Abstract

With the implementation of the Bologna Process in higher education, competences are the central axis of the teaching/learning process, both in the technical-professional dimension and in the perspective of transversally. Although the concept of transversal competence does not generate consensus, one of the main purposes of the current education and learning efforts is to equip students with competences that are transferable across contexts and that lie beyond approaches to content or areas of knowledge.

The purpose of this ongoing research is to devise a profile of transversal skills of the education professional, able to guide the training work in the higher education institutions, support the tasks of evaluation and certification of the said competences and promote the personal and professional development of 1st cycle students, where the implementation of the transversal laboratory in Portuguese University will be analysed as a case study, comparing performance indicators and forms of adherence to students' transfer of competences.

Exercising this role is only possible if the teacher is a reflexive professional, an agent of his own formation and stimulator of the student's formation, mediating the construction of knowledge with playful, reflexive, challenging and creative activities, enabling students to become participant subjects, autonomous and critical.

Keywords: Transversal Skills, Higher education, Training profile.

1 INTRODUCTION

With the Bologna process, higher education institutions have been challenged to find solutions for the socio-professional integration of their graduates through a differentiated approach to the labour market. Therefore, the capacity of higher education institutions to narrow the gap between universities and the labour market, through the intentional promotion of the development of transversal competences [1], will be determinant. This process is articulated with innovation and permanent revision of pedagogical practices implemented, allowing 1st Cycle students to acquire and develop generic skills that, along with the specific knowledge of each scientific area, increase access to employment and promote responsible citizenship.

This concept is based on the fact that the requirements for the socio-occupational integration of graduates include the development of personal skills that enable them to adapt to the labour market demands in the present and in the future. The aim is to increase employability, understood not only as an increase in the probability of adapting to the explicit needs of employers, but also as a potential for creating value in the future jobs. On the other hand, the use of these skills is in itself a fundamental requirement to respond to the needs of adaptation to change, fostering a continuous learning orientation.

This perspective requires that graduates be able to connect the specific knowledge acquired within the scope of the specific curricula of each scientific/technical area with socio-professional abilities that allow them to select forms of action appropriate to each professional context. Specifically, it is a question of orienting higher education to the education of graduates capable of identifying problems, seeking answers in a proactive, creative and autonomous way.

The pilot project called Tuning Educational Structures in Europe [2] has set benchmarks for achieving these objectives. In a study that was taken as the core of this project, academics, students and entrepreneurs from various European countries (including Portugal) were consulted, and spoke about the competencies that they hoped to find in the graduates. The results showed a clear convergence on the most important competences to be developed. Thus, the following areas of competence development were considered as priorities:
– ability to analyze and synthesize;
– ability to learn;
– ability to solve problems;
– ability to apply knowledge;
– ability to adapt to new situations;
– concern about quality;
– ability to work with information;
– ability to work independently and in groups.

To refer to this kind of competences, the term "cross-transversal" is not universally used; a wide range of assignments can be found, including "core", "nuclear", "essentials" or "common" skills. Tuning project reports, for example, refers to generic skills, distinguishing three groups [3]:

- Instrumental skills: cognitive, methodological, technological and linguistic abilities;
- Interpersonal skills: individual skills such as social skills (social interaction and cooperation);
- Systemic skills: skills and competences related to the whole system (combination of understanding, sensitivity and knowledge that allow the individual to see how the parts of a whole relate and group together).

Bypassing this classification, but including it, the competences mentioned in this document are considered transversal and transferable. Transversal because of they are necessary in different professional contexts and used by professionals from different areas. This means that they are relatively independent of the strictly professional background of those who use them. Acquired through experience and developed on the basis of feedback from others and apply in fields other than those that underpinned the process that led to their learning, so, they are transferable.

1.1 Generic Skills in a Public University (Portugal)[4]

The Laboratory of Transversal Skills (LTS), now known as the Laboratory of Languages and Transversal Skills (LLTS) has been constituted since the academic year 2009/2010 as a structure to support the acquisition of these competences within the scope of the curricular structure of this University degrees.

The main purpose of LLTS was to ensure the regular functioning of the Transversal Skills courses, which are framed in the Scientific Area of Transversal Skills.

The LLTS Coordination is responsible for the structuring and curricular development of the courses, as well as for other operating requirements, including those related to logistic and pedagogical conditions.

The following section describes the structure and mode of operation of the Transversal Skills courses and defines the framework and structure of the three groups of competences covered.

1.2 Transversal Skills Area – Reference Framework

1.2.1 Instrumental Skills

By definition, instrumental skills, although intrinsic in value because they are transferable to a variety of domains of personal and professional life, are the fundamental inputs (instruments) of outputs considered essential by the majority of respondents of the studies referred. Thus, the use of skills such as planning, time management or oral and written communication, for example, is positively and directly associated with the probability of acting effectively in most activities valued in the organizational environment.

This group also includes language skills, whose need for integration into the professional requirements profiles is accepted in a practically consensual way. Based on the acquisition of essential instruments of written comprehension, oral comprehension and written expression in a professional context, the courses include two of the foreign languages of greater diffusion, besides the Portuguese language.

The recognized need to acquire and develop methods of study and organization of academic work by students entering higher education recommend the integrated approach of these skills. Rather than replacing the scientific training associated with the curricula of each undergraduate, two courses of
academic work methods and techniques are intended to provide basic tools that enable students to engage with relevant information organization practices and activities in all specific areas of education.

1.2.2 Interpersonal skills

The skills that involve interaction with others are considered as a priority by the entrepreneurs and graduates who participated in the study of the Tuning Project and by the Portuguese participants [5]. Traditionally, it is assumed that interpersonal skills are developed, appropriately and spontaneously, as the student acquires maturity. This perspective would be justified in monoculture environments and / or with stable normative frameworks, which is far from characterizing today's societies, particularly with regard to the world of labour. Currently in organizations, teamwork predominates, within the same function or, as in the case of project teams, together with elements of other functions, with different hierarchical levels.

The ability to manage difficult situations in the field of interpersonal relations at work is also a requirement for full socio-professional integration of graduates. Current management practices that emphasize interdependence in intra-organizational activities, on the one hand, and increasing diversity in organizations, on the other hand, are factors that enhance the occurrence of conflicts. Thus, adapting and useful with these facets of organizational change requires that any professional become "competent in conflict management," [6] communication and argumentation.

1.2.3 Systemic Skills

The work approach today tends to be holistic, requiring the dynamic combination of up-to-date knowledge in an area of expertise with a global perception of work processes. "Total quality management" or "total customer service" are examples of some of the expressions that indicate the need to have an integrated view of the work. New contexts and the dynamics of decision-making and leadership require, more than ever, the ability to effectively identify and process information. This reality gives added emphasis to critical thinking as a key skill for interventions in the organizational environment.

Many of the decisions involve the ethical sphere. Ethically problematic behaviours seem to be induced by the complexity of organizational environments, which, on the one hand, hampers the very perception of the ethical nature of situations and, on the other hand, makes social norms in this field nebulous. Today, perhaps more than ever, prospective graduates need to reflect on the difficulties of ethical dishonesty and to acquire prescriptive guidelines that will lead them to engage in integrity in the personal and professional spheres.

Finally, the socio-professional fully integration of future graduates will also depend on their ability to cope positively with growing (cultural, age, linguistic, gender) diversity in workplaces and in society in general.

2 METHODOLOGY

The Case Study privileges the research in a natural context using different sources of information and the crossing of techniques without manipulation of variables. It is an exploratory study that can provide a basis for the definition of hypotheses or questions for future research perspectives.

The qualitative research methodology combines techniques in a case study approach, thus a preliminary documentary analysis was carried out to contextualize the problems associated with the contemporary teaching / learning model, with the adoption of the Bologna Process and the training needs, particularly in the field of transversal skills. Considering this domain, documents and reports have been analysed since the implementation of the LLTS for an organizational characterization, as well as a longitudinal analysis of the statistical data regarding the number of students, classes and teachers of transversal competences between the 2009/2010 school year and the year of 2015/2016, as shown in Table 1:
From the first year of operation of the LLTS until the year 2015/2016, there were fluctuations in the trends regarding the number of students, enrolment in the courses of transversal skills and consequently in the number of classes in operation. This variation accompanies three moments of restructuring in the LLTS:

- From the academic year 2009/2010 to 2012/2013 was a period of implementation and adjustment of the transversal skills program
- From the academic year 2013/2014 to 2014/2015 was a period of uniformity in the functioning of transversal competences
- In 2015/2016, a modality with some transversal skills in b-learning was started.

The total number of professors includes coordination and teaching functions of the transversal skills courses and follows the trends regarding the moments of LLTS restructuring, as can be seen in Fig. 1:

![Enrollment Trends at LLTS](image)

As a primary source of data collection we used the focus group [7] technique. The session was recorded with the consent of all the participants. The use of this technique has led to the possibility of collecting more detailed information on the research domain, considering the various contributions involved in the teaching of transversal skills. The focus group session was carried out with a random sample of a homogeneous group of eight teachers with professional experience in teaching transversal skills and their specific training areas, from six months to five years of teaching experience. These teachers are part of the University staff and of the Laboratory of Languages and Transversal Skills (LLTS).

The focus group lasted one hour and forty minutes, with the aim of collecting information that contributes to the definition of the profile of the professional of education of transversal skills in the scope of the requirements of this type of training. The topics of the discussion were previously established according to the objectives of the research and guided the analysis dimensions. In this sense, were based on the participants’ perception of the pedagogical needs in the teaching of transversal skills, dynamics and synergies in the teacher-student relationship, conceptions of education teaching in higher education, pedagogical methods and techniques and differentiating attitudes and values that characterize the teaching of these courses regarding the experience of each of the teachers.
The focus group guide was structured based on the objective of this exploratory study (Teaching, learning and evaluation strategies that differentiate the teacher of transversal competences) and had five questions:

- What teaching strategies do you use in class?
- Why these and not others?
- What activities do you do most with your students?
- What has changed in your practices?
- What characteristics differentiate the teacher from transversal competences from the traditional higher education teacher?

These questions allowed collecting the data for analysis considering the perceptions of the teachers, based on their discourses and their consistency and specificity in the scope of the collective discussion. Each participant was assigned a code that made it possible to differentiate the testimonies.

The proposal was to encourage participants to interact with each other and obtain as much information as possible about the subject proposed. The collected data were systematized through the discussion, whose treatment was aimed at establishing ideas and considerations within the theoretical and conceptual framework in the context of the teaching of transversal skills. The analysis of the collected data considered the meaning of the words spoken, the context in which the ideas were put, the frequency and the extent of the comments [8] and it was directed to the confrontation of different points of view of the participants in order to be relevant for the consolidation of results that allowed to explore dimensions in this field, producing a profile of competences that the teachers of this area have in the framework of new requirements in the field of higher education.

3 RESULTS

On the basis of values and areas of competence is a set of general principles on the implementation of the Profile. In addition, a set of factors that support the application of the Profile can be identified. These factors not only cover the possible use of the Profile in the teacher’s transversal skills training programs, but also broader issues related to school policies and practices and to the training of students.

Four key values in teaching and learning were identified as the basis for the work of all teachers. These core values are associated with areas of competence. The areas of competence are composed of three elements: attitudes, knowledge (knowledges) and capacities (know-how). A certain attitude or conviction requires a certain knowledge or level of understanding, followed by the ability to apply that knowledge in a practical situation. For each identified competence area, the attitudes, knowledge and capacities that support them are presented.

The Profile was developed around the following key values and areas of competence:

**Valuing diversity** - difference is considered a resource and a value for education.

The areas of competence within this core value relate to:

- Conceptions of flexible education;
- Teacher perspectives on student difference;
- Promotion of academic, practical, social and emotional learning of all students;
- Effective teaching methodologies in heterogeneous classes
- Model respect in the context of social relations and use a suitable language with all students and actors regardless of the subject area.
- Essential information on the diversity of students (due to support needs, culture, language, socio-economic condition, etc.);
- Students can be used as a resource to facilitate learning about diversity, for themselves and for their peers;
• Students learn in different ways and these can be used to support their own learning and that of their peers;
• The university population is constantly changing so diversity cannot be seen as a static concept.

Key skills to be developed within this area of competence include:
• Learn to learn from differences;
• Identify the most appropriate ways of responding to diversity in each situation;
• Take into account diversity in the curriculum implementation;
• To use the diversity of learning styles as a resource for teaching
• Be empathic with the diverse needs of students.

Curricular flexibility deserves reflection. It is not enough to change, it is important to check if the students learn more and better, if they develop their abilities. Learning is essentially a social activity; Practical, academic, social and emotional learning is equally important. Diversity must be respected, valued and understood as a resource that enhances learning opportunities and adds value to universities, local communities and society.

Working with others - collaboration and teamwork are essential methodologies for all teachers.

The areas of competence within this core value relate to:
• Work with a wide range of teachers from different areas, capacity for interaction and cooperation;
• Use evaluation methodologies for learning that take into account social, emotional and academic learning;
• Theoretical knowledge about the students' learning styles and the teaching methods that support the learning process;
• Behaviour management and classroom management methodologies;
• Management of the physical and social environment of the classroom to support learning;
• Ways of identifying and dealing with the different barriers to learning and their implications for teaching strategies;
• Teaching based on collaborative work strategies;

Professional and personal development - teaching is a learning activity and teachers are responsible for a lifelong learning.

The areas of competence within this core value relate to:
• Teachers as reflective professionals;
• Adaptability;
• Development of basic skills - in particular key competences - assessment and teaching strategies;
• Support the development of student's communicative skills;
• To develop in students the ability to "learn to learn";
• To form independent and autonomous students;
• Apply cooperative learning methodologies;
• Implement behaviour management methodologies that support social development and interactions in relationships;
• Implement learning situations where students can "take risks" and even fail, in a safe environment;
• The teacher has a fundamental influence on the students' self-esteem and, consequently, on their learning potential
• The strengths and weaknesses of the education system with which they interact must be recognized and understood by teachers;
• The system of cultures and policies of educational institutions, at all levels, which has an impact on training.

Key skills to be developed within this area of competence include, critically examining one's beliefs and attitudes and their impact on one's actions; Adopt an ethical practice at all times.

**Participation** - means that all students are involved in learning activities that are meaningful to them. Access to higher education alone is not enough.

The essential knowledge and levels of understanding that underpin this area of competence include:
• The theoretical and practical concepts and principles underlying higher education in global and local contexts;
• The ability to deconstruct, to understand current situations and contexts;
• Awareness of the importance of interpersonal skills;
• Impact of interpersonal relationships to achieve professional and personal goals.

4 CONCLUSIONS

Teaching is a learning activity, openness to learning new skills and the active pursuit of information and counselling is a positive attitude and not a weakness, a teacher cannot be an expert in all fields of education but aim to promote the skills and attitudes that facilitate the transition to the job market and enable career advancement [9]. From this perspective, the role assigned to university education is broadened.

In addition to technically empowering individuals to work in specific areas, higher education also prepares the individual to know how to move in the current and future job market, in order to optimize their abilities [10].

Exercising this role is only possible if the teacher is a reflexive professional, an agent of his own formation and stimulator of the student's formation, mediating the construction of knowledge with playful, reflexive, challenging and creatives activities, enabling students to become participant subjects, autonomous and critical.

It is considered that the results of this exploratory study make possible its replication in future researches at national and even international level, with the aim of introducing in the higher education plans the area of transversal skills and specialized training in this area for higher education teachers.

REFERENCES


