



ACADEMIC SERVICE LEARNING IN THE ERA OF DIGITAL READINESS



Title:

Academic Service Learning in the era of digital readiness

Graphic designer:

Alessandro Bellucci - Pluriversum Comunicazione visiva

Printed by Pixartprinting

ISBN: ??

web ISBN : ??

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Co-funded by the
Erasmus+ Programme
of the European Union

ENHANCE - Enhancing Career and Service
Learning in Higher Education
2021-1-ES01-KA220-HED-000031128

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Summary

Prologue: Bridging Academia and Community in a Digital Age6

.....7

Chapter 19

Academic Service Design for Community Service-Learning9

→ Andrea Marconi, Arianna Bartoletti 9

1.1 Embedding Service Learning into University9

1.2 Key areas of the academic service-learning: motivations, engagement, learning outcomes, evaluation17

1.2.1. Motivation 17

1.2.2 Engagement 17

1.2.3 Creating a Service Learning project 18

1.2.4 Learning outcomes 21

1.2.5 Evaluation 22

References 25

Chapter 2 31

Academic Service Design for Community Service Learning31

→ María-Luisa Rodicio-García, María-Paula Ríos-de-Deus, Laura Rego-Agraso 31

2.1 Introduction31

2.2 Service Learning as a methodology in the university context33

2.3 Service-Learning and education in values: the ethical training of students35

2.4 The design of Service Learning projects: strategies for developing competences in Higher Education37

2.5 The evaluation of Service-Learning experiences as a key element in their quality42

2.6 Conclusions43

References 46

Chapter 3 49

Community service learning: A powerful learning module for key skills49

→ Bora Balun, Yilmaz Oçay 49

3.1. Service Learning: Conceptualization, main components and impact49

3.2. Service learning though relational, pedagogic, and academic competences: implications based on evidence51

3.2.1. The relation with the trainer/tutor 51

3.2.2 The role of learning communities 52

3.2.3 What do students learn? 53

3.3 Setting up a service: the role of partnerships56

References 57

Chapter 4	61
Community Service Learning. Experience and reflections for career learning civic engagement	61
→ Pinelopi Vergou, Anna Boubouzioti, Panos Manetos	61
4.1 Community Service Learning: Characteristics and learning experience	61
4.2 Career learning, active learning and competence	64
4.2.1 Community Social learning is experiential research: Performing Participatory Action research.	64
4.3 Civic engagement and Social Responsibility	67
4.4 Similarities and differences between volunteering and Community Service- Learning (Service Learning).	
Converting volunteering actions into Community Service-Learning	68
References	70
Chapter 5	73
Learning in the era of digital readiness.....	73
→ Paulina Spanu	73
References	85
Chapter 6	87
Validation and recognition of community services learning in the academy educational pathway: the micro-credential system	87
→ Marta Agueda, Luis Carro.....	87
6.1 Educational space.....	88
6.2 Non-formal and informal learning validation	92
6.3 Micro-credentials	95
References	99

Prologue: Bridging Academia and Community in a Digital Age

→ By Luis Carro, University of Valladolid

In the transformative landscape of higher education, a new paradigm emerges at the crossroads of technological advancement and community engagement. “Academic Service Learning in the Era of Digital Readiness” delves into this intersection, exploring how service learning – a pedagogical approach that integrates community service with academic instruction and reflection – is evolving in the digital age.

As we embark on this journey, we witness a world where the traditional boundaries of classrooms are being redrawn. Technology has not only transformed how we learn but also expanded where and with whom we learn. This evolution calls for a reimagining of service learning, ensuring it remains relevant, impactful, and inclusive in our increasingly digital society.

Our exploration begins with a reflection on the past two decades, marked by significant shifts in higher education. The economic crises, global health challenges, and evolving societal needs have prompted a reevaluation of the role universities play in fostering active, democratic citizenship. This prologue sets the stage for a comprehensive understanding of how service learning, as an educational strategy, responds to these changes, harnessing the power of digital tools to enhance learning experiences while strengthening community ties.

Through the pages of this document, we invite readers to explore various facets of academic service learning. From its theoretical founda-

tions to practical implementations, the chapters provide a rich tapestry of insights, experiences, and reflections. We examine the integration of digital technologies in service learning, ponder its impact on student engagement and career development, and explore innovative practices that are reshaping the educational landscape.

As we navigate these chapters, we are reminded of the dual purpose of higher education: to impart knowledge and to cultivate a sense of civic responsibility. In this era of digital readiness, academic service learning stands as a beacon, guiding institutions towards a more engaged, empathetic, and educated society.

This prologue, therefore, is not just an introduction. It is an invitation to educators, students, policymakers, and community leaders to engage in a meaningful dialogue about the future of higher education. It encourages us to envision a world where learning transcends the confines of physical spaces and where education is a collaborative, community-oriented journey.

Let us embark on this explorative journey, understanding how academic service learning can bridge the gap between academia and community in our digitally connected world.

This prologue aims to capture the essence of the document and to intrigue and inform the reader about the comprehensive exploration of service learning in the digital era.



Academic Service Design for Community Service-Learning

→ Andrea Marconi, Arianna Bartoletti

1.1 Embedding Service Learning into University

Over the last two decades, there has been a growing emphasis on the transformation of higher education within Europe. The economic crisis, the pandemic threat and citizen disengagement in the European Union brought the Commission to recommend the Member States to promote active and democratic citizenship through formal Higher Education. Starting from this assumption, the **future of Higher Education is strictly related to the involvement of the university in the society**. The social impact of academic activities should be valued in Higher Education institutions' vision and mission because the sense of commitment to European goals such as the knowledge based economy, the promotion of the triangle of knowledge and the promotion of an intelligent, inclusive and sustainable society **passes through the way students' approach their studies and academic career**. These needs imply a transition from a kind of University recognized as entrepreneurial university to a new one that could be considered as a civic university (Riviezzo et. al, 2019)

In this context, Service Learning (Service Learning) and Community Service Learning have proven to be powerful didactic methodologies for achieving this transition in didactic and student services provision. Furthermore, Service Learning is able to support the improvement of the academic experience not only as an investment for employability but as an opportunity to enrich with meaningful experiences the period that students spend in the academic community. As many years ago Ernest Boyer challenged higher education in the USA to reconsider its mission (Boyer, 1994), universities can exploit the purposes of their mission by embedding Service Learning in the curricula. Since Universities started to rethink and implement their mission, Service Learning is widely accepted as **“a form of experiential education in which**

students engage in activities that address human and community needs together with structured opportunities intentionally designed to promote student learning and development” (Jacoby, 1999).

Service Learning differs from internships and practicum experiences, as well as it is different from volunteering. If we look at the volunteering programs in Higher Education, it is possible to find out that they can share goals with Service Learning, since both these programmes are intended to benefit both students and the community. Several differences occur when we look at the structure of the Service Learning with a focus on the curricula or on mini-credentials: volunteering programs do not involve time intentionally structured for reflection and communication about the student's service experience; furthermore, the meaning derived from Service Learning experiences and their benefits involve both students and community partners. Service Learning is also distinct from co-op and/or practicums due to the focus of Service Learning on developing civic responsibility and a service orientation compared with the focus of co-op on developing students' professional skills.

Service Learning is characterised by three elements:

- a) solidarity activities have a specific reference to a need present in the community and what has been done is not done for, but with the members of the community in which one intervened.
- b) the students have an active role, as protagonists, in all phases of the project, from its conception to its evaluation.
- c) solidarity actions are fully integrated into the curriculum and allow for better, more motivating and active learning.

As the characteristics of Service Learning underline, by designing these programs it could be possible to promote the development of social emotional skills in academic students, which according to the literature (Wang, et. al, 2011; Halimi, et. al, 2021) can be a promising factor to predict future academic outcomes (Davis, et. al. 2014). While shifting the paradigm from the development of students cognitive and technical skills, to the improvement of Social Emotional Learning through service to the community, Service Learning is recognized as: **“[...] a course-based, credit-bearing educational experience, in which students (a) participate in an organised service activity that meets identified community needs and (b) reflect on the service activity in such a way as to gain further understanding of course content,**

a broader appreciation of the discipline, and an enhanced sense of civic responsibility (Bringle & Hatcher, 1995, p.112). Designing Service Learning programs can also become a strategy to avoid the risk of alienation, proposed by Mann (2001), and promote engagement. Students who are engaged in Service Learning programmes develop resilience through experiential and emotional learning practices activities. Participation in Service Learning gives students “support and opportunities that buffer the effect of adversity and enable development to proceed” (Bernard, 2004). Regarding the concept of alienation in Higher Education, Mann described it as “the estrangement of the learner from what they should be engaged in, namely the subject and process of study itself” (Mann, 2001) and recommends five ways in which academics can help students become more engaged in the learning community:

1. Solidarity dissolves the separation between ‘them’ and ‘us’;
2. Hospitality makes students feel welcome and at home;
3. Safety in terms of providing safe, supportive environments where students are accepted and respected;
4. Redistribution of power - giving students power over their own learning
5. Criticality - being aware of/examining the conditions in which academics and students work.

In this perspective *“learning becomes social, emotional, cognitive, multicultural and interpersonal”* (Simons, Cleary, 2006) and this can happen because Service Learning helps *“students develop skills that help them observe, identify and distinct between other people’s emotions, manage (perceive, evaluate and express) their own emotions, establish and maintain positive relationships, make responsible decisions, cope responsibly with new interpersonal situations, enhance academic performance”* (Elias, 1997).

The collaborative dimension of learning through Service Learning is unanimously recognized as one of the best conditions in terms of teaching effectiveness and an important educational dimension also for ethical and social measures (Tapia, 2010). The public space where experiences, know-how, cultural frameworks, interpretative paradigms of social phenomena meet and collide to create opinions, consensus and in some cases empowerment of young people to acquire awareness about their future is the place that we define as the cognitive spirit of a learning community (Flower, 2008). In Higher

Education, we can assume that Service Learning is a form of informal learning based on “the purposeful creation of situations from which motivated learners should not be able to escape without learning and developing” (Cowan, 2002).

The reference literature highlights a range of different types of Service Learning programs that can be embedded into university courses, as presented in the following chart (Tab.1).

Examples of service-learning in university courses

Here below, some examples of Modes of Service-Learning (Delve et.al, 1990; Jacoby, 2014)..

- **Direct Service.** Peer tutoring, defined as “a class of practices and strategies that employ peers as one-on-one teachers to provide individualised instruction, practice, repetition, and clarification of concepts” (Utley, Mortweet, 1997), involves academic students in direct relation with other students in order to overcome possible difficulties due to specific matters or subjects. In order to improve these abilities to peer and mutual support, it is important to involve student engagement with, for example, the client population on an interpersonal level.. Examples of direct service include tutoring, reading to the elderly, coaching a youth activity.

- **Indirect Service-Learning.** Managing project groups or pilot action in favour of the communities, academic or local, is a practice that could provide good results in terms of students’ performance. Students fulfil a community need identified by a community partner without engagement with the client population. Examples of indirect service may include planning fundraising activities for a community organisation, developing a social media strategy for a community action group, designing posters or flyers for a local non-profit, building low-income housing, cleaning a community park.

- **Research-Based Service-Learning.** A students’ collaboration with a community partner to conduct research that addresses community issues or needs, could increase the awareness of the social impact of a student’s academic path. Partners may be non-profit groups, government agencies or community leaders.

- **Advocacy-Based Service-Learning.** Public speaking and Critical thinking should be cultivated as skills from before academic studies but, once the student arrives at University, these capabilities become essential for having success in their academic career. Examples of this type of service would include planning and executing public forums that address community issues, writing and distributing information that illuminates a problem experienced by the community, helping to draft legislation that helps solve a community need, organising a letter-writing initiative that addresses a social issue.

Along the last paragraph, we identified two trajectories of tutoring services approach, both related to the area of civic engagement:

- effective partnerships between students, faculty and community members;
- effective integration of international students in the main aspects of the academic practices for students’ well-being.

Tab. 1. Examples of service-learning in university courses

In Service Learning processes, the initial planning phase, the activities carried on and the final evaluation are intentionally linked with the learning contents with the purpose to improve in students, teachers and citizens a sense of civic engagement and responsibility. Further-

more, many experiences all around the world demonstrated that these processes of co-creation and deep engagement promote positive behavioural changes on societal issues and in students' performance. Astin's theory of student involvement builds on a longitudinal study diligently showing that "the factors that contributed to the student's remaining in college suggested involvement, whereas those that contributed to the student's dropping out implied a lack of involvement" (Astin, 1999). Similarly, Spady argues that students' retention must imply more by providing them with experiences that affect the intrinsically, meaningful spheres of their lives as human beings (as opposite to just students) rather by just attempting to modify the academic reward structure itself (Spady, 1970).

In recent years, a variety of studies have shown a range of achievement-related benefits from Service Learning, including improved attendance, higher grade point averages, enhanced preparation for the labour market, enhanced awareness and understanding of social issues, greater motivation for learning, and heightened engagement in prosocial behaviours. Research has shown that Service Learning is a promising strategy for dropout prevention (Billig, 2000; Billig, Root, Jesse, 2005; Bridgeland, Di Iulio & Wulsin, 2008). A robust corpus of literature underlies that Service Learning is a key component of the graduate education program. Service Learning activities address various components or strategies identified as important to dropout prevention such as engaging teaching and curricula, connections between universities and labour market, adult and student relationships, communication skills, and community engagement. **Service Learning is a form of experiential learning that combines relevant community service experiences with reflective exercises for a powerful learning experience that aligns with the course curriculum.**

The review of Monika GruService Learningytė (2021) demonstrates the experiences in adapting the concept of Service Learning to European and Lithuanian socio-educational situations as well as the living need in updating, adjusting and revitalising Service Learning as an educational innovation to meet the expectations set for Higher Education and challenges faced in real-world practice. Fruitful evidence of the growing impact that Service Learning is gaining in the European Higher Education System came from the studies conducted by the European Observatory of Service Learning in Higher Education. In a recent study (2021) involving different European countries, researchers mapped and analysed several projects on the incorporation of Service Learning

in universities. **Evidence confirmed that Service Learning contributes to improving the quality of the didactics, the effectiveness of students' services and students skills' portfolio.** The studies, also, demonstrated that Service Learning can be integrated into courses in **any discipline**. For example, in a history course, students might develop exhibits for a local museum. In civil engineering, students might work with a local heritage organisation to determine the potential of a vacant building for redevelopment.

Embedding Service Learning in universities seems to affect all the university missions but also all student services such as career guidance and tutoring. In tutoring's provision, students and tutors are engaged in Service Learning through an experiential and informal method in which peer and senior students are involved in activities addressing real human, social and environmental needs, thereby contributing to reach the awareness to be part of the academic community. The most common tutoring practices enrich personal attitudes at all levels, enhancing responsibility and critical thinking, problem solving, social commitment, peer tutoring and civic reflection. The service becomes an integral part of curriculum development and a real strength to promote enriching experiences in academia for students. **It brings together students, academics and the community, allowing them to become resources, problem solvers and partners in the continuous improvement of students' performance.**

Service Learning can also be a strategy to use in order to promote Career Management Skills for students. Career Management Skills are defined as a set of competences (knowledge, skills, attitudes) that enable citizens at any age or stage of development to manage their learning and work life paths (ELGPN, 2015). According to the newest and updated European Framework on Career Management Skills¹ (CMS), Discovering myself, Developing my strengths, Exploring new horizons, Building relationships, Monitoring and Reflecting, Planning your Career are the core areas when we look at the provision of career guidance and when we look for specific catalogues of soft skills required to the labour market. Concerning the capability to improve such skills, Service Learning would be very helpful in improving resilience when students have not yet learned or assimilated effective methods of coping with external and internal pressures. .

Another relevant domain where Service Learning is called for interven-

1 <https://www.careersproject.eu/index.php>

tion concerns the Career Service: employability of graduates needs to be assessed, measured, and improved. Career services in Universities provide programmes and support for students to equip them with a more complete combination of skills, not exclusively focused on 'hard skills'. Transversal or Soft Skills or Career Management Skills - to be close to the topic - are developed as a successful predictor in the job search. Service Learning can improve motivation and transversal skills in students and this assumption turns Service Learning into an Academic Career Service prospective for promoting employability through transversal competences (2022). Many studies demonstrated that the involvement of academic students in **Service Learning programmes or activities can be both useful to engage students in learning, ensuring that curricula become more attractive and interactive and promoting students as active workers and job seekers,engaging the students with both the industries and communities**. Many authors and career guidance practitioners all around the world consider Service Learning a relevant opportunity for preparing students for future work (Savickas, 1999; Savickas et al., 2009; Simons & Cleary, 2006). For example, Warchal and Ruiz (2004) suggest that Service Learning "may offer students the opportunity to experience success in career settings and make informed choices about employment options" (p. 91) and "are a significant factor in alumni postgraduate employment" (p. 101). These studies provided robust evidence about the capability of Service Learning to improve awareness (Mitchell, Rost-Banik,2019) of self that strongly refers to several areas of the CMS model.

As a form of experiential learning, Service Learning is a possible link between theory and practice. Service Learning occurs to let learning happen, turning academic knowledge to hands-on practices. Academic content can be tested and understood into real-life environments that are able to facilitate students in transmitting academic knowledge into practicalities (Billig, 2000). Service Learning experience works to extend students' knowledge and possible career pathways (Billig, 2011). Furthermore it provides a practical approach for learning and guidance because it offers a basis for the students to reflect and plan further studies. In conclusion, **Service Learning as informal education provides multiple points of views and helps conceptualise life-long learning.**

Last but not least, Service Learning contributes to the Social Dimension of Higher Education, significantly. Service Learning provides students the opportunities for meaningful learning experiences through the en-

gagement with community in fulfilling reciprocal needs and building up integrated communities of practice (Thomson, Smith-Tolken, Naidoo, & Bringle, 2011). The community engagement at the core of the Service Learning approach provides useful practices and a cultural environment exploitable for academic behavioural changes in light of an effective pathway for the so-called Third Mission. In order to identify and expand collaboration with civic stakeholder groups, Service Learning can provide useful recommendations for any academic community of practice.



1.2 Key areas of the academic service-learning: motivations, engagement, learning outcomes, evaluation

1.2.1. *Motivation*

According to previous paragraphs, motivation and cognition are reciprocally related over time. **Motivation** is a driving force for learning activities. A motivated person learns in the available time so that they can achieve their learning goals (Riswanto, Aryani, 2017). Someone who is motivated to learn, realises and understands their goals and is stimulated to learn. Learning outcomes are determined by many factors, one of these factors is the intrinsic motivation that is pretty much constant rather than the extrinsic motivation that tends to be temporary. Many studies on scholastic performance and resilience demonstrated the correlations of student's performance and student's personal and psychological beliefs about themselves, others and the world around them (Boyer, 2005). Learning motivation involves both external/extrinsic motivation and internal/intrinsic motivation. A person with extrinsic motivation is driven to achieve goals by external incentives such as rewards and punishment. In contrast, intrinsic motivation is driven by internal factors such as personal interest or specific attitudes. Internal and external factors determine students' motivation which, in turn, is one of the main drivers that determines the success rate of student learning (Riswanto and Aryani, 2017). Motivation is important in determining how many students will be learning from a learning activity or how much they would absorb the information presented to them.

1.2.2 *Engagement*

According to this assumption it is also crucial to remember the relevance of **academic engagement** in the process of students dropping out and the strong associations between engagement and students' achievement outcomes. On the contrary, we can argue that bored, unmotivated, and uninvolved students are disengaged from academic and social aspects and by consequence are at risk of dropping out or at least to poor academic performance. In defining the personal aspects that affect the learning motivation one should be considered at first. Academic engagement addressed the attention of many studies (Astin, 1984; Tin-

to, 2012) and it became a priority for stakeholders in Higher Education with the purpose to increase engagement and, consequently, to reduce dropout. So, following a simple logical interpretation of the mainstream in the features of students' performance and students' dropout, we can argue that academic engagement is the link that could support further reflection not only in future empirical research but in designing services, too. In order to design a promising learning environment, the main assumption of constructivist approaches could be summarised as follow: if each learner individually and socially constructs meaning as he/she learns, then he/she does not passively absorb information but rather is engaged in meaningful learning by actively creating and modifying his/her knowledge structure (Riswanto and Aryani, 2017).

1.2.3 Creating a Service Learning project

The conceptualization of academic Service Learning included a considerable range of activities that promote an environment for the development of Career Management Skills, for a social dimension of academic learning, for the empowerment of civic skills and the improvement of academic performance (Bringle and Clayton, 2012). A typical scheme for creating a Service Learning project includes basic phases as follows:

- creating learning goals,
- identifying targets,
- developing project ideas,
- planning the project,
- implementing the plan,
- measuring learning outcomes.

By completing the project, students develop their communication and teamwork skills and become more globally and socially aware. Basically, this process needs to be integrated in different services and academic structures because it impacts on academic departments where students are trained and professors are involved in didactic and research activities, but also in students services for tutoring and for career guidance. In many cases academic associations of students and alumni need to be involved.

In the academic community, the approach and process required to implement Service Learning programmes and projects need to be prepared and designed in an environment with specific and shared sense of ethics and common values. The regulations and norms under which

the Service Learning should be implemented are innovative and quite new to European universities. In many cases, we can talk about Service Learning initiatives as **pilot actions or special projects** because it defines a new paradigm for the academic missions (Chambers & Lavery, 2012; Jacoby, 1996; Kaye, 2004; Schoenfeld, 2006; Scott, 2006). Service Learning addresses real life needs, fostering a common sense of civic commitment and shared goals equally and reciprocity important between academic and local communities. To build a system of Service Learning, the program **must be clearly structured for both students and professors who come from the academic community and for the citizens to whom the services are addressed**. The co-creation process is based on participatory and inclusive practices where the creative thinking, understood as the ability to represent different scenarios and design different ways of realisation, must imply the possibility of acquiring a flexible attitude from both sides. Making a decision should come through a reasoned-driven approach where it is important to explore new thoughts and choose new strategies, accepting the risk and the unknown and expressing a strong receptive capacity towards new ideas and new paths.

In 1989, Ellen Porter Honnet and Susan J. Poulsen, in *Principles of Good Practice for Combining Service and Learning*, listed the following principles to guide the organisation of Service Learning:

1. An effective program engages people in responsible and challenging actions for the common good.
2. An effective program provides structured opportunities for people to reflect critically on their service experience.
3. An effective program articulates clear service and learning goals for everyone involved.
4. An effective program allows for those with needs to define those needs.
5. An effective program clarifies the responsibilities of each person and organisation involved.
6. An effective program matches needs through a process of circumstances.
7. An effective program expects genuine, active, and sustained organisational commitment.
8. An effective program includes training, supervision, monitoring, support, recognition, and evaluation to meet service and

learning goals.

9. An effective program ensures that the time commitment for service and learning is flexible, appropriate, and in the best interests of all involved.
10. An effective program is committed to program participation by and with diverse populations.

The tables below (Tab. 2 and 3) offer an overview on benefits and challenges in setting up Service Learning in University courses.

Benefits of incorporating service-learning in university courses

Benefit for students	Make the most of this benefit by
Develops skills and builds confidence	... letting organisations know what skills students have to share
Increases civic responsibility and citizenship skills	... providing choice so that students can participate in a project or with an organisation of personal interest
Allows students to see how course material is relevant in a broader context	... providing opportunities for students to link their experiences to course curriculum; consider assigning a project or report that is submitted to the organisation
Engages diverse types of learners	... encouraging organisations to provide different service opportunities for students to choose from (e.g. performing secondary research, working with clients, etc.)

Table 2. Adapted from: University of Waterloo, Incorporating Service-Learning into University Courses

Possible challenges in incorporating service-learning in University courses

Challenge for instructors	Address this challenge by:
Time-consuming to co-ordinate service activities with community organisations	... building relationships with organisations so that workload decreases when the course is offered in subsequent semesters
Service opportunities may not progress as planned or provide the anticipated experience	... checking in with students and organisations often; Use reflective activities to help students understand and critique their experiences, good and bad; Ask students to evaluate service experiences at the end of the course
Have to relinquish some control over how the service portion of the course will progress	... being flexible early in the semester in case students need to be re-assigned to a different project or organisation
Difficult to quantify / evaluate students' service contributions	... evaluating students on the "learning" portion of their service-learning experience, not the "service" portion (ie. Evaluate a presentation based on their service experience)
Organisations hesitant to engage due to multiple requests and inadequate human resources	... working with a central campus group that coordinates and maintains relationships

Table 3. Adapted from: University of Waterloo, Incorporating Service-Learning into University Courses

1.2.4 Learning outcomes

The quality of Service Learning process depends on how learning outcomes are identified and created. In Service Learning programmes and projects, learning objectives are defined by the contribution of the expected learning outcomes of a specific academic course in application to real-world settings. The scope is to identify needs of a community through the active engagement of the academic community because experiential learning generates relevant and unique learning outcomes. These processes aim at promoting and stimulating the assessment and research of the outcomes from both sides, students and citizens, and also the self-assessment of teachers (Ribeiro, Aramburuzabala, Paz-Lourido, 2021). Students also achieve significant outcomes in terms of Career Management Skills and Global competencies for improving their democratic culture and civic commitment (OECD, 2018). The inclusion of civic responsibility as a component of Service Learning in management education is consistent with the need for students to engage more in citizenship behaviour in addition to developing a profit-oriented perspective (Godfrey, 1999). Skill development, workplace experience, career development and the opportunity to better understand the world are important outcomes that need to be included in a comprehensive framework to improve students' individual identities, perspectives, and understandings of the social and business world (Ash, Clayton, & Atkinson, 2005; Godfrey et al., 2005).

In order to meet the needs and expectations of a local community, **the educational approach of Service Learning implies that the design of course content should be based on several reflections about social responsibility and civic commitment (Brower, 2011; Godfrey et al., 2005) because Service Learning should allow students to provide professional and valuable service to the community.** Teamwork, interactions with citizens and civic responsibility have the purpose to facilitate the connection of theoretical concepts to effective practice (Kenworthy-U'Ren, 1999; Molee et al., 2011). Furthermore, creativity, open-mindedness, change of perspective, ductility and mental flexibility, at the core of any Service Learning initiative, assume a combination of emotional and cognitive competencies in the implementation of the Service Learning practices that arise promoting interdisciplinary, inclusiveness and equality.

In 2011, MacKenzie et al.'s identified nine learning domains students can improve with Service Learning experiences:

- . self-understanding/ confidence;
- . communication skills; (3) problem-solving skills;
- . civic engagement, social responsibility
- . willingness to contribute;
- . team skills;
- . self-reflection;
- . general knowledge application;
- . caring for others;
- . intercultural competence.

The following chart shows the most common aims in terms of personal, social, and professional skills which can be improved via Service Learning activities (Tab.4).

Inducing word	Inductive words of the first instance	Inductive words of the second instance
Development	Skills	1. Employability; 2. Entrepreneurship & Innovation; 3. Personal & Professional Essentials.
	Community	1. Engagement; 2. Small active; 3. Local social change.
	Education	1. Reducing poverty; Increasing quality of life; 2. Contextual research; 3. Community service and engagement practices; 4. Learning from positive examples.
	Organisations	1. Social sphere; Social services; 2. Working together with community partners.

Table 4. Correspondence between project development and service-learning practical expressions (Ribeiro, Aramburuzabala, & Paz, 2021)

1.2.5 Evaluation

Despite the recognition of positive effects of Service Learning in Higher Education, it is still a rather new educational practice. Consequently, each Higher Education Institution measures expected outcomes from its own perspectives. How Higher Education Institutions can provide reliable data on student learning outcomes directly related to Service Learning remains to be explained and standardised. The assessment

needs to cover aspects that have clear boundaries and focus on specific areas like techniques of measurement, skills and competences, target (students, teachers, staff), structures and many others.

Students, faculties, institutions, and communities fully benefit from the Service Learning activities, if the assessment of the achievements and the quality assurance of these practices are well settled in the academic institutions. Concerning the assessment model, current research demonstrated how formative (formal and informal) and summative assessments are mutually important for a comprehensive model of assessment for Service Learning in Higher Education. Improving student learning (Popham, 2008) can increase student motivation and learning if a formative assessment methodology is correctly used (Black and William, 1998).

Anyway, summative assessment provides useful information about the effectiveness of the practices in different areas of a system (Harlen, 2009). Gelmon's assessment matrix for student surveys (Gelmon, Holland, Driscoll, Spring, & Kerrigan, 2001) consists of three broad categories.

1) The first category relates to students' outcomes and it is based on Astin's (1993) work. It focuses on students' psychological changes regarding Service Learning and it has four component concepts.

- students' awareness of community concerns;
- quantity and quality of interactions between students and community partners;
- students' attitude toward service and possibility of future service.
- students' attitudes toward work with individuals from unfamiliar or new communities.

2) The second broad category measures "impact on students' cognitive development" and has three component concepts:

- Career development (professional skills gained; awareness of employment opportunities, career interests);
- The understanding of the course content. This concept explores students' ability to connect course goals with the service project or experience;
- The communication concept that refers to the development of community skills or understanding of the role of communication in community based projects.

3) The third broad category is concerned with "students' understand-

ing of themselves as part of a learning community” (Gelmon et al., 2001) and has three components:

- Self-awareness;
- The sense of ownership, autonomy and sense of responsibility;
- The students’ awareness of mutual learning.

A standardised technique to measure and compare the effectiveness of various Service Learning programs across different organisations has come as a priority because nowadays different universities have their own measurement and studies in Service Learning. The development of a common outcomes measurement of Service Learning can make a significant contribution to the field. Issues areas (domains) and qualitative principles are described in many ways at different latitudes of the world, but several examples could be effective good practices. Just to suggest an example, here below the representation of a framework for a possible roadmap addressing the process of continuous improvement of Service Learning into a University (Tab.3):

Service-Learning...	Advanced	Developing	Emerging
Integrates with the academic curriculum	Service-learning is a defining instructional strategy throughout the course connecting a majority of the content	Service-learning is a teaching technique used in the course, but is not fully integrated with a majority of course content	Service-learning is part of the course, with connections to a small portion of course content
Links to curricular content	Service aligns with and enhances curricular content	Service has a clear and direct link to most of the curriculum	Service indirectly and inconsistently links to the curriculum
Collaborates and partners with the community	Active and direct collaboration with the community by the instructor and student in the design and implementation of the course	Community members act as consultants (rather than collaborators) as the service-learning course develops	Community members are informed of the course, but are minimally involved in the design; seen as placement opportunities rather than educational partners
Meets community identified needs and opportunities	Community needs are central to the course; the community is involved throughout the course to identify and assess needs and opportunities	Community needs are somewhat central to the course; the community is consulted to discuss needs and opportunities but no further communication is involved	Community needs are not central to the course; the community has been minimally contacted to discuss needs and opportunities
Facilitates active and critical student reflection	Students think, share, and create significant reflective products as evidence of learning	Students engage in critical, reflective learning but do not demonstrate evidence of it through products or assignments	Students do not engage in deeper or more critical reflective learning throughout the course

Table 3. Adapted from: Carolina Center for Public Service (2023)

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Academic Service Design for Community Service Learning

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2.1 Introduction

In the previous chapter, Service Learning was presented as a collective and correlational teaching approach that has its *raison d'être* in the re-design of the educational curriculum, in this case the university curriculum, with the aim to focus it on the approach of *learning by doing*, which was disseminated by the American philosopher and pedagogist John Dewey, among others. Thus, at the same time as developing meaningful services to the community, relevant curricular content is applied. Service Learning is, in fact, a methodology that draws from different historically traditional sources in the educational sciences, but which is not widely applied in the 21st century. According to Santos Rego, Sotelino Losada and Lorenzo Moledo (2015), **Service Learning should be understood as an educational process that contributes to the comprehensive training of university students and that responds to the need to include civic and social values in the education of future professionals.**

On the other hand, teaching in Higher Education has been undergoing a significant change for more than a decade, starting with the so-called Bologna Process in 1998. The Bologna Process set out the need to follow a common line in all European countries with regard to Higher Education. This whole process has undergone different advances and, why not say it, also stagnation or difficulties derived from the difficulty of harmonising visions and expectations regarding what Higher Education in Europe should be. Something that gradually emerged with a certain unanimity among the member countries has been the need - almost a responsibility - **to bring the education provided in these institutions closer to the needs of citizens.** As pointed out by Guevara (2017, p. 127), “the University cannot remain on the sidelines; on the contrary, it is called upon to rethink itself in order to be in line with the cultural climate of the present and the changes demanded by society, seeking alternatives that contribute to university/social transfor-

mation and the improvement of the quality of life of socio-educational actors”.

In this chapter, the aim is to delve deeper into the potential of Service Learning as a methodology for educational transformation in the university context. Special attention will be paid to the contribution of this methodology to the development of the ethical dimension of students, as well as to the design of institutionalisation processes and the development of Service Learning projects oriented towards competence-based learning. Finally, starting from what presented in Chapter 1, evaluation processes are presented as a key element in the didactic and organisational design of these programs.

2.2 Service Learning as a methodology in the university context

There is a clear agreement in the context of European Higher Education when it comes to understanding Service Learning as a proposal that allows the different missions of the university to be structured: teaching, research and knowledge transfer, from the perspective of the social responsibility of the university institution (Serrano and Roig, 2017).

In order to be able to respond to this new paradigm which advocates the need to establish communicating vessels between the university and the community, the different countries and institutions devoted great efforts to the search for new ways of teaching and learning in which the student would be the centre of the educational process. It is thus understood that only by preparing for action we can work starting from a competency-based model. However, there are authors who argue that these new ways of teaching and learning are not so new since, as we have previously mentioned, they connect with the pedagogical approaches of authors of classical pedagogy such as John Dewey (Rego, Losada and Moledo, 2015) or Antón Makarenko (Martínez Martín, 2008).

In the last decade, there has been a proliferation of different teaching-learning models and active methodologies, which seek the full integration of the learner in their learning action, although not all of them have been equally successful in practice. However, some of these methodologies have been seen as powerful models for the learning of competences, this being the case of Service Learning. **In order to put it into practice, it is necessary to leave behind pedagogies that are more traditional and give way to teaching-learning processes that involve a revolution in the mentality of the protagonists** (Ruiz-Corbella and García-Gutiérrez, 2019).

On the other hand, while research has traditionally been given greater value in universities than teaching, and the study of the methodologies used in the classroom has not been given the importance it deserves, Service Learning initiatives are gradually transforming this approach. The key element of this change is the evidence that research and teaching in the field of education are not opposing actions, but they can both give feedback on each other (Chiva-Bartoll and Gil-Gómez, 2018). **Service Learning must be understood as an educational**

proposal led by students that combines learning and community service processes in a single project. It aims to address a community need, while planning and improving student learning (Tapia and Panadero, 2010). It is a strategy that is made of two interrelated elements: **learning and community service** (Puig et al., 2007), which makes it possible for students to acquire skills when volunteering in order to raise their awareness of reality, through the development of a structured and intentional project (Puig, 2014) that will particularly develop the civic and ethical dimension of the students. Similarly, other authors (Chiva-Bartoll and Gil-Gómez, 2018) consider that Service Learning initiatives favour social entrepreneurship as they facilitate the development of the features of this field.

Service Learning is therefore a teaching-learning tool that transforms knowledge from experience, modifies identity through the discovery of reality and self-knowledge, promote social awareness, participation and involvement in a community through the construction of shared goals (García, Lalueza, 2019), **but above all through the emotional bonds that are generated throughout the development of the project.** And these emotions favour meaningful learning and, at the same time, social awareness and interest in the common good.

2.3 Service-Learning and education in values: the ethical training of students

In a world as globalised as the one in which we live, thinking and reflecting on the common good is a necessary task, and it is evident that it is closely linked to the education that takes place throughout schooling, but above all in Higher Education. The proximity of the transition to the labour market and to adult and active life makes more evident what has been learned, assumed and consolidated in the cultural baggage of each person. But this education in values is not unanimous. Service Learning is defended, since some think that it should be an informal education, not included in the curriculum. For this reason, we still find attitudes of insensitivity, indifference and disconnection from the social reality that surrounds university education. However, people are individuals with needs and subjects of help and therefore, we must train for the common good and to be part of a better citizenship. However, it is clear that one of the unresolved issues that we need to work on in depth is **the change in the mentality of the students with regard to the change that this type of methodology entails in the teaching-learning process**. At the same time, and above all, it also seems necessary to develop strategies that favour a **change in the mentality of academic teaching staff** as to what the teaching-learning process in Higher Education really means.

Moreover, universities are increasingly aware that their function does not reach quality levels if they remain on the margins of social responsibility. Among other reasons, this is because the university is a social institution, but above all because it is financed by society (Martínez Martín, 2008). **In this sense, universities must assume their responsibility as agents of social change, breaking away from the static functions more typical of conservative and elitist times.**

How does the university prepare students to be civic citizens, and how do curricula adapt to the new demands that society is making on the European Higher Education Area (EHEA) systems? These questions are increasingly the subject of debate and reflection, but it is necessary to take action in order to provide working strategies that enable the development of these competences, as is the case of Service Learning. One of the key references to take into account in this practice is the **2030 Agenda, which is made up of the 17 Sustainable Development**

Goals (SDGs), the fourth of which is dedicated to education (SDG 4) and proposes, by 2030: **“ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all”** (UNESCO, 2016). Following in this wake, the latest OECD report, entitled “Education at a Glance 2021” also includes the relevance of incorporating measures that include comprehensive education for students and associated with social transformation from the earliest stages of education. It is for this reason that Service Learning seeks to be an essential contribution to this challenge, which aims to converge various action strategies linked to the transfer of knowledge and the breaking down of structures of inequality still present in our societies. As Mayor Paredes (2021) points out, “the recognition of the regularities that sustain Service Learning as an educational practice make it possible, on the one hand, to give it an identity as an object of scientific study and to carry out research on the impacts it produces and, on the other, to differentiate it from other experiential educational practices (volunteering, field work and sporadic community actions) that are being developed in the community sphere. (p.148)”.

2.4 The design of Service Learning projects: strategies for developing competences in Higher Education

The definition and conceptualisation of competence, which is the principal reference in Higher Education to develop learning processes, varies according to countries, studies, grades, levels and authors. Cano (2008) for instance, gathers different definitions of competence in the field of education, pointing out that what is essential is the **heterogeneous and contextualised incorporation of knowledge, skills and attitudes**. The European Union (Council Recommendation of 22 May 2018) insists on the need for the acquisition of key competences as an essential condition for people to achieve full personal, social and professional development that meets the demands of a globalised, technological and changing world and facilitates the development of economic and social knowledge. Therefore, the acquisition of competences through methodologies such as Service Learning is seen as knowledge in practice, acquired through active participation in social practices and which, as such, can be developed both in formal educational contexts, through the curriculum, and in non-formal and informal ones. In this way, it goes beyond the mere instrumental preparation for the development of a profession.

More specifically, it is possible to allude to several phases for the design and consolidation of Service Learning methodology in the university context (Santos Rego, Sotelino Losada and Moledo, 2015), according to the competences model:

- **Phase 1. Dissemination and knowledge of Service Learning.** In this phase it is necessary to focus on the development of actions from the university institution such as teacher training in Service Learning methodology; the compilation and enhancement of the initiatives and projects already developed; the preparation of publications that provide the results of research carried out about Service Learning initiatives and the inclusion of Service Learning in the framework of the educational innovation awards.
- **Phase 2. Monitoring and evaluation.** In this phase, the direct involvement of the university institution is necessary in order to provide teaching staff and departments with key guidelines on the planning and design of the initiatives, the construction of a bank of

experiences and the formation of teaching innovation groups in the centres or faculties. Furthermore, it is necessary that the evaluation process should begin to be developed with specific attention to the expressed or perceived needs of students, teaching staff and social organisations likely to be involved in the project. After this needs analysis process, which should be cyclical, it will be necessary to carry out an institutional and continuous evaluation of the projects that are designed and applied, promoting their value both within and outside the university community.

- **Phase 3. Constitution of an inter-university body for the promotion of Service Learning.** This body is intended to support the constitution of university Service Learning associations, as well as to act as an interlocutor and mediator for the creation of a consortium between university and civil society to develop Service Learning initiatives. The role that consortia linked to Erasmus+ Service Learning projects can play in this phase is also essential, given their supranational and representative character of various university and civil society organisations.

There are also other proposals that distribute the institutionalisation of Service Learning in the University in other different 4 phases centred on each one of the degrees and more extended in time. They assume that, as Furco (Jouannet, Ponce, Montalva and Von Borries, 2015) points out, some components can take several years to be developed and only through a sustained commitment from the University will it be possible to achieve a true institutionalisation of Service Learning. In the model proposed by Jouannet, Ponce, Montalva, Von Borries (2015) the following phases coexist:

- **Service Learning induction phase.** The aim is to establish institutional responsibility for this methodology and to train a team responsible for the coordination and development of Service Learning projects in each university degree programme. It includes the setting up of a Commission for the Institutionalisation of Service Learning in each degree programme and the development of training workshops for teaching staff.
- **Diagnostic phase.** The aim of this phase is to evaluate and look for points of convergence between the curriculum of the degree and the Service Learning methodology. It includes the review of national and international experiences, the compilation of background in-

formation and experiences of Service Learning in the same degree programme and the development of a SWOT analysis (strengths, opportunities, weaknesses and threats regarding the incorporation of Service Learning in the degree programme's curriculum).

- **Implementation proposal phase.** In this phase, the aim is to develop the curriculum design for the incorporation of Service Learning in the chosen degree programme. It includes the definition of transversal competences or skills; the selection of courses likely to incorporate Service Learning into the set of methodologies already developed by the teaching staff; the selection of community partners by identifying relevant community needs linked to the degree programme and the management of teaching participation from the organisational point of view. Precisely with regard to teaching management, it will be necessary to define, firstly, the teaching incentives that the teaching staff will have to count on in order to sustain this type of action over time, as well as to recognise their effort and dedication. Subsequently, it is important to establish a strategy for the visibility of the projects carried out, as well as their financing, i.e. to allocate a specific university budget for the maintenance and development of the Service Learning projects. Finally, the training of the teaching staff involved in each of the courses in the pilot actions also forms part of this stage of managing teaching participation.
- **Implementation phase.** The last phase would firstly aim to develop a pilot implementation of the Service Learning projects previously designed and aligned with the curriculum of each degree course. After that, the implementation must be assessed and the Commission previously generated have to make some decisions with regard to each of the initiatives developed. The viability of the permanent development of this type of projects within the framework of the degree courses must be evaluated.

Despite the fact that the institutionalisation of the Service Learning methodology in the university seems desirable, in the absence of this, different teachers, individually or in collaboration with other colleagues, choose to design and develop Service Learning projects in their university classrooms that are exclusively linked to a subject or group of subjects. In these cases, some of the published initiatives (Rodríguez Gallego, 2014) opt to follow a process in which there is a first phase of

initial coordination for the design of a first draft of the Service Learning project between the collaborating civil society organisation and the teaching staff involved. It is possible to arrange with this organisation the initial training of the students if deemed necessary, prior to the development of the designed project, which is also included in this initial and previous phase.

Subsequently, the design phase of the specific actions is carried out, adapting the curricular contents and establishing a timetable in which the students involved will have to be linked to and attend the selected organisation. During this process, the agents involved also jointly design actions and activities to be carried out in the university classroom that encourage reflection, interaction and links between the contents and competences worked on during the students' stay in the participating organisation and those that are intended to be developed from the syllabus. In this phase, students already establish their first contacts with the collaborating organisation, being able to develop initial observation processes with regard to the day-to-day actions of the organisation.

In the implementation phase, students must put into practice in the civil society organisation the learning and competences they have so far only been able to deal with in the classroom. They must do this actively by solving or combining their previous knowledge with the actions to be developed by the external organisation. All the phases of the project are complemented by a phase of reflection on the competences developed and applied in the reference context. In the same way, this type of reflective actions are useful for developing the evaluation phase which, like the reflection phase, in this model, is presented as a complementary and transversal phase to the whole process. Finally, once the experience has been completed, it is closed and celebrated by awarding students with diplomas accrediting their participation in the project, with the recognition of the university teaching staff involved and the participating civil society organisation. Nowadays, this type of recognition can even be considered as micro-credentials (DEVA, 2021) that help to develop the professional and personal profile of university students.

Reflecting on Service Learning as a philosophy of educational action, a large part of its success will depend on 3 key elements that deserve to be explained in order to achieve an optimal design and development of proposals of interest and depth. We refer to the formulation of intentional learning objectives, the existence of a relevant or meaningful

service for the community and the inexcusable presence of reflection activities that connect the dimensions of learning and those of service (Santos Rego, Sotelino Losada and Moledo, 2015, p.122).



2.5 The evaluation of Service-Learning experiences as a key element in their quality

The proliferation of Service Learning initiatives has led to the need for a fundamental challenge: evaluation of the programs. It is necessary for the teacher to know the effects of the experience on the learning of their students and the improvement it has brought to the protagonists and to society. The incorporation of systematised evaluation processes in this methodology will provide a more objective and grounded view of each Service Learning programme and this aspect has not been sufficiently addressed so far (Ruiz-Corbella and García-Gutiérrez, 2019). Although, there are already authors who propose research methods from which to analyse the main effects of Service Learning experiences and to be able to detect possible points for improvement (Chiva-Bartoll and Gil-Gómez, 2018; see also Chapter 1). For example, Santos Rego, Sotelino Losada and Moledo (2015) proposed the consolidation of monitoring and evaluation processes to ensure the quality of Service Learning initiatives by means of an inter-university body created specifically for this purpose, in line with the direction provided EHEA (European Higher Education Area and Bologna Process).

In order to design an effective evaluation system it could be possible to rethink the five Ws rule and answer the following questions: what is evaluation for, what is evaluated, who evaluates, when is it evaluated, and how is it evaluated? Following Ruiz-Corbella and García-Gutiérrez (2019), different types of evaluation can be used within the framework of Service Learning development in the university context: participatory and self-managed evaluation, evaluation by competences, hetero-evaluation and self-evaluation, ex-ante evaluation, evaluation in ethical-civic learning, evaluation in institutionalisation processes or impact analysis of the Service Learning methodology and its capacity to generate a change in the environment. The use of instruments such as the self-assessment rubric or the field diaries or notebooks for the interpretation of specific experiences are key instruments for carrying out an assessment that goes beyond the quantifiable to also focus on qualitative aspects that truly reflect in depth the intensity of learning from a competence point of view. Following in this wake, Santos Rego, Sotelino Losada and Moledo (2015) recover the portfolio as a paradigmatic instrument of idiosyncratic and continuous assessment that is an indispensable tool if the aim is to know and assess student learning and that of the participating institutions - understanding the latter as

“learning organisations”. This approach is also aligned with the idea of formative assessment presented in Chapter 1.

Another of the proposals is the evaluation of the transversal competences that are developed in students through Service Learning initiatives. In this sense, it is necessary to focus not only on the service provided to the community and the community results derived from this, but also on the acquisition of the social competences that can favour the students’ all-round development. Since learning is based on experience and awareness of the real problems of the environment in which they are living on a daily basis, this will contribute to the improvement of ethical competence and civic engagement. If this happens, it means that emotional communication skills have been put into practice: empathy, communication, participation, solidarity, critical thinking or intercultural dialogue, among others, represent objects to be taken into consideration in the evaluation processes of Service Learning initiatives with university students. If Service Learning penetrates into the emotional world, it is clear that it will continue to mark people’s ways of acting, thinking and feeling throughout their lives. Therefore, learning takes place before and during, but also after the lived experience.

2.6 Conclusions

Service Learning is considered an educational proposal that affects the learning of intellectual, affective and behavioural areas, encourages critical thinking, transmits values that promote personal development and, as a social and civic being, contributes to the improvement of the social environment of the institutions involved in the programs (Puig, Batlle, Bosch and Palos, 2009). At the same time, it can be used as a tool to encourage the creation of collaborative networks between the university and social and business institutions, which in turn enable meaningful and collaborative learning, as well as social cohesion (Ferran and Guinot, 2012).

As we have been pointing out, the incorporation of Service Learning methodology has a positive impact on the acquisition of competences due to the benefits derived from academic goals such as creative thinking and problem-solving skill, and personal development such as clarification of values, self-knowledge, critical thinking and social and civic responsibility (Martínez-Usaralde, Gil-Salom and Macías-Mendoza, 2019). In the field of Higher Education, Service Learning method-

ology is gaining international increasing attention, given the success it is achieving in the teaching-learning process in various professional sectors such as Law, Economics, Engineering, Social Sciences and Education. Moreover, Service Learning has proven to be a valuable tool to foster ethical behaviour in business management (Vega, 2007). **Although it involves some risks and increases the complexity of teaching, it is a methodology that prepares university students for “a life of informed, responsible, committed and ethical citizenship”** (Hilton and Mowry, 2012, p. 243).

Bearing in mind that university education fulfils the dual objective of training for work and training for active citizenship, the Service Learning methodology is a clear contribution in both directions (Tejada, 2013), because it promotes basic competences in both directions together and at the same time. Furthermore, after years of applying Service Learning methodology in Higher Education, students claim to have worked on and experienced the importance of some of the most relevant soft skills such as (Zayas, Gozálvéz and Gracia, 2019):

- Problem-solving and decision-making skills.
- Active ethical commitment to human rights.
- Needs diagnosis, complex situations and possibilities of people to base educational actions.
- The ability to design, apply and coordinate educational programmes for personal, social and/or professional development.
- The ability to cooperate and work responsibly for the common good.
- The ability for argumentation and dialogue and critical thinking.

To conclude, it can be affirmed that the role of universities in knowledge transfer and research increases and enriches the social and community commitment that is fostered and maintained through the use of methodologies such as the Service Learning.

These methodologies corroborate the positive effects of linking theoretical and practical learning with concrete realities and experiences and endorse university social responsibility, fostering the development of qualities, skills, abilities, talents –in short, competences– that today’s students need to develop in order to face the social, cultural and economic reality of the present and the prospect of an uncertain future. That is why it is possible to affirm that Service Learning methodology from its beginnings to the present day has been developed from a

transnational perspective, thanks to the application and research in different countries, both European and American or from other latitudes, associated with the different stages of the educational system. However, university is one of the most favourable for this methodology to unfold its full transformative and learning potential. It involves educational processes that deepen a conception of the university as a centre of innovation and learning, that is indivisible from society and without which it is incomplete for promoting a true education for a free, participatory and democratic citizenship.

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Community service learning: A powerful learning module for key skills

→ Bora Balun, Yilmaz Ocay

3.1. Service Learning: Conceptualization, main components and impact

Social responsibility which can be defined as the practice to produce goods and services without causing harm to the environment or the society (Cambridge Dictionary, 2022). It is an ideological concept that drives institutions not to engage in unethical behaviour or operate unethically. Instead, they should aim to contribute willingly to the welfare of the society or the societies (consisting of several communities and stakeholders) in which they operate and interact.

Therefore, the concept of social responsibility is applied in all areas of society, whether it is the government, a company and an institution or a single individual, while carrying out main activities in general. In recent years, social responsibility has been especially associated with corporate behaviour, that is, how the establishments, organisations and institutions behave in social relations, how they carry out their business and to what extent these actors comply with society and to what extent they contribute to the socio-economic well-being of the society (Planken, 2013). According to this, it is especially stated that educational institutions are among these institutions. Thus, **educational institutions fulfil their social responsibilities by training their students as individuals sensitive to the environment and society**. So, what is Service Learning that should be emphasised here? As presented in the previous chapters, Service Learning is defined as an educational philosophy that combines the experience for the common benefit and for personal advancement. Its role in fostering civic engagement and social responsibility has also been mentioned in previous chapters. This, in fact, promotes civic obligations, awareness of

social injustice and its complicated causes, dedication to work towards social equity (Olney and Grande, 1995). It helps students understand social problems (Lewis, 2004), increases the sense of caring for others and the ability to put it into practice (Wade, 1997) and also helps gaining social responsibility skills. Service Learning has a positive moral impact (Bernacki and Jaeger, 2008), it positively affects social and moral reasoning, empathy, personal and social responsibility, perceiving helping others as a duty, sacrificing, worrying about welfare of others and awareness of social problems (Billig, 2000). At the same time, as we already saw, it makes significant contributions to self-expression, developing relations, social skills outside school, and problem-solving skills (Wang and Rodgers, 2006). It increases academic success and provides additional effort for academic attendance and performance in terms of responsibility for learning, commitment to classroom work and good grades (Astin et.al, 2000). It contributes to the awareness raising on issues related to citizenship and therefore to the development of active citizenship identity (Battistoni, 1997) by making a positive contribution to the development of citizenship awareness and skills (Buch and Harden, 2011). At the same time, while developing self-concept, self-respect and self-efficacy in terms of identity development (Miller and Neese, 1997), it provides positive relations with the society by connecting the student and the society (Afzal and Hussain, 2020) and therefore, supports a fair society (Carnicella and Boluk, 2017).

The desired level of impact depends on Service Learning policy that must be designed to facilitate the development of these skills as part of or in addition to other learning objectives. In other words, the way to do this is by immersing students in environments, processes and interactions where the concept in question exists and can be critically examined, by comparing different worldviews (Ribeiro et. al., 2021).

In order for learning gained from service experience to provide desired impact, Service Learning policy should be designed as a part of other learning targets or, in addition to these, it should be designed in a way to facilitate development of these skills.

3.2. Service learning though relational, pedagogic, and academic competences: implications based on evidence

When we examine the literature on the integration of the process of acquiring and strengthening basic skills into the learning by serving approach, we encounter multidimensional phenomena based on pedagogical, cognitive, technological, academic competencies. For instance, when we take pedagogical evidence into consideration, **the impact of relational competencies on facilitating Service Learning needs to be examined.**

3.2.1. *The relation with the trainer/tutor*

In the process of doing Service Learning activities, trainers or tutors (who often are from the surrounding community) should share their identities, cultural backgrounds, and academic achievements with the students comfortably and in a talkative way in order to build intimacy and trust in the first phase of the process. Furthermore, trainers have to collect information about the socio-cultural and academic background of each student in order to better understand their situational context, and “who” they are and what their skills are.

This process approach is seen as an opportunity for sharing. **Sharing has given students a sense of belonging and a chance to express their own identities, perspectives and experiences.** Getting more information about each student has helped trainers prepare better course contents and facilitate student engagement in the learning process. Moreover, it has been concluded that this approach stimulates students’ interest in learning by serving and this situation will reflect on community members with positive results.

The process of developing supportive trainer-student relationships can extend various interactions via e-mails, text messages, telephone conversations, and education technologies implementations beyond face-to-face interactions and classroom meetings. It is stated that, expanding the nature of relational communication dynamics via these communication channels will increase the interaction with students, and in return it will provide more opportunities for a teacher in order to understand their interests, challenges, academic knowledge and future goals. In this way, it is emphasised that trainers can develop relational

communication through space (Chika-James, 2020).

3.2.2 The role of learning communities

Learning communities are a small group or student communities sharing common academic goals and attitudes, and working with one or more teachers in collaboration in a classroom. In a study focusing on the contribution of the learning community to the responsibilities of candidate teachers studying at university and the development of their social participation levels (Ronen and Shemer-Elkiyam, 2015), the advantages of learning communities are examined within the concept of Service Learning. Basic assumption of this approach is that **participation in a learning community will develop their responsibilities in their own action areas and their social participation levels**. At the beginning of the study, a survey aiming to reveal the attitudes of pre-service teachers including all aspects of learning in the learning community and their social activities in the community has been conducted. It is found out that **learning communities have positive personal contributions such as improving self-learning skills and learning more about “me” and, moreover it contributes to the development of reflective thinking characteristics through teacher training methodology** (Ronen and Shemer-Elkiyam, 2015).

Within this respect, workshops are considered to be an important opportunity for implementing strategies such as abstract conceptualization (focusing on a certain education and training style), concrete experience (directly involving in Service Learning) and reflective observation (encouraging participation in the conferences and seminars) (Bringle and Hatcher, 1995). Students using traditional problem-solving methods have focused on five main steps, which are recognising the problem, assessing the problem, planning, implementing, and evaluating and concluding. Students' participation in such Service Learning experiences is seen as a valuable approach (Barnett et. al., 2009) to promote social responsibility and their participation in the learning process.

Robust findings of a study carried out by Bender and Jordaan (2007) **showed that students who already knew about community service projects and/or participated in this project are more eager to enrol in a community service course/module if it will add value to their career developments, will earn them course credits and support their personal and social developments**. Moreover, relevant studies

show that participants feel themselves socially more responsible and more inclined to assume a leadership role in the future (Allison, 2008).

Strengthening learning communities and values in the Service Learning model

Within the framework of learning communities, the concept to strengthen values for the training of students who are active in Service Learning can be realised through three ways which are connected to each other (Shemer, Elkiyam, 2015):

1. Subject - reinforcing moral, ethical, and educational attitudes through intensive discussion of social issues, uncovering and understanding various attitudes.
2. Methodology and techniques - a non-hierarchical discussion environment in a discourse community makes it possible to develop and validate the level of attention that supports learning. It enables learning from mistakes as well as creates a sensitive and positive climate teaching student to give and take feedback continually.
3. Integrating implementation with learning- while learning communities are helping develop theoretical discussions on social and ethical issues, they also combine practical initiatives for the solution of these issues in a process.

3.2.3 What do students learn?

When the Service Learning method exists in programs that are part of the education system, students regularly convey the experience they gain via Monthly Report forms or accomplishing other monitoring tasks: these activities are used to demonstrate learning obtainments in terms of new competences and non-cognitive skills like empathy and self-confidence (Segrist, 2013). In learning with serving, **learning goals of the students are as important as the benefits of the service provided to the community; more importantly both are connected to each other and strengthen each other.** Research shows that learning by serving contributes positively to the development of individual qualities in different aspects. However, discussions on the potential benefits of learning by serving when it is implemented based on a compulsory curriculum are still ongoing. Majority of the research bridges the theory and implementation; besides providing students and future professionals with the competencies and skills, it also provides them with the necessary social awareness, especially for their professional performance (GruService Learningte, 2020).

At the same time, leadership and communication skills as well as critical awareness on the one hand, time and resource management and the ability to adapt and respond to the challenges of the real world on the other hand are developing and all of these are beneficial for the transition to the labour market.

A study realised in Portugal (Pais et al., 2022) and covering the issue

from this perspective reveals how important it is to adopt the “education market” understanding in order for students to be prepared for life in society and therefore to be brought up with the perspective of existence. When the results of the study in question is combined with the community experience of academic learning, it shows that **students gain both social and academic competencies, and at the same time they grow critical awareness of the real world and all of these are beneficial for the transition to the labour market** (Pais et al., 2022).

The world is experiencing a period in which great changes are emerging in education and labour market. Especially from the employment perspective it is thought that there is knowledge-based competence at the background of this change. The most important concept at this point is the special or technical competence, that is, cross-competence, which consists of certain skills, knowledge, values and attitudes and is also valid in the environment in which they are developed. This concept has begun to be attributed more and more importance by the organisations in order to adapt to today’s competition conditions. Within this perspective, in a study realised in a university in Spain, **the impact of cross-competences on the employability rates has been examined within the framework of Service Learning concept**. One of the questions sought to be answered in the study is “Are there any differences between the students participating or not participating in experimental activities in terms of the development of cross-competences?” Results show that there is a positive relation between the cross competencies and the experimental activities connecting students to labour or social implementations. At this point of the discussion it is thought that Service Learning should be taken as a pragmatic reference due to two reasons. First, it includes a framework of community-projected activities such as volunteering and at the same time it is connected with the occupational activities as it prepares students for employment. Second, its contribution to the potential to set a clear connection with the academic curricula and it includes an academic pedagogy under university coordination. These two reasons (institutional suitability for Higher Education and educational suitability) take Service Learning to an interesting point in terms of stimulating employability through cross competencies (Rego et al., 2011).



3.3 Setting up a service: the role of partnerships

Partnership relations universities establish with other institutions and organisations contribute to sustainable development by creating a marginal source network between the stakeholders. **Learning by serving acts as a main artery in order to connect and strengthen these sources**, however intellectual obstacles that universities have may limit the effectiveness of the implementation. In order to overcome such obstacles, universities can establish institutional structures facilitating learning by community participation and implement programmes. A case study at Nebraska Omaha University (Melaville, Berg, Blank, 2006) presents an institution example using several strategies to overcome the challenges in learning by serving. As a matter of fact, according to Bringle and Hatcher (2000) institutionalisation of Service Learning or establishment of it as an inseparable part of the mission and structure of a university is seen as an effective way to systematically overcome the obstacles to Service Learning. One of the most important resources that a university can provide to achieve this is a special office. Having a central Service Learning office supported with staff and financial resources is thought to be useful for sustainable community development by establishing a resource network between internal and external stakeholders. Moreover, **Service Learning programmes should not only try to provide direct assistance in planning, reflection and research subjects but also to train academic staff on the process and also to stimulate the impact of service learning on the university, students and on society as a whole.**

Service Learning Academy at Nebraska Omaha University is among the successful examples which managed to increase the efficiency of service learning by removing many obstacles to it and to provide community-wide access (Smith et al., 2020).

Institutions interpreting the future with a focus on learning and seeking new ways for this should focus on experiential education. There are quite a few new experiential approaches put forward within this direction, however, one of the most common and effective approaches is to use learning by serving as a tool for teaching and learning. Moreover, in order for this focus point to yield successful results it is important that this issue should be accepted by all stakeholders. It is stated that universities should focus on three areas in order to institutionalise this approach. First of all, continuous efforts are necessary in order to

make academic staff (professors, researchers, technicians) participate in the programme. The second focus point is to increase awareness of the academic staff on the programme and to develop their skills to put service learning into use. Finally, as many good practices as possible need to be put in place to institutionalise service learning. It is possible to assess the strategies below within this concept (Prentice, 2020):

- design course curricula in a way to reflect the necessities of learning by serving and relevant course expectations;
- establish a Service Learning advisory board or a committee that meets regularly;
- realise orientation activities for students, academic staff and community institutions;
- assess the programme annually;
- develop relations with other schools about service-learning issue;
- create and distribute information material frequently;
- organise promotion events every year;
- inform the entire academic community, from the management board to support staff and students, about the programme.

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Community Service Learning. Experience and reflections for career learning civic engagement

→ Pinelopi Vergou, Anna Boubouzioti, Panos Manetos

4.1 Community Service Learning: Characteristics and learning experience

The report of the European Association for Service Learning in Higher Education describes that the pillars of Community Service Learning (CServe Learning) are built on **collaboration between the students, schools, and communities** (EAServe LearningHE, 2021). Several key components have been identified in the literature (EAServe Learning-HE, 2021):

- 1) It is a pre-planned and organised student experience, gained through a service that responds to the authentic needs of the community. **CServe Learning supports a change in the traditional assistive model (service for the community) to a horizontal model of solidarity (service with the community).**
- 2) It is based **on active student involvement in all stages of the CServe Learning project**, from planning to assessment. Students feel ownership of the CServe Learning project and act as leaders of activities, not only their implementers.
- 3) CServe Learning experience is intentionally integrated into the academic curriculum or in the research context. There is a clear connection of service to the objectives and content of education.
- 4) It provides a temporal sequence that allows participants to reflect on the CServe Learning experience. Reflection in CServe Learning is seen as a meaning-building process that guides the learner through the community-oriented experiences, facilitating the in-depth understanding of relationships and the connections between experiences and the CServe Learning concepts.

5) It aims to promote the development of civic responsibility of students. In addition to the development of professional competences, students' change their civic involvement not only during but also after performing CService Learning projects.

Diagram 1: David Kolb's experiential learning style theory is typically represented by a four stage learning cycle in which the learner 'touches all the bases'

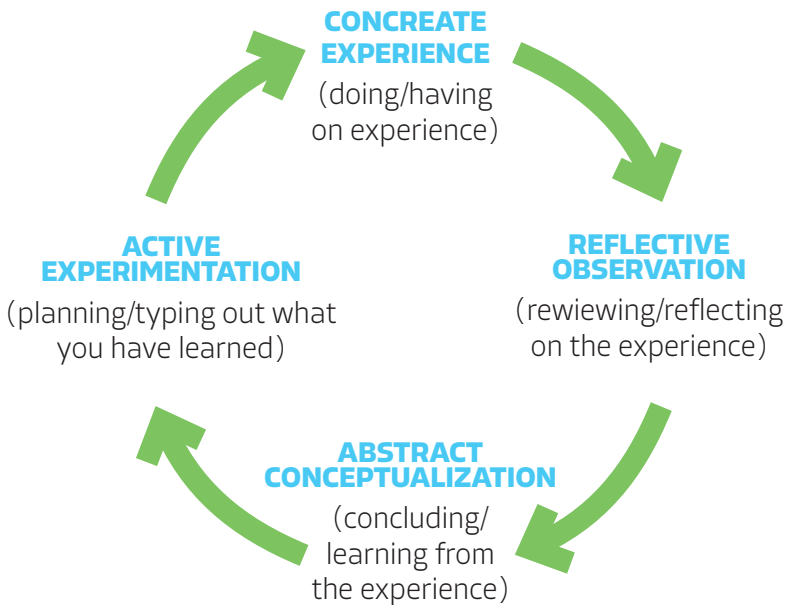


Figure 1. The experiential learning cycle. Source: McLeod, Kolb's learning styles and experiential learning cycle (2017)

According to David Kolb's experiential learning theory (1984), learning is typically represented by a four-stage learning cycle (Fig.1):

1. Concrete Experience: A new experience or situation, or a reinterpretation of existing experience, is encountered.
2. Reflective Observation of the new experience. Of particular importance are any inconsistencies between experience and understanding.

3. Abstract Conceptualization Reflection gives rise to a new idea, or to a modification of an existing abstract concept.
4. Active Experimentation. The learner applies new ideas to the world around them to see what results (McLeod, 2017).

However, effective learning only occurs when a learner can execute all four stages of the model. Therefore, no one stage of the cycle is effective as a learning procedure on its own.

In relation to Kolb's (1984) model of learning, **CService Learning works with student experiences and involves metacognitive learning, where students are aware of how they learn, what they learn, what helps them learn, how they can use it in practice and what they need to learn further.** CService Learning allows students to earn credits for the learning outcomes that take place through active community engagement and real-life solutions in practice. The process of learning is supported by self-reflection as a necessary part of experiential learning.

4.2 Career learning, active learning and competence

CService Learning complies with the principles of active learning and it contributes to developing professional, personal and social competences. According to Gallini and Moely (2003), participation in CService Learning courses affects students' plans for continued study, and the academic aspects of the Service Learning course are important in accounting for this effect. Furthermore, during Service Learning students have opportunities to apply concepts that they learn in their courses, reflect on the concepts they are learning, and develop a deeper understanding of course material. Also, students involved in an academic course which included Service Learning activities reported significantly more study time compared to that reported for courses without a Service Learning component, and viewed their courses as more academically challenging.

There is an intensive connection between theory, measurement, design and practice in CService Learning which positions everyone involved as a co-generator of knowledge.

In order to monitor and evaluate these courses, Service Learning researchers are frequently themselves practitioners and vice versa, thus, the significance of the integrated identity of practitioner-scholar or scholar-practitioner (Clayton et al., 2013). In the teaching-learning processes, the inclusion of civic engagement must be done through methodologies that promote ethical, holistic, complex, global and socially responsible principles. The most suitable search method for Service Learning courses and programs is Participatory Action Research (PAR) which can be defined as a pedagogical approach based on the direct and active involvement of stakeholders and beneficiaries in the co-creation of the new Community Social learning system. PAR research in CService Learning, can be used as a theory to understand casual relationships among aspects of individuals, programs, contexts, and environments that enhance learning (Friedman and Rogers, 2009).

4.2.1 Community Social learning is experiential research: Performing Participatory Action research.

Unlike more conventional forms of research, action researchers actively participate in the practices they study (Bradbury, 2015). Action re-

search is therefore related to ethnographic approaches that aim to create more experience near understanding of practices (Geertz, 1974).

Action researchers see themselves as co-owners of the practice they collaboratively design and can thus be defined as a way of doing research that seeks transformative change by engaging in a simultaneous process of taking action and doing research, linking both aspects together through critical reflection (Bradbury, 2015).

Through their specific competences, students contribute as active members in order to find solutions to challenges in complex settings, such as those that arise in the context of collaborative governance. For example, an action researcher may: analyse practices and processes, and offer reflections that enable reflexivity; offer and broker knowledge; facilitate group processes of co-creation and experimentation; mediate between different world views, perspectives, and interests; or advocate for change and innovation (Bradbury, 2015; Meerkerk and Majoor, 2020; Wittmayer and Schäpke, 2014). The difference between “reflection” and “reflexivity” is to be understood as “looking back at one’s actions’ versus ‘considering one’s actions as part of a system or culture that shapes and directs these actions” (Meerkerk and Majoor, 2020).

When designing CService Learning courses or projects, students should become action researchers by achieving researchers’ attitudes and routines. The fundamental principle of Action Research lies in the building of reciprocal relationships and partnerships in order to create sufficient space and assent for the researcher to operate. According to Meerkerk and Majoor, (2020; 199) four attitudes and routines are crucial to realising such collaborative partnerships with stakeholders in action research and then elaborate on the daily activities action researchers can expect to perform in their world:

1. Becoming a partner. An active partner in a project and co-creating with others requires mutual trust and commitment. A special attention should be given to: the promotion of student intrinsic motivation and engagement with practice; goals and ambition of stakeholders; reciprocal relationships between stakeholders.
2. Demarcating tasks and responsibilities. A clear understanding between the student/researcher and the primary stakeholder regarding roles, tasks, and expectations.
3. Partnership. Transformative research through co-creating re-

sults on practice, policy and theory.

4. Reporting and reflexivity. Recording and proceeding of a case can be a challenge. Reflexivity is an indistinguishable part of action research (Bradbury 2015).

According to literature five main activities associated with action research (Wittmayer and Schöpke, 2014).

- Making observations and keeping field notes of what is going on. Reporting and reflexivity through field notes, observation, documentation, and all forms of recording –collecting images and stories. Students should remain sensitive, flexible and creative in order to adjust their research methods to the local context and perceptions of stakeholders.
- Interpretation and analysis of these materials. Sharing observations and providing partners with meaningful interpretations of their actions (feedback and reflection).
- Offering knowledge. Connect and associate the knowledge with real-time practices and communicate such ideas.
- Developing new insights, ideas and theories beyond the case study helps the student to make progress through innovating thinking.
- As educational practice CService Learning, an important element is the reflection of students on what they are doing, how and what the result is. This reflection must be based in constant communication and dialogue with all the people that are involved in the project and thinking that CService Learning is a transformative process, which does not separate itself from action.

4.3 Civic engagement and Social Responsibility

Higher Education (HE) is a key institution when it comes to promoting sustainable human development and commitment to sustainability in the search for environmental quality, social justice and a viable and equitable economy. For this, it is necessary to generate a culture that contributes to an environmentally sustainable development and establish channels that facilitate the involvement of the entire academic community in the construction of a model of HE institutions that promote sustainability and social responsibility. In this case, civic engagement contributes to the development of a fairer society and improves academic and social learning that favours the development of the students' competences (EAService LearningHE, 2001).

As mentioned above, the active involvement of students with the community and civic engagement provides spaces for reflection upon their experiences. Although, it is suggested when operating with a CService Learning concept in a higher education system, a distinction has to be made between professional service in the community, volunteerism, field education, political participation and CService Learning (EAService LearningHE, 2001; Fiske, 2001; Furco and Holland, 2005).

According to Clayton, et al. (2013) service activities function analogous to the texts to be studied and analysed in the course; thus, they must be selected or designed carefully based on how they supplement, illustrate, and augment other academic material. It is suggested that, when CService Learning activities are designed and implemented appropriately, service learning encompasses multiple factors that are known to help students achieve in-depth understanding, such as, active learning, feedback, collaboration and cognitive apprenticeship.

Community may be a campus, in the local area or a place in another country, and it may include grass roots initiatives; non-profit organizations; for-profit businesses or government agencies. Clarity and transparency regarding the specific form of the designed variables is needed in order for research to inform theory, contribute to a knowledge base, and guide practice. In this context, community members are to be partners in the process of developing and implementing service learning, not merely recipients of service.

4.4 Similarities and differences between volunteering and Community Service-Learning (Service Learning).

Converting volunteering actions into Community Service-Learning

According to Parker et al. (2009), “Community service learning is the integration of experiential learning and community service into coursework such that community needs are met and students gain both professional skills and a sense of civic responsibility. A critical component is student reflection” (p. 585).

CService Learning and volunteering are two concepts that are sometimes confused in everyday use because they have overlapping characteristics and we can use them interchangeably and as synonyms, although they are not. There are some similarities (EAService Learning-HE, 2001), such as:

- Both CService Learning and volunteering can be carried out in potential scenarios to develop “citizenship competence” (European Union, 2019). Both contribute to the training of the ability to engage effectively with others in common or public interest, supporting the sustainable development of society. This involves critical thinking, integrated problem-solving skills, skills to develop arguments and constructive participation in community activities, as well as in decision-making at local and national as well as international levels.
- Critical understanding of, and interact with, both traditional and new forms of media, recognizing the role and functions of media in democratic societies (European Union, 2019, p. 12) are skills can be cultivated during volunteering as well as during CService Learning, as both are nourished by approaches aimed at social transformation based on the construction of horizontal solidarity relationships.
- The horizontal relationships imply another common point: the “free of charge” principle. Both volunteering and CService Learning entail a personal and collective dedication of time and effort without receiving financial compensation in exchange. Instead, other types of valuable exchanges occur, including significant learning, mutual support, increased personal networks and feelings of satisfaction and vi-

tality.

- Volunteering and CService Learning projects are generally considered beneficial for the people and institutions involved. Reflection on the notion of “benefit” and its role in the civil or solidarity economy, or the ‘economy of third sector’ has generated a debate and interesting developments, where service has been considered as a method to generate an encounter with the other, and to know and understand the others in their needs and styles of life.

There are also, some differences (EAService LearningHE, 2001):

Despite the common ground, we should not use both terms as synonyms. As we mention above, the pedagogical intention, the careful design of the service activities which are properly connected with academic material is key to differentiate between the two types of actions.

- In the case of CService Learning, the division between community service and learning is overcome since pedagogical intentions are fused with solidarity. In other words, these are educational projects with social utility. In this sense, volunteer projects are proposals for social utility in which learning may take place, but this pedagogical component does not emerge as the main purpose of the action and, therefore, it is not usually planned or evaluated either. Consequently, and as an example, the scope of a Citizenship Competence approach will be more feasible in CService Learning projects, given that the learning in practice is one of their main purposes (EAService LearningHE, 2001).

- CService Learning projects incorporate learning objectives which depend on the curricular time and place they occupy. The inherently pedagogical requirements of CService Learning imply incorporation into the educational curriculum with the resulting need for planning of various elements, including objectives, methodology, content and evaluation. As such, the curricular elements that are to be inserted in the project have to be renegotiated and carried out in a participatory manner by all the people involved (EAService LearningHE, 2001).

In this sense, following the international consensus on the central features that define CService Learning we could say that this approach shares with volunteering the objectives of responding to real and felt needs of a community. If we want to develop a CService Learning project we have to make sure that we also fulfil the other two central features (EAService LearningHE, 2001):

- The process must be carried out by the students (including planning, development and evaluation), and the project must be inte-

grated into the academic curriculum, and

- Include the development of generic skills linked to ethical learning and civic engagement.
- Important questions to consider include:
- In which curricular areas or what type of skills do we want to introduce the project?
- How are we going to ensure pedagogical support throughout the project process?
- What are we going to evaluate?
- WHEN to evaluate
- WHAT to evaluate:
- WHO should evaluate
- HOW to evaluate
- How will we encourage motivation and participation throughout the whole process?

To recapitulate, CService Learning in higher education is a transformational pedagogy and a form of justice-oriented education which means, a self-reflexive pedagogy that engages rather than closes off (and thus reifies) the very categories it is meant to operate within (Butin, 2010). The CService Learning-courses correspond to the growing challenges for sustained and consequential community engagement as higher education grapples with new realities such as the increasing racial diversity of students, external market pressures, and the changing terms of faculty employment.

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Learning in the era of digital readiness

→ *Paulina Spanu*

Education in the digital era is a determining factor in the economic and social progress of a nation. The entire educational process acquires new values, with a focus on learners, due to the potential offered by new digital technologies. The use of digital technologies in schools and universities makes teaching and learning more active, participatory, and flexible.

Implementing digital resources in the teaching activity contributes significantly to increasing the efficiency of the teaching process. However, the integration of digital resources in the teaching/learning process does not only involve computers in the educational process but also the teachers' training, Internet access and continuous modernization of the existing infrastructure in schools.

The impact of digital technologies on the education system was growing during the COVID-19 pandemic. The pandemic highlighted the fact that it is necessary to have an education system that integrates into the digital era.

During the pandemic, inequalities were identified between those who have access to digital technologies and those who do not, especially among people from disadvantaged backgrounds. Moreover, the impact caused by the lack of digital infrastructures in schools and the teachers' limited digital competencies were highlighted. It has been a real challenge for teachers from the European Union to move from traditional to online education. However, some teachers have been able to use digital technologies in their teaching process. There have been problems with teachers and students using modern technologies. Studies on children's digital skills have shown that more than a third of children do not even have the minimum level of digital skills and access to computers and the Internet. The percentage increases significantly among students from rural areas who come from low-income families.

Online education during the pandemic has somewhat accelerated the introduction of digitization in schools and forced teachers to develop

new methods of organizing their teaching activities. During the Covid-19 pandemic, teachers were put in a position to reconfigure educational methods by adapting them to the online environment. However, digital education requires effort not only from teachers but also from students, their families, and communities. Online learning resources should be accessible to students regardless of their financial resources. The content of educational resources must be relevant and interactive. During this period, when teaching-learning moved to the online environment, it highlighted the insufficiency of digital skills for the efficient organization of the teaching process in the online environment. Many schools did not have internet connectivity and access to digital technologies, nor the financial resources for families to ensure children's participation in online lessons.



Although all EU countries have internet connectivity, efforts are being made by all actors involved to generate an education system based on digital resources and technologies. According to SMART-Edu (Digitalization of education in Romania, 2021-2027, n.d.), strategies for the digitalisation of education should include the following emerging priorities:

ACCESSIBILITY

providing digital infrastructure and technologies

CONNECTIVITY

development of digital skills

use of open educational resources

COMMUNITY

stakeholder consultation and involvement

INNOVATION

use of all digital emerging resources and technologies

stimulating creativity and entrepreneurship

SUSTAINABILITY

ensuring long-term predictability for digital education

Education in the digital era is distinguished from traditional education, especially when it comes to school performance and motivation to learn. The teaching/learning environment is a much more attractive and efficient environment, with the help of digital technologies. To develop a sustainable and efficient educational environment, based on digital technologies, the European Commission has established an action plan

(2021-2027) focused on priority areas (Digital education action plan, 2021-2027, n.d.):



Fostering the development of a high-performing digital education ecosystem

Enhancing digital skills and competences for the digital transformation

In the vision of the European Commission, not only digital equipment but also “motivated and competent teachers and trainers in the digital field” are needed for the development of a high-performance digital educational environment. Teachers must develop high-quality educational content and the platforms used must be secure and comply with standards of electronic confidentiality and ethics.

In the context of the development of the education system, the European Union has proposed the following actions for the digitization of education, for 2021-2027 (Digital education action plan, 2021-2027, n.d.):

- Action 1: Strategic Dialogue with the Member States on the enabling factors for successful digital education
- Action 2: Council Recommendation on blended learning approaches for high-quality and inclusive primary and secondary education
- Action 3: European Digital Education Content Framework
- Action 4: Connectivity and digital equipment for education
- Action 5: Digital transformation plans for education and training institutions
- Action 6: Artificial intelligence and data usage in education and training
- Action 7: Common guidelines for teachers and educators to foster digital literacy and tackle disinformation through education and

training

- Action 8: Update the European Digital Competence Framework to include AI and data-related skills
- Action 9: European Digital Skills Certificate (EDSC)
- Action 10: Council recommendation on improving the provision of digital skills in education and training
- Action 11: Cross-national collection of data on student digital skills and introduce an EU target for student digital competence
- Action 12: Digital Opportunity Traineeships
- Action 13: Women's participation in STEM

To achieve the objectives mentioned in these actions, it is necessary to accelerate the process of digitization of the educational system, by introducing the Internet in all schools, and by supplying schools with equipment and multimedia resources. The governmental support of all European states is also an important factor for all students to acquire digital competencies and skills at the end of school.

The European Commission recommends the development of basic digital skills and competencies from an early age. Digital literacy and knowledge of digital technologies must be achieved progressively and balanced, regardless of gender. In this sense, numerous actions have been proposed for a digitalized education that targets not only pupils and students but also teachers and auxiliary and non-teaching staff in the education system.



STUDENTS

- *Developing a digital competencies profile*
- *Development of digital skills assessment and certification mechanisms*
- *Establishing public-private partnerships for the development and certification of digital skills*
- *Carrying out peer-learning activities with states that have proven performance in the development of digital skills*



TEACHERS

- *Inclusion of digital competencies in the competency profile of the teacher;*
- *Initial training programs for the development of digital skills;*
- *Development of a digital skills assessment mechanism*
- *Ensuring access to continuing education courses;*
- *Erasmus + Mobilities*



AUXILIARY AND NON-TEACHING STAFF

- *Defining a minimum set of digital skills*
- *Ensuring adequate continuing education programs.*
- *Providing a system for managing documents.*

Nowadays, most teachers and students know how to use the Internet and social networks. Students can access and use the educational resources available for free on e-learning platforms. However, e-learning platforms are just a tool, and the teacher's role is no longer just to provide content, but to guide students to explore the content of a discipline, providing increased flexibility for them.

The development of a digitized education system that meets the challenges and demands of the labour market will ensure sustainable economic growth. Given the extremely dynamic nature of society from the perspective of using digital technologies, there is a need for a strategic approach to the acquisition of digital skills throughout life by all actors involved in the educational process.

Self-reflection tools on digital skills, managed by the European Commission, are available free of charge in all official EU languages (Digital education: Free self-reflection tools, n.d.):

- SELFIE is a free, easy-to-use, customisable tool to help schools assess where they stand with learning in the digital age (European Education Area: *SELFIE*, 2022).
- SELFIE for work-based learning (WBL) is a free online tool for Vo-

cational Education and Training (VET) schools and companies. It supports them in making the most of digital technologies for teaching, learning and training (European Education Area: *SELFIE*, 2022).

- SELFIE for TEACHERS is a free self-reflection tool for school teachers SELFIE for TEACHERS | European Education Area (European Education Area: *SELFIE*, 2022).

The hardware and software resources used in teaching and learning must be accessible, easy to use and provide relevant educational content.

Digital resources can be grouped into the following categories:

- equipment and devices: computer, laptop, smartphone, tablets, augmented reality, and virtual reality equipment
- virtual environments: learning management systems (LMS), educational software, augmented and virtual reality applications, educational games, etc.

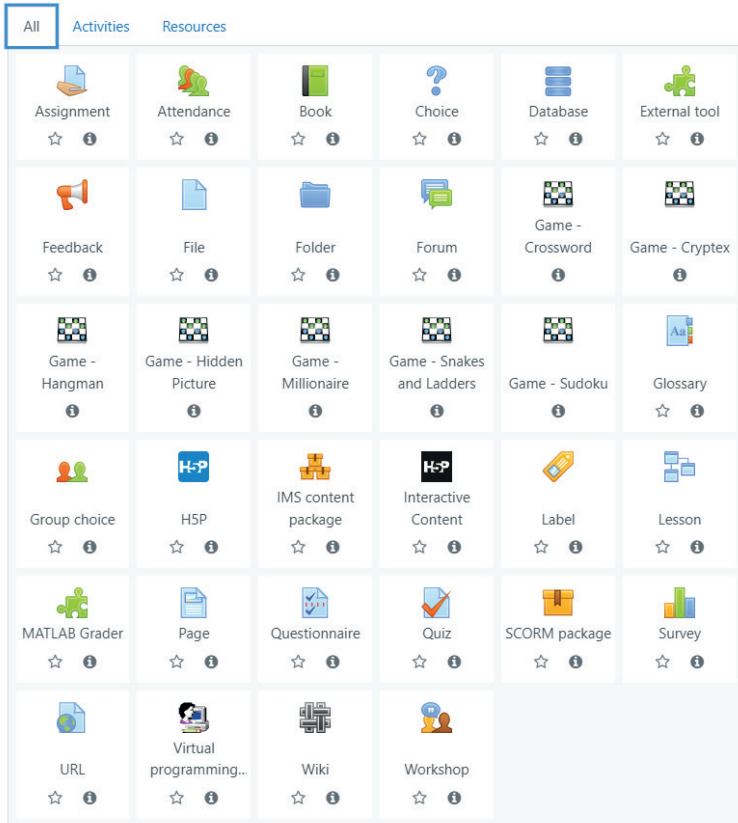
A virtual learning environment suitable for education should allow the communication and exchange of information between teachers and students, and the distribution of teaching materials, in secure and ethical conditions.

Some of the most used Learning Management Systems in education are

Moodle - <https://moodle.org/>

Moodle is open source under the GPL license. Moodle is a learning platform designed to provide educators, administrators, and learners with a secure and integrated system to create a personalised learning environment.

Moodle activities and resources:



Microsoft Teams - Microsoft Teams: Online & Remote Classroom | Microsoft Education

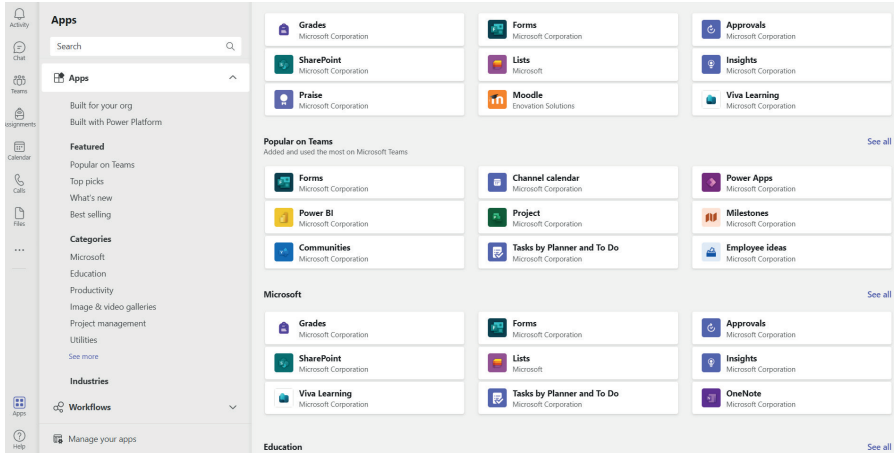
Microsoft Teams is a Microsoft 365 product, free for students and teachers with a valid school email address.

Microsoft Teams features:

- allows users to communicate through chats
- allows admins and teachers to set up specific teams for classes
- allow users to send private messages
- o allows teachers to distribute, provide feedback, and grade student assignments

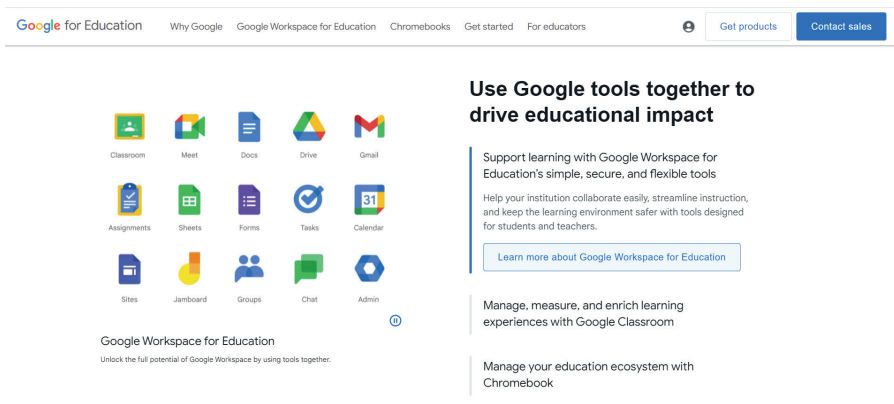
- document storage in SharePoint
- online video calling and screen sharing

Apps for education available on Microsoft Teams



Google for Education <https://edu.google.com/>

Google provides secure tools for Education



→ **EasyClass - <https://www.easyclass.com/>**

EasyClass is a free Learning Management System (LMS) that allows teachers to create online classes whereby they can store the course materials online; manage assignments, quizzes, and exams; monitor due dates; grade results.

→ **School Education Gateway**

<https://www.schooleducationgateway.eu/en/pub/index.htm>

School Education Gateway is an online platform for teachers, school leaders, researchers, teacher educators, policymakers and other professionals working in school education – including Early Childhood Education and Care (ECEC) and Vocational Education and Training (VET)

→ **Edmodo <https://new.edmodo.com/>**

Edmodo is a global education network that connects students, teachers and parents and provides resources for a digital classroom.

→ **eTwinning <https://www.etwinning.net/en/pub/index.htm>**

eTwinning offers a platform for staff (teachers, head teachers, librarians, etc.), working in a school in one of the European countries involved, to communicate, collaborate, develop projects, share and, in short, feel and be part of the most exciting learning community in Europe.

→ **EPALE <https://epale.ec.europa.eu/en/why-epale> .**

EPALE is a European, multilingual, open membership community of adult learning professionals, including adult educators and trainers, guidance and support staff, researchers and academics, and policy-makers.

→ **Wand Platform <https://wand.education/platform-overview/>**

→ **Mondly Mondly - Learn languages online for free**

Mondly is a platform that offers access to learning over 41 foreign languages.

→ **Coursera** <https://www.coursera.org/>

Coursera provides more than 5,000 courses, Professional Certificates, and degrees from world-class universities

→ **edX** <https://www.edx.org/>

Edx offers online courses from institutions that share a commitment to excellence in teaching and learning.

→ **FutureLearn** <https://www.futurelearn.com/>

Offer the opportunity to learn from online short courses.

→ Office 365 Education Free Microsoft Office 365 for Schools & Students | Microsoft Education. The solutions offered by Microsoft for free allow access to online teaching content and students and teachers can interact and collaborate individually or in workgroups.

Learning activities can take place in social networks, which young people access from anywhere and anytime, interacting with teachers or groups of students, through specific applications

→ Facebook <https://www.facebook.com/>

→ Twitter – <https://twitter.com>

→ Pinterest – <https://www.pinterest.com>

→ Instagram – <https://www.instagram.com>

→ TikTok – <https://www.tiktok.com>

Productive and interactive learning could be done using free Web-based Learning Technologies.

There is a wide range of free, useful and efficient digital technologies and tools for teaching and learning, that enable users to share content (Bower & Torrington, 2020):

Image sharing

→ Flickr (<http://flickr.com>)

→ Instagram (<http://instagram.com>)

- Pics4Learning (<http://www.pics4learning.com>)
- Bursts (<https://burst.shopify.com>),
- Pexels (<https://www.pexels.com>),
- Unsplash (<https://unsplash.com>)
- Pixabay (<https://pixabay.com>)
- Openclipart (<http://openclipart.org>)
- Wikimedia Commons (<http://commons.wikimedia.org>)

Audio sharing

- Soundcloud (<http://soundcloud.com>),
- Audioboom (<http://audioboom.com>),
- Freesound (<http://freesound.org>),
- Chirbit (<http://chirbit.com>)
- SoundBible (<http://soundbible.com>).

Video sharing

- YouTube (<http://youtube.com>)
- Vimeo (<http://vimeo.com>)
- Teachertube (<http://teachertube.com>)

File sharing

- Dropbox (<http://dropbox.com>),
- MediaFire (<http://mediafire.com>),
- 4shared (<http://4shared.com>),
- OneDrive (<http://onedrive.live.com>)
- Google Drive (<http://google.com/drive>)

Online whiteboarding

- Web Whiteboard (<http://awwapp.com>)
- Google Drawing (<http://docs.google.com/drawings>)
- Board800 (<http://board800.com>)
- CoSketch (<http://cosketch.com>)
- Twidlla (<http://twidlla.com>)

→ Autodraw (<https://www.autodraw.com>)

Word clouds

→ WordClouds.com (<http://wordclouds.com>),

→ Tagcrowd (<https://tagcrowd.com>) a

→ Word Art (<https://wordart.com/>).

The choice and implementation of digital resources in the educational environment are conditioned by the educational environment, the teacher's conception of teaching, learning and assessment, the specifics of the discipline and the competencies and abilities that students must acquire. Last but not least, the environments in which educational resources can be made in digital format must be selected according to how the information is to be transmitted: in the form of text, images, diagrams, films, simulations, online discussions, and virtual applications.

Given the diversity of digital resources and the emergence of new technologies, it is sometimes necessary to train teachers in advance so that everyone can access educational resources in digital format or create their resources, using various online or offline tools.

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Validation and recognition of community services learning in the academy educational pathway: the micro-credential system

→ Marta Agueda, Luis Carro

At the present time, the field of learning validation and recognition is coming across a growing phase. The advances in the investigations about the importance of cross-sectional competences, have led to the idea that this learning, which is acquired through the “know-how” approach, has value and can be accredited. Due to this, the people who absorb it will add extra value to their training. These competences are defined as: “the cross-sectional skills and competences are the acquired and proved abilities which are necessary or valuable to respond effectively in every type of work, learning or life activity” by the European Classification of Skills, Competences, Qualifications and Occupations (ESCO). Moreover, given the dynamism of these competences, it will not only be a one-time learning in a given environment, but it will also be transversal to all spheres and during the course of life (lifelong learning).

As a result of this growth, several projects around Europe have emerged to find an answer to this dilemma. In the case of TRANSVERVAL-EU, the purpose is focused on how to make those skills more explicit and to embed the lessons learned in validation and guidance provisions. In the same degree, it aims to increase the knowledge and awareness of validation assessors, counsellors and career guidance practitioners on transversal competences through capacity building.

In cooperation with the project, TRANSVERSAL-EU developed a report which comprises information about the international and national policies and practices that support the guidance and validation of cross-sectional skills and competences. Among the most relevant aspects, it was discovered that the interviewed European countries

(Belgium, Austria, Lithuania, Italy, Poland and Denmark) proposed various amendments such as the updating of the national and international frameworks. In particular, the European Qualifications Framework for lifelong learning, EntreComp, LifeComp or DigComp, given the great progress being made in this field of knowledge.

In a similar manner, as a second part of the project, TRANSVERSAL COMPETENCE FRAMEWORK (TCF) was created with a total of 12 cross-sectional competences, such as self-reflection, managing of information and critical thinking or resource management where learning outcomes are established in line with the EQF level.

Following this methodology, this pattern could be used as a guiding principle for the development of new reference frameworks in different academic environments and learning areas such as Service Learning. What is more, in December 2021, the European Commission published the Council recommendation Proposal on a micro-credentials approach in order to achieve lifelong learning and employability. This Proposal is the ideal one for the recognition of knowledge and competences acquired through Service Learning courses at university.

6.1 Educational space

In the educational space context, three training dimensions are identified. According to previous studies, such as the ones by Menéndez & García (2005) about “Formal, non-formal and informal education in the European space: new requirements for the training processes in education”, there has been a growing interest on the validation of other types of training for students; as well as on the evolution of the people who practice them at an integral level. This latter group acquires different competences which are specific to the activities they develop so as to transfer them to their everyday routines.

Therefore, formal education is distinguished as the one associated with academic activities. Pérez Porto and Merino (2019) described it as the integral process which starts with initial or primary education, moves to secondary education, and reaches higher education phases. This process of instruction is developed systematically and allows access to several official titles recognized by the state. This type of education follows a specific program where educational purposes are established. Generally, a certain hourly load is stipulated, which students must complete to be in a position to take certain examinations. When

passing final evaluations, students pass the course or get the expected diploma. To this end, formal education is understood as the one imparted from institutions approved by state authorities and organized in regular academic years. The curricula are progressive and lead to successive degrees until the corresponding graduation or certification.

On the other hand, non-formal education is described as one that is not subject to norms or programs. And, for the most part, as one that offers greater freedom to the student since the distribution of degrees or diplomas ratified by the state is not involved. Several investigations by De Benedictis Serrano, Camel Calderon, Sequera Torres & Alvarez Romero (2019) about the significance of non-formal education in student training, showed that any activity that is educational, organized and systematized, is an important tool for the renovation of teaching and learning schemes. This type of education does not necessarily imply a fixed path, it facilitates certain types of learning, and it can be carried out outside the framework of the traditional education system, whether or not it opts for certification. All of this while having the support from information and communication technologies, as well as from the open educational resources.

Other authors such as Naranjo Crespo (2018) argued that non-formal education and/or learning programs will significantly enhance competences, skills and values that can raise the levels and indicators of employability of young people. This contributes to the improvement of their inclusion in community participation streams, and of their social and cultural capital. Non-formal education is also given great relevance within the academic space, where activities such as literacy programs in marginal neighborhoods of the city, professional training, recycling and care for the environment, complementary activities, and social rehabilitation among others are being introduced.

Finally, the learning routes that are recognized as informal education appear. This type of training refers to the learning obtained through everyday activities related to family or friends. As a general rule, it is not an intentional education. It lacks structure and established objectives. It is also not supported by specific tools and does not have a concrete duration. These learning routes include: predispositions to behave in social situations, forms and types of decisions, enrollment and participation in communities, and development of personal identity, among others. Together with the large amount of advantages of this type of education, Rodríguez Illera (2018) revealed the answer for the further development of this work: “it is a tactical learning devel-



opment that involves a commitment”. Informal education is an educational dimension that is almost unexplored and misunderstood by the educational system. For this reason, it is majorly understood as a vast and inventive field for educational and social research that allows us to eradicate as far as possible from the misuse we make of the elements and factors that constitute its natural dynamics.

Within the bounds of this academic space, a new concept emerges known as ‘lifelong learning’. Making reference to Carabias Herrero and Carro Sancristóbal (2018), this modern notion is shaped to be the organizational space for every educational type (formal, non-formal and informal), and causes them to be integrated and interrelated elements. The concept at issue is based on the premise that learning is not confined to a specific period in life. In fact, it goes “from the cradle to the grave” (horizontal direction). It considers every possible context where people interact, such as family, community, work, studies, leisure, (vertical direction). Plus, it involves humanistic and democratic values such as emancipation and integration.

Once the academic spaces were contemplated, it is crucial to familiarize the participants with the different learning validations within them, and how do these label the European guidelines described above. This “validation process should be designed in accordance with the needs

and interests of individuals, not only with the needs and interests of the particular system and institutions”. The proposal for the document by the European Commission in 2012 introduced Open Educational Resources , hereinafter MOOCs, as an opportunity to establish this type of content in schools. It defines it as “digitalized material offered freely and openly to student educators and self-learners for use and reuse in order to facilitate teaching, learning and research purposes”. In consonance with this pattern, the following requirements established by the CEDEFOP (2012) should be taken into account for the validation of this learning:

- The learning acquired through MOOCs should be exposed in the shape of learning outcomes.
- These learnings carry a type of internal credit, such as the awarding of indicators. Take for example, a micro-credential which will be explained later. This should be discussed and documented in a transparent and reliable way.
- The standards or references underlying the credits or indicators should be clearly explained.
- Quality assurance mechanisms for MOOCs should also be clearly stated.
- Evaluation/testing methods should be plainly described.

6.2 Non-formal and informal learning validation

The process of recognition, validation and accreditation of competences will have a person-centred nature. In other words, the person will be the focal point of the study as they will be able to obtain a qualification, and make their knowledge, skills and competences visible.

Accrediting is to make something feasible, to prove its certainty or reality (RAE, 2016), to demonstrate the authenticity and truth of a thing or person. This accreditation process must be conducted by highly qualified entities and professionals with extensive experience in accreditation. That is why the agent must be external to the institution in question, so as not to cast doubt on the results of the process. At the same time, the accrediting agent must be nationally recognised in the activity under analysis.

This accreditation has several significant points. One of them is the voluntary nature of the act. Denoting that it cannot be imposed by the organisation, neither be done for purposes other than certifying the validity of an act. Further, it must be as complete as possible, encompassing the whole process and the results. There is no utility in assessing one part on its own. If the competences acquired by a person inside the classroom are being certified, it is necessary to validate those acquired outside the classroom for the same effect. Finally, the accreditation process must provide training and learning for that person or institution, self-assessment of the individual and final results.

In 2009, the Ministry of Education published the July 17th Royal Decree 1224/2009, on the recognition of professional competences acquired through work experience, which subsequently included competences acquired through non-formal and informal education. In this way, the Decree defines the act of accreditation of competences as “the set of actions aimed at assessing and recognising cross-sectional competences gained through work experience or non-formal training”.

The European Centre for the Development of Professional Training, (CEDEFOP) started collaborating in 2012, on the basis of certain guidelines, with the validation of non-formal and informal learning. The last one in 2016, justifies this process as:

“A process from which an authorized entity verifies the individual’s attainment of the learning objectives, measured in an appropriate scale. All together, it emphasizes on the idea of a visible, diverse and rich

learning process, which is often ignored, and usually performed outside of formal education and training”. (EU Council, 2012).

This process is divided in four different phases specified by the CEDEFOP:

- **Determination:** it consists of a first phase of self-understanding of their skills and competences acquired over time in formal and non-formal settings. This will help them to become aware of who they are. This self-assessment should be carried out by a person, as the ICT may not be able to identify and assess the competences and skills attained by a person. For this reason, observation, interview and dialogue-based methods will be used.
- **Documentation:** The evidence to be provided for certification will be the proof that recognizes the acquisition of competences and skills. This is fundamental and it will be necessary to readjust the “portfolio of competences” as referred to by the CEDEFOP (2016). This will be a unique document from the local level to the European level in order to provide validity and quality to this process.
- **Evaluation:** This is the most sensitive part of the process. The assessed standards or baselines will contribute to the veracity and feasibility of the validity certificate. This evaluation, and the tools used for it, will be designed according to the person being evaluated. That is to say, they will be personalized so as to capture and evaluate the learning and the context in which these actions have been developed. One of the options will be the simulation of practices and meetings for their demonstration in case of not having the appropriate certificates, among others.
- **Certification:** The last step for the whole process to have validity, it has two pivotal aspects:
 - The authority asserting the credibility of the document. A qualified and proficient professional in the matter of cross-sectional competences and their accreditation.
 - The entity legitimatizing the document must be a body of recognized prestige. They should hold the powers to perform the competences of validity that have their own features and are recognized at a European level.

In this formal education and training context, through the “European inventory on validation” (2016) report, the CEDEFOP recognized that non-formal and informal education could also be implemented to this

sphere. And, as it happens with formal education, it is possible to initiate its recognition, validation and accreditation. Thereafter, a medium/long term range of options is opened to the recognition and validation of these competences in universities.

According to the CEDEFOP, in order for this process to be accurate, specific conditions must be assembled for the implementation of this system:

- Process of information, guidance and counselling for people participating in this process. This accreditation system involves good communication between the accrediting Institution and the person initiating the process. The recipient must be informed of: chronology, procedures, presentation of evidence, evaluation, support, results and product, among others.
- Coordination between stakeholders. The accreditation process involves the interaction between several people with different responsibilities, from the European Commission to the training institutions, and cross-sectional networking will be necessary to ensure its smooth functioning.
- Link validation to country-specific national qualification systems and frameworks.
- Creation of standards and learning outcomes following educational standards to ensure their validity.
- Have an assurance strategy that supports a “transparent” process and is systematic, permanent and integral to the whole process.
- Process to be guided by validation professionals with full knowledge of the validation process, the education system and the labour market. They should have the ability to express learning experiences in standards-based results. Alongside, the system must involve networks of experts to request feedback on more specific aspects.

6.3 Micro-credentials

Lifelong learning encourages people to continue with their educational path, both personally and professionally. The European Council Recommendation of 20 December 2012 on the validation of non-formal and informal learning, invited member states to establish, in accordance with national circumstances and particularities, and conforming to what they deemed appropriate, several arrangements for non-formal and informal learning validation. In its 2020 Recommendation a larger development of the links between validation and micro-credentials was requested. In view of this situation and through the agency of recognised European experts, “A European Approach to Micro-credentials. Output of the micro-credentials Higher Education Consultation Group” (2020) has been published. It presents micro-credentials, defined as “evidence of learning outcomes acquired in a short-term experience”, which must be assessed according to transparent standards .

In December 2021, the European Commission published the Council Recommendation Proposal on a micro-credentials approach in order to achieve lifelong learning and employability. The common and compulsory elements of the European regulations are established so that the systematization and validation of the accreditation process is possible in all member states.

The compulsory elements in the process are the following:

- Identification of the apprentice
- Micro-credential title
- Country or region of issue
- Entity granting the micro-credential
- Date of issue
- Learning outcomes
- Notional workload required in the country to achieve the learning outcomes (in ECTS credits, where possible)
- Level (and cycle, if applicable) of educational experience leading to the micro-credential (EQF, European Higher Education Area qualifications framework), if applicable
- Type of assessment
- Form of participation in the learning activity
- Type of quality assurance used to support the micro-credential

Optional elements such as:

- Prerequisites to enroll in the learning activity
- Supervision and identity verification during assessment (unsupervised without identity verification, supervised without identity verification, supervised online or on-site with identity verification)
- Obtained results
- Integration/accumulation options (separated micro-credential, stand-alone/integrated, accumulable for another credential)
- Additional information

Finally, in May 2022, the Standing Council of the European Commission published the Council Recommendation on a European approach in order to achieve micro-credentials for lifelong learning and employability. This new release dictates that micro-credentials can be used to complement and enhance education, training, lifelong learning and employability ecosystems to strengthen learning and employability opportunities without disrupting initial education, higher education and vocational training systems. In addition, it states that educational and training institutions and organizations will be the providers of micro-credentials in the various physical, online, virtual, digital and mixed locations, contexts and cultures in which people learn. These procedures encompass all environments in which formal, non-formal and informal learning can occur.

In the end, it established the principles that must regulate the micro-credentials under debate (European Council, 2022) :

- Quality: they are subject to internal and external quality assurance by the system that produces them.
- Transparency: they should be measurable, comparable and understandable, and contain clear information on learning outcomes, workload, content, level and learning offerings, as appropriate
- Membership: they should be conceived and delivered as distinguished and specific learning achievements. Plus, the learning opportunities that enable them to be reached, should be gradually updated, so as to meet the identified learning needs.
- Assessment validity: Micro-credential learning outcomes are assessed against transparent criteria.
- Learning pathways: They are designed and issued to support flex-

ible learning pathways, and allow for validation, recognition and “accumulation” of micro-credentials from different systems.

- Recognition: they must be recognized for academic, training or employment purposes by the competent authorities if possible. This should be done on the basis of information provided in accordance with the European standard elements and the principles applicable to the design and issuance of micro-credentials.
- Portability: they are the property of the credential holder (the learner) and can be easily kept and communicated by the learner, in particular through secure digital portfolios (e.g. Europass), in accordance with the General Data Protection Regulation.
- Learning-centered: designed to meet the needs of the target group of learners.
- Authenticity: they must contain sufficient information to verify the identity of the holder (learner), legal identity of the issuer, date and place of issue.
- Information and guidance: information and advice on micro-credentials should be integrated into lifelong learning guidance services and reach as wide a group of learners as possible, in an inclusive way, supporting education, training and career options.

The 4th Validation of Prior Learning Biennale² that took place in Iceland in May 2022 focused on validation processes for lifelong learning. One of the learnings to be taken into account for these validation processes is active participation in citizenship and democratisation. Specifically, the conference given by Greta Kirdulyté, senior researcher at PPMI (European research and policy analysis center) “Micro-credentials as a tool to recognise knowledge, skills and competences and support lifelong learning” gives us the keys to a better understanding of the validation process through micro-credentials.

According to the author, the following items will be the main objectives to expect from micro-credentials:

- Upskilling and reskilling in the light of fast technological, social and economic changes
- Making knowledge, skills and competences of individuals more visible
- Better responsiveness to the needs of the labor market and employers

2 <https://vplbiennale.org/>

- Quick, personalized and on-demand learning for learners
- More inclusive lifelong learning opportunities

In order to meet these objectives, the first idea is that Micro Credentials are not objectives but tools which can be used in order to validate and recognize knowledge, skills and competence in Service Learning courses at Universities.

This learning tool will help us:

- To make knowledge, skills and competences visible
- To encourage learning and motivate lifelong learning behaviour
- To give value to and to recognise knowledge, skills and competence

Through this process, as the author points out, validation of prior learning and microcredentials can be made:

- Stackability options for microcredentials
- Microcredentials and validation of prior learning
- Make visible and recognizable existing knowledge, skills and competences
- Shorten the study duration
- Get an exemption for part(s) of the education programme.
- Obtain a partial qualification
- Obtain a full qualification (if stackability is possible)
- Gain access to an education programme.

All these contributions facilitate the process that must be followed systematically to ensure its smooth functioning and, above all, its validity at European level. This new system of accrediting knowledge through micro-credentials opens up the opportunity to validate this knowledge, skills and competences acquired by Service Learning activities in order to set these activities as an integrated part of the university curriculum. . This opportunity represents a change in the paradigm of learning in non-formal and informal educational spaces, as necessary as it is important to achieve the most complete possible training of the people who make up society.

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