

VET centres: from a traditional to a transformational role for students, enterprises, and society

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ABSTRACT:

Vocational Education and Training (VET) has the potential to move from a traditional function to a transformational one by extending their activities beyond teaching provision. The transformational role of VET is focused on non-traditional functions like applied research and technical services provision to enterprises supporting SMEs innovation and local and regional development. However, these non-traditional functions belong to a complex process and depend both on internal and external factors to the centres being driven by the need for innovation and problem-solving of those enterprises outside the scope of the traditional institutions. Therefore, applied research in the VET field can be defined as solving real problems in industry that posits VET as a key agent in the Regional Innovation Systems. The approach to non-traditional functions, in general, and to applied research activities are considered some of the key characteristics of excellence in the VET field.

Keywords: VET centres; applied research; innovation

When we talk about the rationale of applied research in the Vocational Education and Training context, we should reflect on the traditional vs the transformational roles of VET, answering the question about what should be the role of VET in the current context of technologization and need for innovation not only at the teaching level but also at the local and regional businesses level.

In general, the traditional role of VET centres could be framed in the context of teaching provision (especially initial VET) with a strong connection to sectoral and industry demands. This traditional notion could possibly emphasize VET having a unique function or mission mainly focused on the provision of qualified workforce to a specific portion of the labour market.

However, a transformational role of VET centres goes beyond the teaching provision and the boundaries of the centres being guided by multiple functions and objectives in the labour market and acquiring non-traditional functions and capacity building in students, enterprises, labour market and society.

The non-traditional role of VET centres and the performance of multiple functions more than teaching provision specially at the businesses level could be boosted by, at least, two reasons (Navarro, 2018a). Firstly, the SMEs need for innovation coming from outside, that is, external but proximal agents to the enterprises different to the big universities and technological centres. Secondly, the regionalization processes of competitiveness that is determined at the local and regional level. Therefore, the local nature of VET centres provides them relevant and potential roles for competitiveness development.

These transformational and multifunctional roles of VET centres can be driven by some external and contextual factors identified by Navarro (2018a). (a) When the local sectoral and business structure is mainly comprised by industrial enterprises there is more potential for VET to have a transformational role because of their dynamic nature. (b) When the labour market institutions are highly flexible there is more room for VET to play a transformational role (which is the case of countries like the USA, Canada, Australia, among others). (c) However, the higher availability for small and medium enterprises of institutions supporting innovation and knowledge

development could provide less opportunities for VET centres to have a multifunctional potential. (d) When VET is mainly funded by the public sector and the centres are highly dependent on public funding, they are more likely to look for multiple functions in order to increase their income.

At the same time, according to Navarro (2018a), there are key internal factors of the VET centres that can be related to the performance of non-traditional functions like applied research: (a) a school-based learning process more than an enterprise-based process, (b) the provision of higher levels of VET education, which is related to higher internal capacities, (c) the provision of different educational levels more than VET, (d) the higher autonomy of the private centres, (e) the centre size and the higher opportunities of the bigger ones for performing multiple and non-traditional functions (f) the background of the centre, where those belonging to a business association are more likely to go beyond traditional roles in comparison to those owed by a group of investors, and (g) the human capital as a key driver of the development of extra functions specially when the staff has industrial and research experience.

Considering the broad range of non-traditional functions that could be performed by VET centres influenced by the internal and external factors above exposed, Navarro (2018a) identifies two main categories. The first one involves teaching activities more than initial VET (IVET) covering general education provision both for young and adults as well as continuous education (CVET). The second group of non-traditional activities goes beyond teaching and the centre itself by offering applied research and technical services which not only contribute to the teaching improvement but also supports SMEs and the local and regional development. This second group also comprises entrepreneurship promotion, the local development strategies creation and the linkage of knowledge structures.

However, according to Navarro (2018a), performing non-traditional functions at the VET centres level is a complex process with several challenges to be dealt with by them. First of all, and related to the teaching provision, the main challenges are the protection of the main mission of the centre and the responsibility of strengthening teaching by means the performance of these non-

traditional functions. Secondly, regarding the centres' capabilities, it is important to ensure key resources and knowledge required for a successful performance as well as a strong collaboration between centres for resources sharing. And, finally, the coverage of local and regional needs which can be difficult to be supplied by individual VET centres.

Going deeper into the applied research activity viewed as a non-traditional function that could be performed by VET centres, it is important to clearly define both basic and applied research identifying the traditional agents or actors in charge of each type of research.

On the one hand, according to the OECD (2002), basic research could be defined as the “experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any particular application or use in view” (p.30). Therefore, the view of basic research is formulating and testing hypotheses, theories and laws. That kind of research is usually performed by universities and research centres which are closer to the big companies needs mainly because of their capacities. Its focus is on knowledge generation by means of science and technology (STI model) (Navarro, 2018b).

On the other hand, applied research is defined as the “original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily towards a specific practical aim or objective” (OECD, 2002, p.30) and “the results of applied research are intended primarily to be valid for a limited number of products, operations, methods or systems” (OECD, 2002, p.78).

This kind of research can be performed by universities and research centres, technological centres, knowledge intense based services (KIBS) and also by VET centres. Therefore, in the VET context, Simon and Beddie (2017) point out that applied research is about “Solving real-world problems in industry” (p.1) considering that VET centres are closer to SMEs needs and capacities (Navarro, 2014).

Applied research in the VET field is about creating new knowledge but also using existing knowledge in new and creative ways (Simon and Beddie, 2017). It could be related to learning by

doing, by using and interacting, according to the DUI model (Navarro, 2018b). Some examples of VET performing that kind of activities can be found polytechnic institutes, community colleges and applied sciences universities among others.

Applied research in VET is also about solving problems and improving knowledge in VET field which in turn improve teaching on VET allowing the development of "specialist pedagogy for industry expertise" (Corbel et al. 2014 cited by Simon and Beddie, 2017, p.1) as an important element in building a workforce capable of innovation (Simon and Beddie, 2017).

Therefore, vocational training centres are a key agent within the Regional Innovation System (RIS) (Albizu et al., 2011; Navarro, 2018b; Simon and Beddie, 2017). This is especially true where VET centres provide companies with services based on applied research to improving their competitiveness by the promotion of innovation.

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