

## Second Forum: The Status Quo of Technical and Vocational Education and Training Research in Costa Rica

*Alajuela, Costa Rica, 22 November 2023*

### Introduction

In Costa Rica, research in Technical Vocational Education and Training (TVET) is gaining increasing interest and importance. Various actors in Costa Rican general and vocational education and training system are interested in promoting it in order to be able to make scientifically based decisions for the future development of TVET in Costa Rica.



TVET Stakeholders involved in TVET system

In this sense, the Osnabrück University (UOS) and the National Technical University (UTN) in Costa Rica, carried out a scientific forum on the status quo of TVET research in Costa Rica. The forum is part of the Costa Rican Vocational Education and Training (CoRiVET) project, funded by the German Ministry of Education and Research (BMBF), for the forum also financially supported by the the Costa Rica Zentrum (CRZ) of the UOS.

Below are the main contributions and discussions of the presenters and panelists.

### Opening remarks

The opening remarks were given by Dr. José Matarrita Sánchez, Vice Rector of Teaching at

UTN, who emphasised the University's commitment to research in TVET. In this participation, the Vice Rector emphasised that the academic alliance between the CFPTE of the UTN and the UOS allowed the creation of the International Chair of Research in Technical Vocational Education and Training, unique in the country. This linkage has favoured the training of UTN teachers, students and researchers in subjects such as pedagogy and research.

The development of the Chair, with the support of the UOS, is projected as an academic space from which important research in TVET can be developed at national and international level from a multifactorial, multisectoral and global perspective.

Afterwards, on behalf of the German authorities, Ms. Alexandra Herr, Counsellor of the German Embassy in Costa Rica, gave opening remarks in which she highlighted the links between German institutions and national entities for the development of TVET in Costa Rica.

Mr. Alexander Hochradel from the German Ministry of Education and Research (BMBF), in a video, emphasised the importance of institutionalising TVET research for Costa Rica, as this is an indicator of the maturity of the system.

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Ms. Alexandra Herr, German Embassy in Costa Rica.

### Presentations

In a second part, the main results obtained from some research related to TVET were presented.

Dr. Irina Rommel and Enrique Angles, MA, researchers from the Department of Vocational Education and Training at UOS, presented the results of a research study entitled: The status quo of TVET research in Costa Rica.



Dr. Irina Rommel, Mag. Enrique Angles, Osnabrück University

Some of its main conclusions show that "research in TVET in Costa Rica is in an initial phase: coordination, dissemination, cohesion

and institutional collaboration is limited. It is developed in an isolated and fragmented way by institutions (mostly public universities), which affects its sustainability. However, a growth in the number of researchers has been observed since 2020, with the TVET system and dual TVET being the main research topics.

Some of the recommendations made in the study to institutionalise TVET research in Costa Rica were:

- to include research in TVET policy, with the allocation of resources,
- elaboration of research and funding programmes for the development of research in universities and other entities,
- the creation of a network of TVET research institutions and individuals,
- organisation of events for the exchange of research results with academic, non-academic sectors and authorities (decision-makers) and training of human talent (students, scientists) for TVET research through internships and postgraduate studies.



Silvia Camacho, MA, INIE-University of Costa Rica.

Silvia Camacho Calvo, MA, from the Institute of Education Research (INIE) of the Faculty of Education of University of Costa Rica (UCR), presented the results of the study: "Results of

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the Research for Development (R4D) project: "Link between education and the labour market: Under what conditions can TVET improve the economic income of the young population: the case of Costa Rica". In her presentation, she highlighted the importance of considering research results as a fundamental element in decision-making processes for reforms in the TVET system and the usefulness of spaces for reflection and action as a route for strengthening Costa Rican TVET.

Finally, Prof. Dr. Dietmar Frommberger and Prof. Dr. Thomas Bals from the Osnabrück University presented a theoretical reflection on the relevance, aims and approaches of TVET research.

Prof. Dr. Frommberger stated that TVET research should be understood as a sub-area of educational research, which is developed institutionally by universities and specific institutions of the TVET system through various forms and actions. In this sense, he highlighted as main lines: 1) research on teaching-learning (including TVET teacher education and the professional development of TVET teachers), 2) curriculum research (focusing on the demands of various industries and sectors) and 3) research on structural, organisational, legal and financial aspects of TVET.



Prof. Dr. Dietmar Frommberger, Osnabrück University.

### Panel discussion: "Advances, lessons learned and future challenges of TVET research in Costa Rica".



Max Paniagua (INA), Daniel Láscarez (UTN), Rocío Quiros (MEP), Silvia Camacho (UCR), Laura Vargas (MNC), Guiselle Cruz (SINEFOTEP).

As a closing activity, a panel presentation was held, which provided a space to analyse and discuss concrete aspects related to TVET research in Costa Rica. The panel consisted of Ms. Giselle Cruz, Technical Secretary of the National System of Technical Vocational Education and Training (SINEFOTEP), Silvia Camacho, from the INIE of the UCR, Daniel

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Láscarez, from the UTN, Max Paniagua, representative of the National Learning Institute (INA) and Laura Vargas, from the National Qualifications Framework (NQF), moderated by Rocío Quirós, lecturer in the "Technical Speciality Teaching" course at the CFPTE-UTN and Head of the Curricular Section of the Directorate of Technical Education of the Ministry of Public Education (MEP).

The dynamics of the discussion revolved around three questions:

1. *What is the relevance of TVET research in Costa Rica and what contributions has your organisation made?*

In this regard, **Giselle Cruz** referred to two advances in TVET research: the first is the creation of the National System of National Technical Education and Training (SINEFOTEP), which has defined a research axis in TVET, and the second is the approval of the TVET policy, whose second axis is research.

**Laura Vargas** stated that "research is like the light of a lighthouse, it marks a horizon for us", i.e. research favours better TVET planning by providing important data to minimise errors. She also indicates that political support is relevant for TVET research.

**Silvia Camacho** highlighted three important issues in relation to this question: TVET research provides scientific evidence for decision-making, feeds back into the TVET system and demonstrates the impact of TVET on Costa Rican society.

**Daniel Láscarez** stated that the history of TVET shows a lot of empiricism and lack of scientific analysis, however, nowadays society demands scientific data and analysis in TVET, hence the importance of research.

For his part, **Max Paniagua** indicated that educational institutions have to keep up with the advances of the system that permeates them, and in this sense, if an institution does not do research, it is better to close it down. For this reason, the INA carries out Strategic Surveillance, prospective research and other research processes in order to remain at the forefront.

2. *How can we make a qualitative leap in TVET research?*

In response to this questioning, **Max Paniagua** considered two key elements: The need for a research culture in each institution. Importance of the transfer of TVET research results, mainly to planning bodies, because it is essential to be coherent with budgetary support for research and institutional actions in the short, medium and long term.

**Daniel Láscarez** said that in order to make a qualitative leap in TVET research, a quantitative leap is required at the financial level, as explanatory research requires a greater investment of resources.

In turn, **Silvia Camacho** affirmed that there is a lack of coordination between TVET institutions in Costa Rica, and in order to have a greater scope in the research processes, a union of efforts and institutional resources is

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required, with the understanding that research should be developed according to the needs of the institutions and the system, not of the people who carry out the research.

**Laura Vargas** indicated that research allows for a vision of both the present and the future of TVET. In the short term, the academic sector and the productive sectors should coordinate under a country idea. In the medium term, a platform should be created to disseminate results, but also methodologies and raw data. And in the long term, a research network should be created.

**Giselle Cruz** stated that a great deal of work is required for an effective positioning of TVET (qualitative leap). The big task is to articulate between institutions (no more egos). The moderator, Rocío Quirós, added: "The willingness of institutional actors for the process is important. It is also important to have key informants for the research.

### 3. *What lines of TVET research require immediate attention?*

**Giselle Cruz** believed that research should be oriented towards dual TVET, what students are learning and how it has been implemented.

**Laura Vargas**, in this sense, considered it a priority to analyse the impact of TVET on the employability of young people.

**Silvia Camacho** indicated that it is important to improve the quality of the available data, so that impact evaluations can be carried out. In the same way, someone must take the lead on curriculum evaluation, as institutions are not specialised in this area.

Meanwhile, **Daniel Láscarez**, indicated that the unemployment rate is a crucial line of research, because it has an impact on employability. Three types of research are needed (as presented by Prof. Dr. Frommberger): research on the teaching-learning process (what profile do TVET teachers have?), curricular research (link with the business sector) for the integration of graduates into the labour market, management problems of the TVET system (permeability of the system). And the topic of dual TVET, which links TVET policies with employability (and how the business sectors understand it).

To conclude the panel presentation, **Max Paniagua** referred to the need to plan and make an in-depth analysis of TVET in the country. At present, each entity has an Institutional Plan, which is not articulated with the National Plan. For this reason, he suggested using some of the 70 foresight techniques and making decisions as a system.

**CoRi VET – Costa Rican Vocational Education and Training**