Institutional Support for Active Learning: a case study in Portugal and Brazil

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Abstract

The labor market has demanded technical and transversal competences from graduates. In higher education, these competences are developed and/or enhanced through activities related to active learning approaches, which places the student at the center of the learning process. Much has been written the importance of active learning for students' professional development. Less has been known about the institutional strategy that enables opportunities for students to develop such competences and prepare them effectively for their professional practice. This research proposes a case study as a methodological approach, considering two universities, Portugal and Brazil. The object of study is the relationship between active learning and professional practice in the context of higher education, considering the institutional initiatives that prevail in both countries. The main objective is to analyze, from an institutional perspective, how active learning contributes to the development of competencies in the context of higher education. The data was collected first by document analysis of the strategic plans of the studied institutions, followed by interviews with institutional stakeholders in both countries. Preliminary results suggest that institutional support is fundamental, indispensable, and necessary for active learning to fulfill its role as a tool in building competences for students' professional practice. Although there is discourse on active learning as a methodology for student protagonism, in the studied institutions, its adoption is more strongly linked to individual initiatives of teachers than to robust institutional support. It is possible to identify programs and projects in which the student is the protagonist in the institutions. However, this is related to the teacher's performance and not necessarily to institutional criteria that encourage the teacher to adopt active learning strategies as the main tool in building competences for students' professional practice.

Keywords: Active learning; Professional development; Institutional strategies.

1 Introduction

The labor market has demanded not only technical but also transversal competencies from graduates. In higher education, these competencies are developed and/or enhanced through activities related to active learning, which places the student at the center of their education.

This work argues that the institutional aspects that enable active learning as a tool for the professional practice of students in learning environments are crucial for the university's role as an agent of local transformation and promoter of innovations. The object of study is the relationship between active learning and professional practice in the context of higher education, considering the institutional initiatives that prevail in two countries: Brazil and Portugal.

The main objective is to analyze, from an institutional perspective, how active learning contributes to the development of competencies in the context of higher education. The research questions guiding the study are: what are the institutional initiatives that promote competencies in the professional practice of students? How, in particular, do active learning contexts, in their various educational settings, contribute to the development of these competencies?

2 Background

The university originated as an institution focused on teaching and pure research, later turning its attention to meeting the demands of society, which led it to engage with social actors such as industry and governments, in order to expand the production and application of scientific knowledge and obtain alternative sources of resources for its activities. In contemporary times, it has emerged as an entrepreneurial university (Ruffoni, Melo, & Spricigo, 2017).

In this entrepreneurial university, there is a reorganization of knowledge in response to an information and knowledge society that demands the same from the academic world, which still employs traditional techniques for knowledge construction. The compartmentalization of knowledge is not in line with the functioning of an information and knowledge economy, which suggests new forms of knowledge construction, such as interdisciplinarity and active learning (Finquelievich, 2007).

There are two trends that push in opposite directions: the progressive diversification and specialization of knowledge and the emergence of increasingly specific and up-to-date research and teaching; on the other hand, the academic world shows the urgent need to adapt to the interdisciplinary nature of the most important social problems, such as sustainable development, poverty reduction, new public health issues, among others (Finquelievich, 2007).

Vale (2012) emphasizes the fundamental importance of the close relationship between universities and companies. Or at least, they should maintain such a relationship. This relationship would primarily occur through knowledge transfer processes, making universities crucial agents in the generation of knowledge, especially through scientific research, benefiting local economies (Goddard & Vallance, 2013).

Etzkowitz & Leydesdorff (2000) proposed the triple helix model, which presents the relationships among the university, the firm, and the government, and their impacts on development. Two complementary perspectives can be observed: the institutional, which concerns the institutional arrangements between the three spheres, and the evolutionary, which understands each sphere as a subset that can modify the role it plays in the context in which it is inserted (Ruffoni, Melo, & Spricigo, 2017). As an agent of an innovation system, universities play a dual role: on one hand, they train specialized labor; on the other, they support and sustain scientific research, making the institutional agreements established between the university, the company, and the public sector, understood as central agents in the production of knowledge and innovation, fundamental (Ruffoni, Melo, & Spricigo, 2017).

Although there is convergence among authors regarding the role of the university as an agent of information, knowledge, and innovation, Rapini (2018) points out areas for improvement to address the weaknesses in the performance of universities: 1) generation of multidisciplinary knowledge; 2) reduction of internal university bureaucracy to favor broad cooperation; and 3) promotion of actions aimed at Development vis-à-vis the Entrepreneurial University.

These points are aligned with Fonseca (2019), who also identifies the following as limiting factors for the university's performance: a) limitations of financial, human, and time resources; b) complex bureaucratic processes; c) fragmentation of engagement channels; and d) inadequacy in performance evaluation.

The relationship between the university and society is compromised in the sense that the latter may not have access to the knowledge produced by the former. Social demands, from which scientific and academic research should originate, end up playing a secondary role when directing research efforts.

Goddard & Vallance (2013) assert that the location of universities in cities necessarily implies a relationship with other institutions that inhabit the place. Therefore, the relevance of academic practice for the territory in

which the agents of information, knowledge, and innovation work, live, and act as citizens is discussed. In the view of these authors, the university is an institution that establishes horizontal links – local social and institutional spheres – and vertical links – global flows of knowledge and people.

Finally, the university's role in the local reality lies in the fact that, institutionally, this agent of information, knowledge, and innovation has or should have the necessary and adequate tools, instruments, and mechanisms for the local establishment of knowledge. The university thus plays a dual role in the information and knowledge economy: it produces knowledge and trains the agents who produce knowledge. It is, therefore, a privileged actor. However, the effectiveness of its role is closely linked to the existence of a science, technology, and innovation policy, whether explicit or not, and to the possibility of social appropriation of the results of the investigations carried out.

Goddard & Vallance (2013) present the possibilities of relationships between teaching-research-extension in universities: teaching and research as the integration of academic activities; teaching-extension, due to the integration of academia with society and vice versa; research-extension, which can provide economic impact as it responds to societal demands. Aligned with these authors are Breznitz & Feldman (2012), who list the diversity of roles that can be associated with the university's performance, which goes beyond the effects of the classic teaching-research relationship: workforce development, partnerships for regional socioeconomic development, promotion of local entrepreneurship, greater integration between the agents of information, knowledge, and innovation in the university's locality. When thinking about public policies, there is the possibility of conducting research with the aim of providing support to public administration for the region's economic and social development. Finally, one can also think about cultural dynamism in the city and region and the effort towards the internationalization of this territory.

In this context of the university's central role as a producer of knowledge and a trainer of the workforce, active learning emerges as a tool that enables the fulfillment of the university's three missions – teaching, research, and extension – with the latter being emphasized as fundamental for the effectiveness of its role.

Active learning is not confined to the classroom. Felder & Brent (2009) discuss that active learning applies to a context where there is a problem, a question, or an inquiry, whose answer or solution can be constructed through reflection and discussion. This can occur in laboratories, companies, the local reality, and even in the classroom. Environments that enable active learning place the student as the protagonist in the construction of knowledge, equipping them with competencies such as communication, leadership, teamwork, and emotional intelligence. The teacher/mentor acts as a mediator who prepares students for their professional future (Christie & Graaf, 2015).

Much has been written about significant experiences related to active learning in the professional practice of students (Felder & Brent, 2009; Prince, 2004; Prince & Felder, 2006; Bonwell & Eison, 1991) and about evidence that active learning allows for the achievement of satisfactory educational outcomes (Freeman et al., 2014; Weiman, 2014; Lund & Stains, 2015; Theobald et al.,2020, Nguyen et al., 2021). However, little is known about how institutional strategies are adopted to favor the construction of competencies in students and prepare them for professional practice in the labor market.

This work argues that the institutional aspects that enable active learning as a tool for the professional practice of students in learning environments are crucial for the university's role as an agent of local transformation and promoter of innovations. Therefore, it investigates how the studied institutions promote, institutionally, initiatives that contribute to the professional practice of students, equipping them with transversal competencies, in addition to technical ones.

3 Methodology

This work is a fragment of a post-doctoral research and the results are still partial. Ten institutional personalities were interviewed, five from each of the institutions involved in the research, about the relationship between active learning and professional practice in higher education in the Portuguese and Brazilian contexts.

A case study was conducted following a qualitative approach with semi-structured interviews, followed by content analysis according to Bardin (2004). The identification of institutional actors was crucial for the results obtained so far, as they are directly involved with institutional aspects and have the power to make decisions and implement pedagogical innovations.

The data collection followed the following procedure: in the first set of questions, the interviewees were invited to describe their professional trajectory, which justified the choice of each of them; in the second set of questions, the interviewees discussed the relationship between active learning and institutional aspects/strategies, and finally, in a third moment, they were asked about the relationship between active learning and the professional practice of students.

The semi-structured interviews were transcribed and, following Bardin (2004), the responses were categorized into: 1) active learning and competencies; 2) active learning and institutional strategies; and 3) active learning and professional practice.

4 Results

Initially, all interviewees were encouraged to describe their professional trajectory.

All ten interviewees hold decision-making positions regarding pedagogical and institutional matters and, in this sense, can direct/choose strategic decisions for pedagogical innovations that affect the professional practice of higher education students. Another point to highlight is the fact that all of them have been or are involved in teaching activities, administrative activities, and institutional decision-making positions, emphasizing the statement of one of the interviewees: "everything related to teaching is with me" (Interviewee 2)

4.1 Active learning and competence

At this point, the participants were asked about their respective understandings of active learning and competencies in the context of higher education.

It is a consensus among the interviewees that active learning is fundamentally characterized by student protagonism, which was recorded in different but convergent ways among the interviewees.

> "(...) effort that the student undertakes on their own initiative to achieve the defined objectives (Interviewee 1)."

Interviewee 3 understands active learning as a paradigm founded on student centrality, while also paying attention to the role of the teacher.

> "(...) are those teaching strategies or methodologies that place more, that propose more autonomy for the student, which does not mean less agency on the part of the teacher, because for this autonomy to be effective on the part of the student, they need to be prepared for it, but I think the focus is always on this centrality of the student as the author and as responsible for the construction of their, co-responsible, in fact, for the construction of their learning" (Interviewee 3).

The relationship between active learning and the development of competencies in higher education "implies actions" (Interviewee 3).

> "(...) the competencies are associated with what will enable the student to perform their role outside the university, in the labor market (...) knowing how to listen (...) personal relationships" (Interviewee 6).

> "It is not enough to give a theoretical lecture on what collaborative work is for my students to effectively learn to work collaboratively. Or communicative ability. A lecture on the characteristics of good communication is not enough for students to effectively learn or develop this competence" (Interviewee 3).

Finally, there is an understanding that active learning in higher education would lead students to the construction of competencies for professional development.

> "(...) active learning in higher education is a priority for promoting human development and (...) they are active in the sense that they mobilize not only knowledge but also other competencies that are essential for integral development (...) critical thinking, communication, creativity, dealing with conflicts, relating to others and oneself" (Interviewee 4).

From these fragments of the interviewees' reports, it is possible to perceive that active learning strategies favor the construction of competencies in students not only from a technical point of view but, above all, those transversal competencies that also prepare them for the labor market. Both among the interviewees and in the literature, there seems to be a consensus that such strategies lead to satisfactory educational and professional outcomes.

4.2 Active learning and institutional support/strategies

In this topic, the objective was to understand the interviewees' conceptions of active learning and the institutional aspects that favor it.

Although the strategic documents of the studied institutions mention active learning approaches, this fact does not guarantee the adoption of the method.

> "I would say that we have guiding documents that are aligned with active methodologies. Often, the directors, most of the directors, are also aligned. Sometimes, from my reading, there is some difficulty between the coordinators and the teachers" (Interviewee 4).

When asked whether the institutions encourage active learning strategies, it stands out in this case that the institutions do not clearly encourage or do not encourage the adoption of active learning strategies for the professional practice of students.

> "I think so, but very occasionally still (...) I don't think the institution does enough for these strategies and methodologies to effectively appear transversally in the different academic units and in the different educational offerings that the university has" (Interviewee 3).

> "(...) although I am aware of specific actions by certain groups that try to do so, there is no institutional support" (Interviewee 7).

By 'specific,' the participants refer to initiatives by teachers and not to the existence of an institutional policy that encourages active learning strategies.

> "(...) we are a relatively new office, and we work a lot with teachers who voluntarily want to work with us (...) so, there is not yet institutionalized a guide or a set of practices that are beneficial for teachers to propose in their classes" (Interviewee 5).

"Teachers do not receive any incentive to participate. Because they are not recognized in any way. In the pedagogical surveys, something in this sense is slowly starting to appear. So, institutionally, there is a very long way to go" (Interviewee 3).

"(...) the issue is always with the teacher, who has pedagogical autonomy (...)" (Interviewee 4).

The interviewees understand that active learning strategies are relevant to most subjects and content areas. However, the majority advocate for the coexistence of traditional teaching methods—characterized by lecture-based, teacher-centered approaches—and active learning strategies, which emphasize student agency. Particularly in the Brazilian context, and in light of the lack of institutional support, resistance stems from the fact that "people do not know what to do or how to do it."

"(...) The institution might need to encourage faculty more actively to become familiar with these new strategies (...) There are courses that perhaps do not yet fit into this model, but I would, at the very least, like to try at some point. However, in order to try, I would need support. (...) For instance, I am quite apprehensive about implementing a flipped classroom approach. (...) If I walk into the classroom and say, 'Everyone, let's begin our debate,' and they haven't read anything, then, for me, it was all for nothing." (Interviewee 9)

However, Interviewee 3 points out that merely offering training in isolation, so that faculty can engage with active learning strategies, is not sufficient. As stated, "it depends not only on interest, but also on the goodwill and availability of the instructors to take part in these initiatives. There is no institutional incentive for them to effectively participate in these training sessions".

The accounts clearly highlight the need for the institutionalization of active learning strategies or for institutional support so that such strategies may be adopted with the deliberate aim of enabling students to develop the competencies necessary for their professional growth. Furthermore, institutionalization would also entail the practice and professional development of faculty, so they can identify which strategy is most appropriate for each type of content.

4.3 Active learning and professional practice

In this section, interviewees were encouraged to list the characteristics they observe in the professional practice of students, as well as to reflect on how the development of these characteristics is, or is not, supported by active learning strategies in the institutions studied. At this point, it can be stated that there is a convergence among the institutions surveyed.

The interviewees listed the competencies they recognize in the professional profile of graduates from the institutions studied. There is a convergence of competencies between the two institutions. These include: critical thinking, ethics, social responsibility, autonomy, teamwork, communication, and technical competence.

Finally, when asked to describe how such competencies are fostered within the institutions where they work, the responses were also convergent.

"I would say that, in general, the institution does its best to develop this type of competency, particularly critical thinking. Because, quite often, many professors encourage discussion and prompt students to speak and try to express their opinions on certain topics." (Interviewee 5)

"(...) we have engaged in volunteer activities (...) numerous initiatives within the community." (Interviewee 1)

> "I don't know if it's because they've been exposed to active strategies, but a variety of other activities contribute to this [stimulating competencies]: extension activities, junior companies, internships, considering this broader type of education." (Interviewee 7)

What can be inferred from the interviews at this point is that the institutions studied are able to identify characteristics and competencies that contribute to the professional development of students. However, it cannot be stated with certainty whether the development of these competencies is a result of the adoption of active learning strategies.

5 Conclusion

This ongoing research explores how, from an institutional perspective, active learning contributes to the development of competencies in the context of higher education at two institutions.

The results obtained from the data collection allow us to affirm the importance of active learning strategies for the professional practice of students. The interviewees unanimously recognize this teaching-learning method as relevant, and the scientific literature indicates an improvement in educational outcomes through the adoption of such strategies.

However, from an institutional perspective, there is no clear adoption of these active learning tools in either of the two institutions studied. While there are references to active learning in institutional strategic documents, there is no clear evidence of formal institutional support for encouraging such practices.

In both institutions, there are departments that discuss pedagogical practices, but this is not enough to encourage active learning. As the interviewees consistently state, the adoption of active learning tools, approaches, and strategies depends on the initiative of the instructor. Although there is no obstruction to adopting such practices, there is also no clear incentive. There is discourse! Persuasive discourse! But the effectiveness of such practices needs to go beyond words. The instructor engages in these practices because they believe in the method, not because the development of transversal competencies is a priority.

There is no doubt that technical practice is prioritized and taken seriously at the institutions. Technically, at both institutions, the student develops this competency. However, the job market also demands transversal competencies, which go beyond and complement the technical practice.

Knowledge is constructed in various environments, including the classroom. Knowledge is built by the teacher, the student, and the relationship between these agents, as well as their connection to the professional world and the world in which they are engaged. At times, traditional methods are not sufficient.

The answers to the questions guiding this research – what institutional initiatives promote competencies in the professional development of students and, in particular, how active learning contexts, in their various educational settings, contribute to the development of these competencies – are being constructed through listening to the agents who are institutionally involved in the selection of learning strategies.

The results demonstrate the need for the institutionalization of active learning strategies in the professional development of students. The interviewees highlight the necessity of institutionalization, recognize the challenges in dealing with these strategies, but also suggest possible measures for institutionalization, such as: "a coordinator capable of motivating, involving, and creating space" (Interviewee 4); fostering existing initiatives like pedagogical departments; encouraging (not necessarily financially) professors to adopt these strategies by rewarding them, for example, with points for career advancement, among other measures that

the research will further identify. In other words, the goal is to integrate active learning strategies into institutional guidelines, making them feasible practices for both teachers and students.

The connection between professional practice and active learning follows these sometimes innovative paths.

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