

## Learning Ecosystem for Teaching Innovation

Angie Stuardo Figueroa<sup>1</sup>[0009-0000-3491-2241]

<sup>1</sup> Universidad Católica de la Santísima Concepción, Alonso de Ribera 2850, Concepción, Chile

astuardo@ucsc.cl

### Abstract.

Teaching Development Centers must promote innovation processes in the classroom, for which they carry out various actions. This article illustrates a way to articulate these actions, fostering continuous learning, collaboration processes, and motivation, with the aim of improving pedagogical practices through different initiatives. All of this is configured through the notion of a Learning Ecosystem for Teaching Innovation, where actions are no longer developed in isolation but, through devices and mechanisms that energize teaching practice, an interconnection is intended among different initiatives, generating a synergistic and integrated process. This article presents some actions that are part of this Ecosystem.

**Keywords:** Innovation ecosystem, Educational Innovation, Learning.

### 1 Introduction

The Center for Innovation and Teaching Development at the Universidad Católica de la Santísima Concepción teaching innovation as a participatory process that focuses on continuous and sustainable improvement over time. In this context, it is necessary to have spaces that foster innovative actions and establish them as meaningful and necessary practices for teachers. It is in this context that the idea of articulating the various actions under an ecosystem approach arises.

## **2 Theoretical Framework**

An ecosystem is a community where educational methods, policies, regulations, applications, and work teams can coexist in a way that their processes are interrelated, and their application is based on the physical factors of the technological environment (Martí, R; Gisbert, M.; Larraz, V., 2018). Additionally, Tiwana, A. (2013) identifies simplicity, resilience, sustainability, and the ability to evolve as characteristics of an ecosystem, which aligns conveniently with the idea of innovation that this center has decided to establish. It is also important to consider that, just as interactions between students and between students and teachers are essential in the teaching and learning processes, interactions between teachers are fundamental in this ecosystem. As Michavila (2009) points out, teachers are the decisive actors in educational change processes, and pedagogical and technological innovations are only viable if they have the complicity and protagonism of teachers. Similarly, educational innovation demands a certain adaptation of structures and learning spaces.

## **3 Methods**

To implement this ecosystem, in 2022, the concept was defined, and objectives were established based on a literature analysis and state of the art. The training activities were articulated with the teaching support projects that were already being carried out, and an innovation observatory was created to disseminate and promote spaces for innovation and collaboration. In addition, a space that supports these activities, such as the Laboratory of Teaching Experiences (LabCIDD), was implemented.

## **4 Results**

### **4.1 Definition of the Ecosystem**

The concept is defined as a community where educational methods, policies, regulations, and both internal and external individuals to the institution coexist, forming a network of learning services that promote knowledge exchange based on the physical factors of the technological environment.

### **4.2 Observatory of Teaching Innovation**

It provides visibility to the innovation projects developed by UCSC teachers and keeps us up to date with methodological and technological trends in higher education. It is structured with different sections for dissemination, trends, discussion, and teaching resources.

### **4.3 LabCIDD:**

A space for teaching experimentation is implemented, equipped with state-of-the-art technology and flexible furniture, individual and collaborative workspaces, and a recording studio for the production of audiovisual resources. This space supports activities focused on four axes: training, collaboration, experimentation, and production of teaching resources.

### **4.4 Diploma in Teaching for Higher Education and other training programs:**

A Diploma is structured with three parts. The first is conducted in an e-learning modality, the second consists of elective workshops in face-to-face or synchronous modality, and the third part involves putting into practice what has been learned through an innovation project.

### **4.5 FAD Projects:**

New guidelines are defined, and a special call is made for projects aimed at producing didactic resources for teaching in LabCIDD. Teachers work with a technical and pedagogical advisory team.

### **4.6 Participants:**

- 19 educational resource production projects in LabCIDD.
- 15 academic mentors.
- 9 LabCIDD ambassadors.
- 60 participants in the Diploma in Innovation in Teaching for Higher Education (2023, first cohort).

- Over 600 teachers participating in various training programs (2022).

## 5 Discussion

Given the complexity associated with teaching in higher education, it is essential to assume this role with a focus on continuous improvement and constant learning. In this context, promoting spaces for continuous training, exchanging experiences, and reflective processes in flexible, dynamic, and motivating environments becomes fundamental. From this perspective, the ecosystem approach can be highly beneficial.

## 6 Conclusions

Participants in the various initiatives demonstrate a high level of motivation and commitment to the activities. They are very interested in exchanging experiences and taking advantage of these spaces. Similarly, there is great motivation to develop actions collaboratively with their peers. However, time and workload can sometimes limit participation levels.

## 7 Limitations and Future Research

Economic resources are always a limitation for implementing these spaces, as well as the conditions of participation when there is an excessive workload in work environments. From the perspective of future research, it is necessary to evaluate the impact of the various actions that shape the ecosystem and the benefits of working under this approach.

## References

- Maranillo, R. M., Cervera, M. G., & Rada, V. L. (2018). Ecosistemas tecnológicos de aprendizaje y gestión educativa. Características estratégicas para un diseño eficiente. *EduTec Revista Electrónica de Tecnología Educativa*, 64, 1–17. <https://dialnet.unirioja.es/servlet/articulo?codigo=6490277>
- Tiwana, A. (2013). Platform ecosystems: Aligning architecture, governance, and strategy. Morgan Kaufmann.

Michavila, F. (2009). Vista de La innovación educativa. Oportunidades y barreras. (s/f).  
Csic.es. Recuperado el 16 de mayo de 2023, de <https://arbor.revistas.csic.es/index.php/arbor/article/view/373/374>