



Co-funded by the
Erasmus+ Programme
of the European Union



Case study: Good Practices for Virtual Programs Developed by UCI-Costa Rica

Project Acronym	STOREM
Project full title	Sustainable Tourism, Optimal Resource and Environmental Management
Project No.	
Coordinator	University for International Cooperation - UCI
Project start date	
Project duration	

Abstract	<p>During the last 20 years, the University for International Cooperation has been venturing into the development of virtual educational programs including more than 10 master's degrees, free courses, and recently technical programs. Through this practice, it has been possible to have more than 4,500 graduates from 40 countries.</p> <p>Two aspects have been key in the success of the development of master's degrees in virtual environments: the identification of training gaps at the Latin American level in areas related to environmental sustainability and the adaptive management of the information technology department that has been integrating new tools to give support in pedagogical mediation.</p> <p>The following case study summarizes the lessons learned and good practices from UCI for the creation of virtual programs.</p>
----------	---



Co-funded by the
Erasmus+ Programme
of the European Union



HOJA DE CONTROL DEL DOCUMENTO

Título de Documento	University - Enterprise Partnership Model involving local government
Work Package	WP2 - Development
Última versión	21/09/2021
Estatus	V1
Versión de Documento	1
Número de páginas	7
Nivel de Difusión	Public/Internal

HISTORIAL DE CONTRIBUCIÓN

Versión	Fecha	Descripción	Socio Responsable
v.01	21/09/2021	V1	UCI - P5



Co-funded by the
Erasmus+ Programme
of the European Union



By: Center for Technological Mediation and the Faculty of Environment and Development

During the last 20 years, the University for International Cooperation has been venturing into the development of virtual educational programs including more than 10 master's degrees, free courses, and recently technical programs. Through this practice, it has been possible to have more than 4,500 graduates from 40 countries.

Two aspects have been key in the success of the development of master's degrees in virtual environments: the identification of training gaps at the Latin American level in areas related to environmental sustainability and the adaptive management of the information technology department that has been integrating new tools to give support in pedagogical mediation.

The experience has led the university to focus on the following:

- Consolidation of a Technological Mediation Center (CMT):

This center is responsible for supporting the different faculties of the university and their professors in stimulating the pedagogical strategies that the teacher wishes to implement, as well as continuously updating itself by determining which are the most appropriate instruments or tools to have current courses and programs.

This Center has been redefining its work approach, initially starting from an information technology department, then a virtual laboratory, and finally the Technological Mediation Center, which does not provide services on demand, but participates in the construction of the different courses.

- Virtual teaching:

UCI recognizes that there are important differences between face-to-face and virtual teaching, for this reason and given the scarce offer available in this line, it has built courses to train its teachers in this pedagogical strategy, in addition to updating itself along with them.

The introduction to the virtual world is carried out in stages where the first step is the training of the teacher, then there is the experience to teach a free course, and finally, they teach courses within the master's programs.

- Teaching support:

The change from an information technology department to a Technological Mediation Center has been key for teachers to find support for pedagogical mediation since this



assistance allows them to define what may be the most appropriate mechanism to achieve teaching and learning results. This has gone from asking for recommendations to starting a dialogue between the teacher and the specialist in technology mediation issues.

- Virtual assistance:

As an entity to support the teacher and the student, an academic assistant role has been established to personalize the teaching and learning process, establishing a link to meet the needs of teachers and students, including support issues that come from the educational dimension.

Virtual assistance helps to respond to queries and attention to difficulties with great agility and in a short time.

The trajectory of the virtual UCI modality:

Since 2007, the UCI has implemented its online education platform with MOODLE, with the aim of providing a high-quality offer and support to all the virtual educational processes that are developed, both academic, communicational, and technological.

At that time, there was already a virtual platform created with the Pan American Health Organization (PAHO), and it was maintained as support for the distance education programs that the UCI already had. In 2007, based on the trajectory and support of MOODLE, it was decided to migrate and start the use of MOODLE to have other tools applicable to virtual education and have other capacities for institutional growth.

With this educational methodology, the fulfillment of the requests of the knowledge society with respect to the meaningful learning of the students was promoted. By appropriating this technology to have a closer approach to information, the possibility was presented for the teacher to create activities where the analysis and synthesis of information were competencies to be developed by professionals. In addition, it made possible the construction, transformation, and presentation of the information in contents of greater motivation and attention in the students, and the tasks could be completed in a set of communicative acts that, through technology, demonstrated their participation.

Accompanying the internal migration processes, there has been an internal training component that, since 2008, began with VIRTUAL EDUCA and FATLA, both for teachers and administrators to be able to mature the concepts of virtual education. The research and bibliographic resources on the WEB have made it possible to carry out a benchmarking process that allows improving processes and functions within the virtual education that is carried out in the UCI.

Examples of the vast experience with MOODLE and its latest version MOODLE 2.8:



- Institutional Academic Programs: its five faculties have a virtual campus to monitor the educational processes of the masters and doctorates taught by UCI, where currently students, teachers, administrative personnel interact in the teaching-learning processes that are carried out daily.
- Non-formal education courses: several editions of open courses are held. An example of this were two massive courses held in March 2015, which had an enrollment of more than 1000 people. One on "New Paradigms for the Management of Protected Areas", and the course on "Impacts and Changes in Tourism in the Context of Climate Change".
- Projects:
 - Other universities in Mexico and Panama have been trained for the implementation of virtual educational processes and their support in technology. Examples are the Aztlán University in Mexico and the USMA University in Panama.
 - The diploma in Indexed Insurance for the reduction of climatic risks has been given in agreement with the GIZ, in which more than 300 people have participated.
 - Appropriate technical short programs have been given to some public institutions such as the General Comptroller's Office of Costa Rica, the Ministry of Public Education of Costa Rica, and others for smaller groups of 25 people.

In all cases, UCI has implemented a first academic module for the student to become familiar with the necessary instruments and to be able to achieve successful participation, with modern teaching tools in virtual environments, in addition to the design of a virtual educational complex that responds to the student's interactions and needs.

Design of the virtual organization in UCI

UCI's academic activity is developed through undergraduate and graduate programs, specialties, courses, seminars, and workshops. The teaching methodology of all programs is highly participatory.

UCI guarantees good performance in the management of MOODLE courses based on the experience that, since 2007, it has been developed not only with institutional academic processes but also with the number of management projects based on the MOODLE platform with universities, NGOs, and Latin American institutions that have been developed. The management of academic programs in virtual or blended learning modality ensures that virtual processes are significant and successful at UCI.



There is a course management commission where the different Information Technology (IT) departments, the Virtual Production Laboratory (VLAB), and the Academic Operations department have handled the processes linked to all pedagogical and academic management, technological, and communicational courses. This commission documents these processes, validates, and develops them in conjunction with the deanships for the implementation of academic programs, based on the flow of information from the enrollment of a student in a virtual program, the monitoring and management, as well as the culmination in a student's graduation.

Technological infrastructure

Regarding the technological infrastructure, UCI has the computing and communication resources required to support the educational process in the different modalities offered by the academic programs:

- Virtual: asynchronous interaction mainly between teachers, students, and the learning community, through Internet-based learning management systems.
- Blended learning: the combination of virtual and face-to-face modalities.

The technological infrastructure does not refer exclusively to the learning management platform or Learning Management System (LMS), but to all WEB services that must work in a synchronized way to support all virtual education processes, this is what, in UCI, is identified as Virtual Educational Portal (VEP).

Conclusion

This experience of more than 20 years in distance education that has led to virtual education in recent years, has allowed UCI to obtain national recognition as the first virtual university in the country, as well as at the regional level. In this way, UCI can reach the most remote places and offer a unique opportunity to students in the region, even when they cannot travel to study.

It should be considered that, in a logical way, the internal coordination of the UCI has seen the importance of the communication and synchronization of processes to support online education. This coordination with the normal academic and financial processes of the students is mainly executed by the constant interaction of the academic assistants, who personalize and humanize the virtual learning environments, by promptly monitoring the academic or financial needs of the student. These are also the teacher-institution contact and they collaborate with the technical parts of the virtual campus management to solve possible basic difficulties of interaction on the part of students or teachers.



Co-funded by the
Erasmus+ Programme
of the European Union



Thus, thanks to the offer of programs in virtual mode, 30% of UCI students do not reside in Costa Rica and can carry out their studies without leaving their family or work.

It should be noted that the Virtual Education department (called that way 20 years ago) started with one person and, today, the Technological Mediation Center has six professionals.

Recommendations

The update in the CMT is constant, it is always at the forefront of new tools for the exchange of knowledge internally and externally.

It is important to recognize the effort made by the department to train teaching staff to use technological tools, however, it is recommended that teaching staff and internal collaborators participate in training and technological updates.