

## **Integrating transversal skills into higher education in health and social care**

**Nathalia Rosa<sup>1</sup>, Marta Benet<sup>2</sup>, Mar Carrió<sup>3</sup>**

<sup>1</sup>Department of Experimental and Health Sciences, Universitat Pompeu Fabra, Spain,

<sup>2</sup>Campus Docent Sant Joan de Déu, Spain, <sup>3</sup>Department of Experimental and Health Sciences, Universitat Pompeu Fabra, Spain.

---

### ***Abstract***

*International and national agencies have stated the need to shift the focus towards teaching-learning strategies that work on transversal skills throughout the training journey. It is especially relevant in health and social care, where these skills are usually taken for granted. These competencies are also essential in tackling gender inequities in health and social care, ensuring that the HE system does not prolong entrenched gender bias. To face these challenges, the ERASMUS+ project "ITSHEC - Integration of transversal skills into health and social care, higher education, and the curriculum" is developing practical tools to support opportunities to acquire and develop key competencies in different educational environments. The resources will address learning outcomes related to critical and creative thinking, interpersonal/socio-emotional and citizen-oriented skills and learning to learn.*

**Keywords:** *Transversal skills; health and social care; teaching-learning strategies; learning outcomes.*

---

## **1. Introduction**

The changing environment of today's societies requires constant transformation and adaptation, and professionals must continue learning to learn skills actively to adapt to changes and complexity. In the current situation and the future, the healthcare and social professions face the challenge of acting in complex and unpredictable problems: they are faced with an ever-ageing population, epidemiological transitions to chronicity, pandemic outbreaks (such as the currently ongoing Covid-19 pandemic), and increased social inequalities with the associated vulnerabilities, among other issues. Besides, Europe faces the global challenges of climate change and environmental degradation (green deal), digitalization while ensuring that technology serves the people, and inclusion and reduction of inequalities. All these challenges require professionals who can analyze situations using critical and creative thinking, make decisions when faced with large amounts of information and that involve the patient/user, and manage difficult (and mundane) situations with appropriate interpersonal and emotional skills. To meet these challenges, it's an important start to improve the training of healthcare and social services professionals in the area's transversal skills throughout their undergraduate and postgraduate training journeys.

It is the context of the ERASMUS+ project ITSHEC - Integration of transversal skills into health and social care, higher education and the curriculum, which aims to improve the training of healthcare and social services professionals in transversal skills throughout the undergraduate and postgraduate training journey. ITSHEC is a transnational cooperation project between higher education and pedagogical innovation institutions coordinated by The Universitat Pompeu Fabra (UPF) in Spain. The partner institutions are The ESIMar Nurse School of Barcelona, the Metropolia University of Finland, the Split University of Croatia and Immersium Studio (specialized in immersive education).

Based on recognizing the relevance of transversal skills in addressing the challenges of the future, this project is developing practical tools to support opportunities to acquire and develop key competencies in different educational environments: face-to-face training, simulation and e-virtual learning. Furthermore, it benefits future professionals, patients, and clients since professionals with these skills can offer better healthcare and social care based on a patient/user-centred approach. In this paper, we present one of the project's main products, a Methodological Guide that gathers the most appropriate and innovative teaching-learning strategies to support the development of transversal skills. It also includes a pedagogical framework and an evaluative framework for transversal skills.

## **2. Methodological Guide to Develop Transversal Skills**

The Methodological Guide entitled "Learning strategies to promote transversal skills on health and social care studies" is the first product of this project. It has been created to offer

different strategies for developing students' transversal skills, specifically critical and creative thinking, interpersonal/socioemotional and citizen-oriented skills and learning to learn, particularly in healthcare and social care. The primary use of the methodological guide is to assist lecturers in planning, to integrate it into their teaching activity, and evaluating the improvement of transversal skills in undergraduate and postgraduate students.

### ***2.1. Pedagogical Framework for Transversal Skills***

One of the gaps identified in the European Higher Education Area (EHEA) is a lack of implementation of teaching-learning strategies to work on transversal skills throughout the overall educational continuum in healthcare and social care. This situation relates, among other factors, to the absence of a framework that defines the gradation of skills development: although there are numerous classifications and definitions, it is necessary to establish a gradation by levels that state the degrees of skills development and associated specific learning outcomes.

In this sense, the first part of this material is a Pedagogical Framework intended to support lecturers who strive to implement transversal skill training into their subjects, courses, and modules. Additionally, the guide aims to help plan the lessons, specific activities, and learning outcomes that intend to work on transversal skills. We have defined different dimensions for each skill with their respective learning outcomes, based on previous reports, studies, pedagogical references, and European qualifications frameworks, especially the European Qualifications Framework (EQF) and the Finnish National Framework for Qualifications Other Competence Modules (FiNQF).

We also present a level scale that seeks progressive and continuous integration of transversal skills training throughout the academic and professional journey (Bacigalupo et al., 2016). It also facilitates a student-centred approach as it allows the starting point for each student (individual level of development) to be assessed.

To illustrate what includes the Pedagogical Framework, "Table 1" shows the dimensions that have one of the transversal skills of the ITSHEC project (interpersonal/socioemotional) and the associated learning outcomes.

**Table 1. Transversal knowledge, skills, and learning outcomes in ITSHEC.**

<b>Skills</b>	<b>Dimensions</b>	<b>Learning outcomes</b>
Interpersonal /socioemotional	Communication	<p>Able to express ideas clearly and fluently.</p> <p>Able to use precise and descriptive/content-specific vocabulary to enhance the topic or message.</p> <p>Able to share information in an organized and interesting way.</p> <p>Able to share an analysis of the main message to interpret, synthesize and/or evaluate the meaning of the content to draw a logical conclusion about the topic.</p> <p>Able to show empathy and use non-verbal communication and active listening.</p>
	Reflection and responsibility	<p>Able to self-reflect, evaluate one's own actions and emotions, and take responsibility for own actions.</p> <p>Has the ability to develop improved professional and social-emotional responsibilities.</p> <p>Able to perform tasks efficiently and carefully.</p> <p>Able to persevere in the face of difficulties.</p>
	Relationships	<p>Able to develop positive and emotionally safe interactions and co-create teamwork.</p> <p>Able to reflect and manage emotional and self-regulation and to show empathy in professional relationships.</p>
	Partnership, network and cooperation	<p>Able to work cooperatively with others: listens to others, incorporates what others say, encourages peers' participation, engages in group decision making, helps peers selfishly, and accomplishes shared goals.</p> <p>Able to act and cooperate with others autonomously under structured conditions and to take account of various social roles and emotions in various contexts</p> <p>Has the ability to build network and partnerships in changing interprofessional and disciplinary (projects) teams and innovate/reform it into a complex and unpredictable world.</p>

Skills	Dimensions	Learning outcomes
		Able to develop leadership by understanding the needs of others and being aware of their feelings and thoughts; and facilitate collaborative and participatory problem-solving.
	Conflict management	Has the capacity to create a non-discrimination atmosphere and to handle demanding situations of conflict. Able to facilitate conflict resolution, remain calm under pressure and control emotions in conflict situations.
	Cultural sensitivity	Able to evaluate and develop one's cultural awareness. Has the knowledge, awareness and acceptance of other cultures and the willingness and capacity to understand people from different backgrounds and embrace diversity.

## 2.2. Teaching-learning methodologies and evaluation of Transversal Skills

The project team has conducted a detailed literature review to identify the principal learning methodologies used to work with transversal skills. From this previous review, we choose six methodologies that proved to be suitable for improving these skills, as well as methodological aspects to be considered when the objective of the training is to foster the development of students' transversal skills:

1. Problem-based learning is a widespread methodology in higher education that uses realistic problems as a starting point for the learning process. The main benefits of using PBL are that it promotes deep learning (Dolmans, 2015) and long-term knowledge acquisition (Schmidt, 2011). It is also an excellent context for developing transversal skills (Carrió, 2016; Rodriguez, 2019).
2. Roleplaying is an experiential teaching-learning strategy that encourages student participation by proposing different cases and scenarios in which the students must develop specific roles (different from their own). (Collins, 2004; Shearer and Davidhizar, 2003)
3. Virtual Reality environments allow students to be immersed in a highly realistic, vivential first-person learning experience that only requires a VR headset. As a result, VR environments are emerging as a fundamental learning methodology for distance and life-long education (Eckert and Mower, 2020).

4. Cooperative learning is a pedagogical practice that involves students working together to achieve goals that would otherwise not be performed or completed working alone. It is a recognized way to promote learning in different kinds of subject areas and develop transversal skills (Barkley et al., 2014).

5. Simulation in health sciences is defined as a tool that creates a situation or environment to allow people to experience a representation of a real health care situation for practice, learning, evaluation, testing or further investigation of human actions in a safe environment (McGaghie et al., 2010; Lopreiato et al., 2016).

6. Gamification uses game elements outside the context of a game (Bedwell et al., 2012) to improve and enhance students' learning outcomes (Landers, 2014). This methodology influences students' motivation levels, increasing their participation in activities and the acquisition and integration of learning outcomes (Fitz-Walter et al., 2011).

The guide also brings specific content about including a gender perspective in teaching and learning. We firmly understand that having transversal skills and related learning outcomes in the curriculum should involve a gender-sensitive approach. Gender mainstreaming is a fundamental aspect of the quality of the education provided, and this guide also seeks to encourage teaching with a gender perspective. A professional with gender equality skills requires commitment, methodological expertise, and specialist knowledge. In addition, it stimulates students' critical thinking capacity, providing them with new tools to identify social stereotypes, norms and roles related to gender. Therefore, the gender perspective should embed any learning activity that seeks to develop students' transversal skills (WHO, 2007; European Institute for Gender Equality, 2019).

Besides the contents mentioned above, the guide includes a methodological framework to evaluate the development of students' transversal skills. The evaluation framework consists of a multi-method approach that integrates multiple perspectives (student, teacher, peer-to-peer) and tools (rubrics, checklists, scales, evaluative argumentation, portfolio, among others). Furthermore, it explains how to plan, design, and use the different methods and tools for evaluating transversal skills. Including this evaluation framework in this guide is particularly relevant since it will facilitate the incorporation of the evaluation in the design of the training activities (Boud, 2020).

### ***2.3. Student's perception of Transversal Skills***

Finally, since in ITSHEC project cooperation and co-creation is elementary, this guide presents a final chapter with the results of seven focus groups with more than 30 students from different healthcare and social care degrees (medicine, nursing, dental medicine, human biology, social sciences, social work, etc.) and various European countries. The main

objective was to explore their engagement and preferential teaching-learning approaches and to adapt and optimize the educational content and methodologies.

The results indicate that students perceive that curricula and training programs for professionals have gaps in their approach to transversal skills: they are excessively centred on the transmission of knowledge per se rather than on the teaching-learning strategies, which are fragmented and limited to subjects and/or disciplines. This fragmentation is also present in professional practice in the health and social services, where there is not enough implementation of interdisciplinarity and the service-user/patient-centred approaches in everyday practice. It is also evident that the acquisition and development of transversal skills and the formal, structured knowledge obtainment for each area and discipline are fundamental during university studies. According to the students' perceptions, this transversal knowledge is essential for training effective professionals.

### 3. Conclusion

Higher education is a versatile process that offers students the possibility to develop their knowledge, abilities, and attitudes to participate actively in broader society, be active citizens, and develop successful professional careers. Therefore, the development of transversal skills should be a continuous, participatory, and dialogical process. In this sense, we need new teaching-learning approaches to address transversal skills. These approaches will require a change in the role of teachers, from being knowledge transmitters to being learning facilitators and a playful attitude on the part of students. It is essential to recognize the transversal skills as assessable learning objectives here. For this reason, it is necessary to introduce assessment strategies for these skills into the curricula, with clear and accessible guidelines for students, including student involvement in the assessment process (tools for self-assessment and peer evaluation). We assume that if lecturers employ more appropriate (adapted to target needs) training and assessment strategies, students could achieve a higher degree of development in critical thinking, interpersonal skills, and learning to learn.

### References

- Bacigalupo, M., Kampylis, P., Punie, Y., Van den Brande, G. (2016). *EntreComp: The Entrepreneurship Competence Framework*. Luxembourg: Publication Office of the European Union, 10, 593884.
- Barkley, E., Cross, P. & Major, C. (2014) *Collaborative Learning Techniques: A Handbook for College Faculty*, 2nd Edition. Jossey-Bass.
- Bedwell, W.L., Pavlas, D., Heyne, K., Lazzara, E.H., Salas, E. (2012). Toward a taxonomy linking game attributes to learning: An empirical study. *Simulation & Gaming*, 43(6),729-760. doi:10.1177/1046878112439444

- Boud, D. (2020). Challenges in reforming higher education assessment: a perspective from afar. *Revista electrónica de investigación y evaluación educativa*, 26(1), art. 2m. <http://doi.org/10.7203/relieve.26.1.17088>
- Carrió, M. Agell, L., Baños, J.E., Moyano, E., Larramona, P., Pérez, J. (2016). Benefits of using a hybrid problem based learning curriculum to improve long term learning acquisition. *FEMS Microbiology Letters*, 363, 1-7.
- Collins, J. (2004) Education techniques for lifelong learning: giving a PowerPoint presentation: the art of communicating effectively. *Radiographics*, 24(4),1185-1192. doi: 10.1148/rg.244035179.
- Dolmans, D., Loyens, S., Matcq, H. & Gijbels, D. (2015). Deep and surface learning in problem-based learning: a review of the literature. *Advances in health sciences education*. Doi: 10.1007/s10459-015-9645-6.
- Eckert, D., Mower, A. (2020) *The effectiveness of virtual reality soft skills training in the enterprise: a study*. Retrieved from: <https://www.pwc.com/us/vlearning>.
- Finnish National Agency for Education (2018). *Finnish National Framework for Qualifications* (FiNQF). Retrieved from: <https://www.oph.fi/en/education-and-qualifications/qualifications-frameworks>.
- Fitz-Walter, Z, Tjondronegoro, D. & Wyeth, P. (2011) Orientation passport: using gamification to engage university students. In *Proceedings of the 23rd Australian Computer-Human Interaction Conference*, ACM, Australian National University, Canberra, ACT, 122-125. Doi: <https://doi.org/10.1145/2071536.2071554>
- European Institute for Gender Equality (2019). *Gender mainstreaming and institutional transformation* [Internet]. Retrieved from: <https://eige.europa.eu/gender-mainstreaming/toolkits/gender-institutional-transformation/gender-mainstreaming-and-institutional-transformation>
- WHO (2007). Integrating gender into the curricula for health professionals: Meeting Report. Geneva, Switzerland: Department of Gender, Women and Health, p. 3–32.
- Landers, R. N. (2014). Developing a theory of gamified learning: Linking serious games and gamification of learning. *Simulation & gaming*, 45(6), 752-768. Doi: 10.1177/1046878114563660.
- Lopreiato J O. (2016). *Healthcare Simulation Dictionary*. Rockville, MD: Agency for Healthcare Research and Quality. AHRQ Publication No. 16(17)-0043.
- McGaghie, W.C., Issenberg, S.B., Petrusa, E.R., Scalese, R.J. (2010). A critical review of simulation-based medical education research: 2003-2009. *Medical education*, , 44(1), 50-63. doi: 10.1111/j.1365-2923.2009.03547.x.
- Rodríguez, G., Pérez, N., Núñez, G., Baños, J. E., and Carrió, M. (2019). Developing creative and research skills through an open and interprofessional inquiry-based learning course. *BMC medical education*, 19(1), 134
- Schmidt, H. G., Rotgans, J. I., & Yew, E. H. J. (2011). *The process of problem-based learning: What works and why*. *Medical Education*, 45(8), 792–806. <https://doi.org/10.1111/j.1365-2923.2011.04035.x>
- Shearer, R., & Davidhizar, R. (2003). Using role play to develop cultural competence. *The Journal of nursing education*, 42(6), 273–276.

The European Qualifications Framework for Lifelong Learning (EQF). (2008) Luxembourg: Office for Official Publications of the European Communities. 2008. [http://www.ehea.info/media.ehea.info/file/Framework\\_for\\_qualifications/69/0/EQF-LLL-2008\\_596690.pdf](http://www.ehea.info/media.ehea.info/file/Framework_for_qualifications/69/0/EQF-LLL-2008_596690.pdf)