge policies programme.

Each of them contributed to the overall objective – the institutional strengthening of an area in order to improve university teaching through new media and technologies – while at the same endeavouring to lay the foundations for an articulated institutional growth and consolidation system that would be sensitive and adaptable to the transformations required in the process.

3. Strategies and perspectives. Changes in university institutions

Tackling an improvement project from the proposed perspective meant that a number of challenges had to be dealt with. The first was to make the most of lessons learned from previous experiences

2. The 1918 Argentinean University Reform incorporated extension as one of the functions that would bring universities closer to society, and advocated that they should become centres of excellence for the scientific study of major national issues.

in other parts of the world. Despite the imperative need to have a better endowed technology infrastructure than the one in existence at the start of the project, one of those lessons was undoubtedly to consider that the infrastructure had to be relevant and suited to the real needs of the users, otherwise it would quickly fall into disuse.³ Another challenge was the need to bring about changes in institutional cultures, regarding the ways in which teaching in the institution was usually performed. From the outset, this implied the need for a longer term project because the concern was to ensure that solid foundations would be laid for continued development after AECID funding had come to an end.

Numerous studies have reported on the complexity of changes in teaching and in the organisation, making it clear that they depend on the teaching staff's beliefs, the teaching and learning theories that the teaching staff support, training, educational policies and organisational culture, among others (Hargreaves, 2003; Law, Pelgrum & Plomp, 2008; Mumtaz, 2000; Somekh, 2008). On the other hand, the studies conducted by Larry Cuban more than a decade ago showed that "in order for fundamental changes to occur in teaching and learning, we must have an overall reform in the organizational, political, social and technological contexts of schools" (2001). Tony Bates (2001) also considered this to be the case. However, our studies (Gewerc, 2009; 2010) and several others conducted elsewhere (Shoham & Perry, 2009; Czerniewicz & Brown, 2009) showed that the acquisition of IT equipment was the area in which the greatest efforts had been made, whereas aspects such as lecturer training had been overlooked (Duart, Gil, Pujol & Castaño, 2008).

In addition, studies on policies relating to technology integration in institutions have shown that their success is determined to a large extent by the actors implementing them, and by the mediation opportunities between the regulator and the regulated actors (Duart & Lupiáñez, 2005). The mediated agent within the institution then becomes an important component, and acts between the technological imperative (which could be represented by top-down policies) and social constructivism (bottom-up). This frame reveals a third option, the middle-out one, which is led by middle managers. In their national study about the adoption of technologies in 28 Australian universities, McNaught et al. (2000) found that the three approaches were not necessarily mutually exclusive. While their characteristics are very different, they operate in institutional environments that are also different.

In order to integrate a middle-out approach, the ATE was selected. It was an institutionalised group that had the required characteristics to perform that mediation (proximity to the teaching staff and their ways of thinking and needs, as well as direct contact with the FPH-UNC's academic authorities). By strengthening it, it was felt that it would be able influence both levels of the organisation.

The above-mentioned study conducted by McNaught et al. (2000) summarised and articulated the interrelated factors that help to define successful proposals around three themes: policy, culture and support. Policy could be identified as the top-down approach, which includes the degree of leadership, the existence of specific institutional policies, strategic processes, etc. Culture could be represented by the bottom-up approach, which includes factors such as teaching and learning

3. Numerous studies have reported that the technological endowment of education institutions quickly falls into disuse, since it responds to a technological imperative rather than the need felt by the institution's actors (Montero, 2007; Gewerc, 2007b).

models, attitudes towards innovation, etc. The third component, support, includes the institutional infrastructure dedicated to supporting and facilitating change, such as the library, IT services, staff professional development, student support, etc. McNaught et al. (2000) represented the three themes in a Venn diagram, and acknowledged that when a change took place, there was an overlap between and within the three themes: policy, culture and support. By evaluating the impact of the project, we shall see how these three themes developed.

4. Project evaluation: learning from the process and from the results

The evaluation was carried out in the third and fourth years of the project. It was considered to be “a type of disciplined inquiry undertaken to determine the value (merit and/or worth) of some entity – the evaluand – such as a treatment, program, facility, performance, and the like – in order to improve or refine the evaluand (formative evaluation) or to assess its impact (summative evaluation)” (Lincoln & Guba, 1986).

In this context, the evaluation focused on analysing the process and the impact of the project’s implementation in the FPH-UNC from an interpretative, qualitative perspective. Those involved in and committed to the project could therefore be included for the purposes of analysing and interpreting relevant information from their discourse, that is to say, their declarative knowledge. It was undertaken in two stages. The first, in the third year of the project, focused on the materials production workshop; and the second, between the third and fourth years, put emphasis on the process and impact of the project as a whole, in order to establish what had been attained or, in other words, what social, cultural and technical changes, effects and consequences it had produced in the institution and in people from the education community. In order to perform the evaluation, three types of instrument were used to complement methodologies and obtain richer data: questionnaires, interviews and a focus group. Presented in this article are the results obtained from the second stage, referring to the impact of the project on the institution as a whole.

4.1. Questionnaires, interviews and the focus group

An anonymous, self-administered questionnaire was implemented online. A randomly selected sample consisting of 211 FPH-UNC lecturers (from a total population of 467) was asked to complete it. The sampling error was 5% and the confidence interval was 95%. In total, 70 responses were received, which represented a 33.18% response rate. The questionnaire contained 41 items divided into five sections. These sections were: identification; FPH-UNC content management system (CMS); participation in training activities carried out by the ATE; equipment endowment; and institutional support. The data from the questionnaire were exported to SPSS 18 (PASW Statistics).

In total, 14 in-depth interviews were also conducted; 5 with lecturers participating in the materials workshop and 9 with key informants (because of their roles in carrying out the project). They were

very useful for getting an in-depth insight into the views held by those involved, which allowed their intentionalities and the meanings they invested in the action to be captured.

In the interviews, the informants were asked about general aspects of the project, their participation and engagement in it, their perceptions of its strengths and weaknesses, and its impact on the institution. The data from the interviews were processed by means of content analysis (Glaser, 2002).

The focus group technique was used to complement and triangulate the data collected from the other instruments. A focus group was held with 9 university school directors of the FPH-UNC's various schools. The script included questions relating to their perceptions of the impact of the project on the institution, their assessment of the ATE's services, the project's strengths and weaknesses, and its continuity.

5. Results

The results obtained from the analysis of the impact of the FEUNT project on the FPH-UNC are presented below, under each of the three previously mentioned themes.

5.1. Policy

In the 1990s, Argentina began to respond to the international agenda for higher education through Act 24.521, which – still in force – takes a neoliberal approach to three issues: decentralisation, reducing the national government's role, and opening up to privatisation. However, it does not make any specific mention of ICT as an element important to the transformation of universities. The fact that there is very little regulation on this issue means that an in-depth reflection is perhaps even more crucial, and it should deal with the transformations that these technologies may engender for universities, as well as the consequences of their absence, along the lines suggested by De Sousa (2012). In this respect, according to the data obtained from the focus group, the project participants as a whole valued the role that the project played because it generated a framework for reflection and joint work. It was seen as a strength that enabled a broadening of the view of university problems; learning about other realities, contexts and experiences would lead to a better understanding of one's own context.

On the other hand, the FPH-UNC's institutional policy was an ideal setting within which to carry out the project. The faculty's governing body, which oversaw it, was committed to the ideals of state universities and the democratic function of knowledge and, in that respect, to the project. A university school director stated that the project was quite interesting because it was being carried out in an institution of which the ATE team members formed part, and as such they were committed to a series of issues that led them to design the project specifically for that faculty. He went on to say that the political will of the group behind the project was to strengthen the faculty by means of these absolutely innovative aspects.

However, two factors complicate the picture. First, the FPH is one of the UNC's most complex faculties, as it offers 28 bachelor's degree courses across 9 schools. Second, since the 1990s, Argentina's higher education policy has promoted research to the detriment of teaching. These issues were taken into account when developing the project programme management strategy. The organisational complexity of an institution like the FPH-UNC created difficulties with regard to the dissemination of the project and the potential that it had for the university as a whole. In order to improve that aspect, emphasis was placed on internal dissemination policies and, in the fourth year of the project, advances were made in this respect. Despite that, some lecturers stated that they had not taken part in the training activities owing to a lack of information. On the other hand, the need for teaching staff accreditations based more on research than on teaching has created a barrier to participation in longer term training activities. Proposals for setting up a postgraduate area dedicated to university teaching have not become as institutionally embedded as had been hoped.

The project also encouraged the institution and the governing team to get involved in taking decisions on very important legal aspects, such as defining the use of open access software for all IT applications, both managerial and academic. In relation to discussing the issue of licences and copyright, members of the UNC's academic authority said that one of the greatest difficulties connected with it was not so much the type of solution that ought to be proposed, but rather the problem it represented for the academic community.

The financial support granted by the AECID represented a significant boost for achieving all of these actions and, while it cannot be said that this was the most significant aspect of the project, it cannot be overlooked because it acted as a driver, enabling the actions and the staff that had to carry them out to be specified.

Some difficulties were also found, particularly in relation to coordinating the turnaround times of the four institutions involved (AECID, USC, UNC and FPH). The local project coordinator said that she felt that the administrative aspect was quite complicated because the institutions worked in accordance with four different sets of timings, priorities, ways of doing things, formal deadlines, etc.

The project's sustainability was of great concern, especially with regard to the human and material resources allocated to it. While the funding granted by the AECID enabled the project to be set up and developed, the big question was how the actions carried out could be made sustainable and how it would be possible to carry on without that financial support. Evidence of this was found in the interviews with the key people in the project management team, who said that it would be necessary to see what other funding channels could be found, and to design practices that did not entail high human resource costs to carry them out. This concern was also noted among the university school directors, who asked how it would be possible to make what had been done in the project – the actions already carried out – sustainable. They felt that this was a major constraint.

5.2. Support

The proposal for strengthening teaching in the FPH was based on the presence of the ATE group as the driver of change and as a key, strategic place. It was formed by a media specialist, a pedagogue and two film specialists. It was recognised as an important, accessible area that had institutional

support. The project's development allowed it to be enduring, strengthened and legitimated within the faculty. The fact that this team opted for interdisciplinary organisation was also valued. Evidence of this was found in the interviews with the lecturers, one of whom said that working with other areas of the university was very positive because work in the area was also done in a cross-disciplinary manner. That lecturer also felt that the ability to work in teams was necessary. The focus group also highlighted the importance and strengthening of the ATE team, which not only served as an unconditional support as an important area backed by the institution, but also generated trust because it was possible to see that others were doing something important. Similarly, evidence of the importance of this group to the key people in the project management team was also found, who considered that the area had become a place of reference.

Teaching staff professional training and development was a key factor on which efforts were focused to attain the overall objective of institutional strengthening. The analysis of the interviews and the focus group showed the powerful effect that the project had had on how to use and how to work with digital technologies in the university. The university school directors in the focus group said that the project had had a very powerful and significant effect on the lecturers because they had been able to begin to think with technologies in mind, rather than considering them as add-ons within the teaching proposal. The teaching staff interviewed also expressed similar feelings, saying that people were often afraid of new technologies and believed that they would be unable to cope with them or do things properly but, with the backing and support of a team of people who did know, they were able to see things differently.

The data obtained from the questionnaire reinforced the evidence found in the interviews and the focus group. Of the questionnaire respondents, 46.4% stated that they had undertaken technology training in the previous three-year period. Of that percentage, 78.6% stated that they had been trained in the ATE, and pointed out that the training received had enabled them to improve their teaching processes, mainly with regard to classroom dynamics.

Of the lecturers surveyed, 44.3% stated that they had taken part in some ATE training activity, and highlighted the lecturer training course on how to use Moodle, the materials production workshop and the training course on open access software applications. These activities were rated as excellent or very good. In addition, the ATE's position as a place of reference for lecturer technology training was demonstrated by the requests from lecturers who had not taken part in the proposed activities, as nearly all of them asked for more scheduling options for training, with greater support and advice from the ATE.

5.3. Culture

The analysis showed that the project had a major impact on teaching practices, as the intention to make changes, however small, was expressed. This meant that integrating technologies into teaching proposals would become a 'natural' part of the process. In this respect, the university school directors said that nobody was thinking about whether they would or would not be used, or whether they would go to this or that resource. Rather, they were thinking with that resource in mind, and

considered that nowadays people were familiar with technologies and its different languages, and that they would be incorporated into teaching as a matter of course.

As a result of the training carried out by ATE within the framework of the project, the use of the CMS in teaching materials had become generalised; it was used by 92.9% of the teaching staff surveyed.

The tools mainly used were those that increased communication with the students (86.4%), informed administrative issues (90.9%) and facilitated access to the faculty's materials (90.9%). We found significant differences between those who used them for linking to files (78.8%) and messaging (87.9%), and those who used wikis, blogs and groups (< 30%). Although they were still used like repositories – as most studies on the topic have shown (Gewerc, 2007b; Salinas, 2008), the spectrum has indeed broadened in recent years.

The areas and equipment provided by the ATE fostered the development of more innovative teaching proposals; 87% of the lecturers surveyed confirmed that the use of these areas and equipment had brought about changes in the dynamics of their classes, mainly in relation to communication with the students (78.7%), to participation (66%) and to motivation (65.2%).

6. Conclusions

Summarising a four-year project of this magnitude is a complex task. Each of its five programmes provided quantitative and qualitative data reflecting the changes that the institution had undergone. Among the project's endowments were: the purchase of equipment for the faculty's schools and classrooms; videoconferencing systems; computer rooms; a mobile computer room; the installation of the OpenFilo Wi-Fi network; improved connection facilities in buildings; the production of teaching materials for different subjects and bachelor's degree courses; books and computers for the library; the re-equipment of the grant-holders' office in the Research Centre; the creation and equipment of the Lecturers' Room; the production of dissemination materials and videoconferences; the maintenance of virtual classrooms; the implementation of an institutional blog platform; and the purchase of production and multimedia storage equipment for the ATE and the Audiovisual Documentation Centre.

In addition, with the aim of promoting the use and appropriation of new technologies and providing open access to knowledge, numerous activities to promote open access software were organised, and free lecturer training programmes were created. Of particular note was the creation of the Repository of Education Materials for Lecturer Training and Practice called 'Ansenzuza',⁴ as a result of the agreement with the Directorate General for Higher Education of the Province of Córdoba's Ministry of Education.

The complicity and support provided by the institutional policy was undoubtedly the key to achieving all of this. Indeed, it provided the right environment within which to regulate the

4. <http://ansenuza.unc.edu.ar/>

actions that were gradually carried out. This accompaniment was clear to see in the policy aimed at strengthening teaching, which, for example, enabled the lecturer training carried out to be counted as a significant component in teaching staff accreditations. Of course, it is not sufficient simply to report the success of the actions, as they need to be integrated into the daily life of the institution. And that is where the ATE team played a crucial role, by performing operation planning and project management, solving queries and providing the interface between the institutional policies' vision and the teaching staff's practices (Cummings et al., 2005).

The work done within the context of an Ibero-American network enabled an understanding of the global in order to help the local, taking particular cultural characteristics into account.

It was sometimes a complicated road to travel; the process meant that different cultures of work and ways of doing things and of being in the institution had to be combined and made compatible.

Even though the funding from the AECID had ended at the time of writing this article, which was one of the central concerns for its continuity, it was hoped that the institution would assume the cost of the ATE team, as it had become a very important area within the institution. According to one of the key people in the project management team, it had become an actor capable of helping others to develop the very process, an aspect that was already under way in another of the network's universities.

There is still a long way to go; changes in institutions need much more time than the four years that the project lasted. The value of this cooperation experience is that it provided the initial impetus for mapping out the route that the institution alone needs to take

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