

Articulation of training paths from the professional technical high school to the undergraduate professional career.

Javiera Carvallo¹[<https://orcid.org/0000-0002-5598-4735>]
Maryelsa Rojas²[<https://orcid.org/0000-0001-7243-7699>]
Rodrigo Ruay Garcés³[<https://orcid.org/0000-0003-3283-4651>]

¹University of Playa Ancha, Avda. Guillermo González de Honteneda 855, Valparaíso, Chile

²University of Playa Ancha, Avda. Guillermo González de Honteneda 855, Valparaíso, Chile

³University of Playa Ancha, Avda. Guillermo González de Honteneda 855, Valparaíso, Chile
deic@upla.cl

Abstract. The object of this study is the elaboration of a Pilot Process Model of Articulation (PPMA) between Technical Professional Secondary Education (TPSE), Higher Level Technical (HLT), and Undergraduate Vocational Training (UVT). Its development contemplates the generation of relevant mechanisms that allow the implementation of articulated training paths, responding to the recognition of learning in the different areas and training levels, in the Professional Technical Qualifications Framework (PTQF). The methodology used is the "critical path method" that identifies various key actions in a given time. From the identification of these, 04 concatenated phases that constitute the PPMA were defined, establishing mechanisms, protocols and procedures that were validated.

The preliminary results regarding the PPMA denote the relevance of the mechanisms and protocols used for the recognition of formative trajectories.

Keywords: Recognition of studies, Qualification, Technical training.

1 Introduction

The Universidad de Playa Ancha (UPLA), in its Institutional Strategic Development Plan 2016-2025, and in its Educational Model, highlights the provisions of Law 21091 on Higher Education regarding the articulation at technical and professional levels, generating through the UPA project 2095, a PPMA, for the bidirectional link between the TPSE, HLT and UVT. This model has four phases: Phase 1 Design and Incorporation, Phase 2 Implementation, Phase 3 Appropriation and Phase 4 Consolidation. These were summed up by national and international experiences, working groups with key actors and with institutional functional units and territorial diagnoses.

2 Theoretical Framework

Articulation is considered as "the conjunction of curricular, pedagogical, institutional and cultural elements that promote the efficient and successful transition to higher education for students graduated from technical school programs" (Sevilla, 2014). The vertical articulation corresponds to the continuity, coherence, sequencing and gradualness that must exist in the comprehensive teaching and learning process, considering from didactic strategies, contents, to aspects of institutional organization, to avoid contradictions and duplications between the different levels (Coast, 2016). To achieve this, it is necessary that the study plans of the levels that they intend to articulate are designed together as a coherent whole. Thus, the PTQF is an input to guide the training work in the institutions, allowing to organize and recognize learning, distributed in a gradual structure of levels, which include knowledge, skills and competences. This facilitates the development of educational and work trajectories, strengthening the quality and relevance between the training offer and the different areas and the needs of the world of work (PTQF, 2021).

3 Methods

The design of the PPMA followed the critical path method, understood as an administrative process: planning, organization, direction and control of activities that make up a project and that are developed over time (Colcha-Sailema, 2021). This allows the transit of educational trajectories, responding to the requirements of the student and environment, with a participatory methodology. This study defines an intentional sample of programs made up of: 2 TPSE specialties, 2 HLT careers and 2 UVT, to form 2 articulated training paths, from different areas of knowledge.

Curricular analysis as a technique generates profile analysis matrices and curricular plans; definition of the competency gap, determination of leveling mechanisms, and Curricular Convergence matrix. In addition, Recognition of Learning is generated as a validation procedure for learning obtained through formal, non-formal and informal instances (Kri, 2015).

The management of the Model has follow-up, monitoring and systematic evaluation mechanisms for each phase, through the Balanced Scorecard (BSC).

Finally, the PPMA has a process map for administrative management considering the articulation of academic and administrative units.

4 Results

Internal and external validation highlights the relevance of mechanisms and protocols designed to recognize the training paths at different levels.

5 Discussion

From the critical reflection generated in the validation, 3 dimensions emerge:

- Socialization and collaboration of key players: the work between educational levels avoids the scarce curricular and institutional connection between the TPSE and the UVT (Mineduc, 2011), connecting them through the analysis of profiles and study plans to define together, the prior knowledge that they will be recognized at the next level (Muñoz, 2017). The key players provide feedback to the PPMA the generation of knowledge and information to ensure consistency between the formation of human capital and current and future needs (Muñoz, 2017).
- PPMA in the context of PTQF highlights the integration of training levels, according to training areas, allowing students to move smoothly between them, reducing training time, implying earlier employability (Muñoz, 2017).
- Management of the Implementation of the PPMA: The institutional, organizational and cultural conditions that allow the mobility of students and workers between different educational levels are decisive.

6 Conclusions

The PPMA allows TPSE students to transition to vocational training, limiting their permanence in tertiary education. However, for a smooth journey, it requires the joint work of the various educational levels in the generation or updating of study plans.

The implementation of the PPMA requires the generation of a strategic alliance between the different collaborating partners of the training system.

Finally, it is necessary to advance in the implementation phase in order to have evidence that allows the installation of the PPMA to be evaluated.

7 Limitations and Future Research

The need to establish policies that guarantee institutional commitment is evident, to safeguard the relevance of the training offer.

The Implementation phase of the PPMA requires updating the regulations, otherwise, you will only be eligible for "approvals" of curricular activities in the TPSE and HLT section. In addition, it is necessary to have a follow-up, monitoring and evaluation system, from the installation phase of the PPMA, for the study of the results and the pertinent adjustments. Finally, it is necessary to consider the effective installation of students in the work market.

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