



# **e-Service Learning for more digital and inclusive EU Higher Education systems**

Handbook

**Train the future trainers to adopt e-Service Learning**



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<b>Authors:</b>	<b>Nives Mikelic Preradovic, Tomislava Lauc, Vjera Lopina, Irena Polewczyk, Mariola Kozubek, Beata Ecler – Nocoń, rev. Dawid Ledwoń, Katarzyna Holewik, Irene Culcasi, Maria Cinque, Valentina Furino, Alžbeta Brozmanová Gregorová, Jana Javorčíková, Petra Strnáďová, Anna Slatinská, Barbora Vinceová Loredana Manasia, Građiela Ianoş, Gabriel Dima</b>
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## Content:

<b>SUMMARY .....</b>	<b>6</b>
<b>INTRODUCTION .....</b>	<b>7</b>
<b>1. Chapter: e-SL Design Framework .....</b>	<b>8</b>
<b>2. Chapter: e-SL Design Principles.....</b>	<b>31</b>
2.1. Design Principles (DP) .....	32
<b>3. Chapter: e-SL Quality Elements .....</b>	<b>38</b>
3.1. Quality Elements (QE).....	39
3.2. Quality Elements (QE) Case Studies .....	42
3.2.1. Case study 1 .....	42
3.2.2. Case study 2 .....	43
3.2.3. Case study 3 .....	43
3.2.4. Case study 4 .....	44
3.2.5. Case study 5 .....	44
3.2.6. Case study 6 .....	45
3.2.7. Case study 7 .....	45
3.2.8. Case study 8 .....	46
3.2.9. Case study 9 .....	46
3.2.10. Case study 10.....	47
3.2.11. Case study 11.....	47
3.2.12. Case study 12.....	47
<b>4. Chapter: Instructional Design Principles .....</b>	<b>49</b>
4.1. Multimedia Instructional Principles .....	50
4.2. Digital storytelling.....	54
4.2.1. The Digital Storytelling Process.....	54
4.2.2. Useful tools for digital storytelling.....	55
4.2.2.1. Images .....	55
4.2.2.2. Animation .....	56
4.2.2.3. Comics .....	56
4.2.2.4. Audio .....	56
4.2.2.5. Video.....	56
4.2.2.6. Interactive activities .....	57
4.2.2.7. Presentations.....	57
4.2.2.8. Social media.....	57
4.3. Microlearning .....	58
4.3.1. The Microlearning Process.....	59
4.4. Technology Integration Models.....	60
4.4.1. SAMR (Substitution, Augmentation, Modification, and Redefinition) .....	60

4.4.1.1.	SAMR: Substitution .....	61
4.4.1.2.	SAMR: Augmentation .....	61
4.4.1.3.	SAMR: Modification .....	61
4.4.1.4.	SAMR: Redefinition .....	62
4.4.2.	TPaCK (Technology, Pedagogy, and Content Knowledge).....	62
4.4.3.	TIM (Technology Integration Matrix).....	64
4.5.	Gamification .....	65
<b>5.</b>	<b>Chapter: e-SL Course Design Options .....</b>	<b>69</b>
5.1.	Course 1 .....	70
5.1.1.	Instructional design.....	70
5.1.2.	Learning outcomes.....	71
5.1.3.	Assessment tools .....	71
5.1.4.	Exam.....	72
5.2.	Course 2 .....	73
5.2.1.	Learning outcomes.....	73
5.2.2.	Learning and Teaching Activities .....	74
5.2.3.	Assessment .....	77
5.2.3.1.	START sheet.....	77
5.2.3.2.	PLANNING sheet.....	78
5.2.3.3.	WORK sheet.....	78
5.2.3.4.	REFLECT sheet .....	79
5.3.	Course 3 .....	80
5.3.1.	Annex 1: (e-)Service-Learning design sheet.....	85
5.4.	Course 4 .....	87
5.5.	Course 5 .....	88
5.5.1.	Instructional design.....	91
5.5.2.	Learning outcomes.....	92
5.5.3.	Assessment tools .....	93
5.5.4.	Final grade.....	93
<b>6.</b>	<b>Chapter: e-SL Documentation Tool .....</b>	<b>95</b>
6.1.	e-SL documentation tool .....	96
	<b>CONCLUSION.....</b>	<b>98</b>
	<b>LITERATURE.....</b>	<b>99</b>

**Labels in the text:**

	Discussion
	For those who want to know more
	Practice

## Summary

The handbook **Train the future trainers to adopt e-Service Learning** was created to support the open e-course within the project “*eSL4EU: e-Service Learning for more digital and inclusive EU Higher Education systems*”, and is intended for higher education teachers who plan to integrate e-Service Learning (e-SL) and help their colleagues to implement e-SL in their teaching.

The project and the e-course focus on emergence of e-Service Learning as an innovative pedagogical approach based on experiential learning (Salam et al., 2019) within the context of higher education in Europe. e-SL is a course-based, credit-bearing educational experience in which students participate in an organized service activity that meets identified community needs, and they reflect on the service activity to gain further understanding of course content, a broader appreciation of the academic discipline, and enhanced sense of civic responsibility. In e-SL the educational experience is mediated by Information and Communication Technology (ICT) wherein the instructional component, the service component or both are conducted online, often in a hybrid model. As such, e-Service Learning provides many opportunities in online education, because it offers an experiential praxis in which students are involved through technology in civic enquiry, in reflections and actions, collaborating with the community.

The set of guidelines and tools has been developed addressing higher education teachers aiming at the following objectives: 1) To build learning systems with an innovative pedagogical approach that integrates community services into the students' curriculum; 2) To promote a change in the traditional assistive model (service for the community) to a horizontal model of solidarity (service with the community); 3) To spread the knowledge on e-SL methodologies developing training materials for academics to adopt e-SL in their teaching practices, guiding their students in implementing e-Service-Learning and assessing their learning while addressing social needs of people with fewer opportunities, especially in cases of emergencies such as the pandemic or other disruptive events and 4) To develop HE lecturers/trainers/students' digital skills aimed at the implementation of e-SL methodologies.

Guidelines and ideas for the above content can be found on the pages of this handbook.

## Introduction

The *eSL4EU* project aims at increasing the social responsibility of higher education institutions through the promotion of the use of e-SL as a way for increasing the hard and soft skills of students through practical experience, also generating a positive impact on the community organizations they will work with and, consequently, on the wider society.

This handbook represents a dedicated guide containing detailed explanations on how to embed e-SL in academic courses and for training the HE teachers to replicate, in the future, the accompanying e- learning course with other trainers or for self-training.

The first chapter describes and explains the **e-SL Design Framework**.

In the next chapter, the list and definitions of the **e-SL design principles** is provided, with a short explanation of each principle and case studies.

The third chapter explains the **e-SL quality elements** and offers suggestions for teachers to creatively adapt e-SL quality elements in different situations.

In the fourth chapter, teachers can learn to use **instructional design principles** and strategies that best fit different interactive activities and instructional goals.

The fifth chapter brings **examples of the instructional design** of the four e-service-learning courses **from the four EU countries**: Italy, Slovakia, Romania and Croatia.

And finally, the last chapter brings a proposal on how to **document the e-service-learning project ideas**, as well as learning needs and community needs that teachers aim to satisfy in a structured way.

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# 1. Chapter: e-SL Design Framework

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Upon completion of this chapter you will be able to:

- recognize the different components of the e-SL Design Framework and how they interact
- identify the multiple factors influencing learning and student achievement in e-SL activities
- apply the e-SL Design Framework in specific contexts
- analyse and evaluate how the e-SL Design Framework translates into an ecosystemic approach to learning in HE



Chapter 1 on **e-SL Design Framework** aims to provide a comprehensive tool that could help teachers, university leaders, community partners, and other stakeholders to design effective and meaningful e-SL activities. The framework considers the multiple factors influencing learning and student achievement in e-SL activities. The framework incorporates **three pillars of the ‘new culture of learning’ - places, people, and partnerships** (Thomas & Brown, 2012) – that translate an ecosystemic approach to learning in higher education. The three pillars interconnect four clusters of design principles with the intention of promoting student engagement.

## 1.1. Core Foundations of the e-Service-Learning Design Framework

Have you ever imagined a journey into the 5.0 Society?

Perhaps it is not a reality yet, but some of its challenges are shaping our collective present. It is a valid question to ask to what extent learners and employers will remain interested in the more traditional solutions from higher education. How can we prepare students for jobs that have not yet been created, to tackle societal challenges that we cannot yet imagine, and to use technologies that have not yet been invented?

What is your approach to compelling design and meaningful learning?

It is a valid question to ask to what extent learners and employers will remain interested in the more traditional solutions from higher education. Learners become more demanding co-creators of educational services and more open to emerging educational providers. How can we prepare students for jobs that have not yet been created, to tackle societal challenges that we cannot yet imagine, and to use technologies that have not yet been invented? How can we equip them to thrive in an interconnected world where they need to understand and appreciate different perspectives and worldviews, interact respectfully with others, and take responsible action toward sustainability and collective well-being?

This is where our journey together begins! Let’s step into the 5.0 Society. Most probably your house robot just brought you the breakfast and rescheduled the noon meeting. Next thing you do is to jump into your autonomous car and go to the university. Your virtual reality lab is ready for today’s course. And so are your students! They are always ready to co-create, to collectively build knowledge and share it. Now we are curious: how did you succeed to make your students be future-ready?

Innovation in pedagogy is one essential pillar of innovation in higher education. Just as a compass orients a traveller, the Service-learning Design Framework connects the pillars, the clusters of design principles and the ambitions to shape the design of service-learning experiences in higher education. By doing so, the Framework aims at

making the most of people, places and partnerships as essential pillars of service-learning. The Framework is not a recipe for effective learning, but a tool of present for the skillsets and mindsets of the future. Let the journey begin!

## 1.2. What is the e-SL Design Framework?

To navigate this complex world, faculty members need effective pedagogical tools. Service-learning is an experiential pedagogy that connects students, teachers, and communities while fostering authentic learning.

In a digitalised world, the communities have less geographical boundaries and students can easily reach them through technology. In the context of the need for digitalisation in higher education, *the e-Service-Learning Design Framework* was developed.

Just like some compass orients travellers, the eService-Learning Design Framework is a people-oriented compass offering guideline for designing eService-Learning projects and activities.

It orients teachers in a world of challenges and rapid change and helps them navigate towards effective, relevant and authentic learning experiences embedding service-learning as a pedagogy.

Co-created by researchers, teachers, and social partners from around Europe, the eService-Learning Design Framework also creates a common language and understanding of the pillars, the clusters of design principles and ambitions that could shape eService-learning design.

The Design Framework is grounded in peer-reviewed articles presenting a diverse range of discrete experiences and projects.

Faculty members, students and social partners need the framework to make learning meaningful and contribute to the well-being of their communities and planet. This goal is reflected in three ambitions. These are long-term goals aiming at inspiring meaning-making through place-based learning, valuing community and widening ecosystem participation, and empowering people to gain centrality in the learning process.

When a teacher uses the Framework, he or she exercises pedagogic agency, meaning that they can set goals, reflect, and act in ways that allow them to effectively integrate eService-learning into their courses.

Along this process, the teachers are not acting alone. They rely on the three **pillars of the new culture of learning** - places, people, and partnerships. For successful implementation of eService-Learning, the three pillars orient the process of curriculum design, course design, service design and, nevertheless, learning experience design.

The Design Framework proposes four clusters or families to organise the principles of designing eService-Learning activities. These are: basic principles, instructional design principles, engagement and inclusiveness principles, and availability of digital skills and resources.

The Design Principles are understood as guidelines for designing e-Service-Learning projects. They are articulated in a set of research-based statements that clearly focus on a specific approach or the requirements that should guide the design activity. Design principles guide actions and reflections.

The Design Framework shows that teachers need to be familiarized with basic principles of service-learning as a pedagogy before they set off towards eService-learning. These include not only establishing a direct and visible link between learning and service goals and designing learning to tackle societal challenges but also ensuring sustainability, and fostering motivation and student engagement.

To shape eService-learning experiences, teachers need to be guided by certain instructional design principles. These are defined as the ability to give learners centrality and agency and combine pedagogies in a constructive and meaningful way.

The integration of the two clusters of design principles leads to a curriculum design that is engaging and inclusive. As teachers become more aware of the eService-Learning peculiarities, they act accordingly and are able to encompass all voices, tackle diversity and inclusion, build partnerships with social partners and develop communities of practice with the aid of technology. Relying on these principles, the teachers can continually foster reciprocity among various stakeholders.

Undoubtedly, the design of eService-Learning activities implies the expert use of technology. Therefore, teachers must consider contexts to foster digital skills development, while keeping the focus on learning, not on technology. The integration of technology boosts learning, regulation and creates effective ways of producing knowledge and communicating it. In e-Service-Learning technology is pervasive!

While there may be many ways of conducting eService-learning projects and activities, meaningful and authentic learning is a shared destination we all want to achieve. The eService-Learning Design Framework orients faculty members, learning designers, social partners and students towards better service-learning activities conducted in a digitalised world.



**How would you use the e-Service-Learning Design Framework to make a difference in your work?**

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*Write your reflection.*

### 1.3. Navigating the Framework

The **e-Service-Learning Design Framework**, a product of the **eSL4HE Project**, is an evolving learning framework that sets out a vision for designing e-Service-Learning projects in higher education. It supports the wider goals of education and provides points of orientation towards the effective integration of e-SL.

The metaphor of a design compass that was used in the presentation video was adopted to emphasise the need for faculty, students, instructional designers and social partners to learn to navigate the process of curriculum design in a way that it is based on evidence and research.

The framework offers a broad perspective of the nature of learning and learning outcomes we want to achieve in higher education. It also develops a common language

and understanding that is generally relevant and informed, while providing space to adapt the framework to particular learning contexts.

## Key features

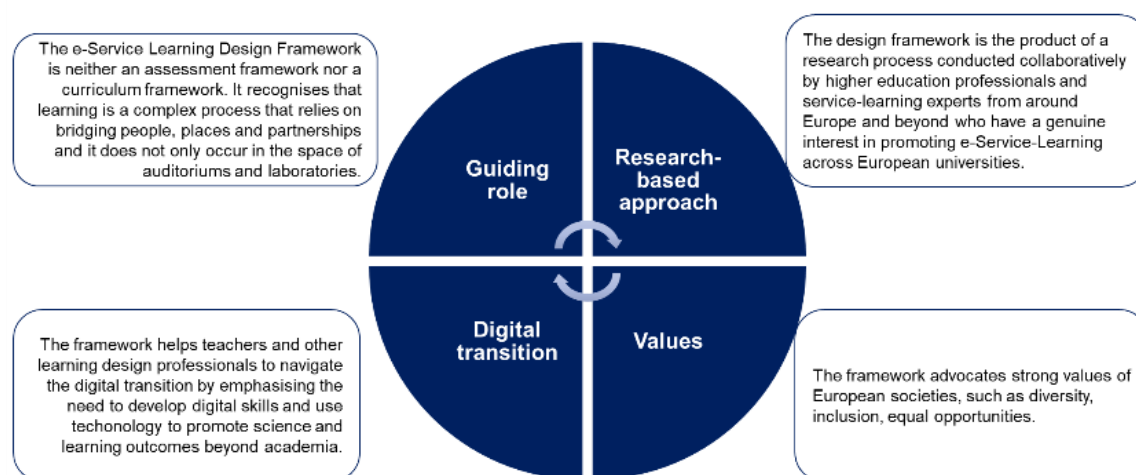


Fig1. Key features of e-Service Learning Design Framework

### Guiding role

The e-Service Learning Design Framework is neither an assessment framework nor a curriculum framework. It recognizes that learning is a complex process that relies on bridging people, places and partnerships and it does not only occur in the space of auditoriums and laboratories.

### Research-based approach

The design framework is the product of a research process conducted collaboratively by higher education professionals and service-learning experts from around Europe and beyond who have a genuine interest in promoting e-Service-Learning across European universities.

### Values

The framework advocates strong values of European societies, such as diversity, inclusion, equal opportunities.

## Digital transition

The framework helps teachers and other learning design professionals to navigate the digital transition by emphasizing the need to develop digital skills and use technology to promote science and learning outcomes beyond academia.

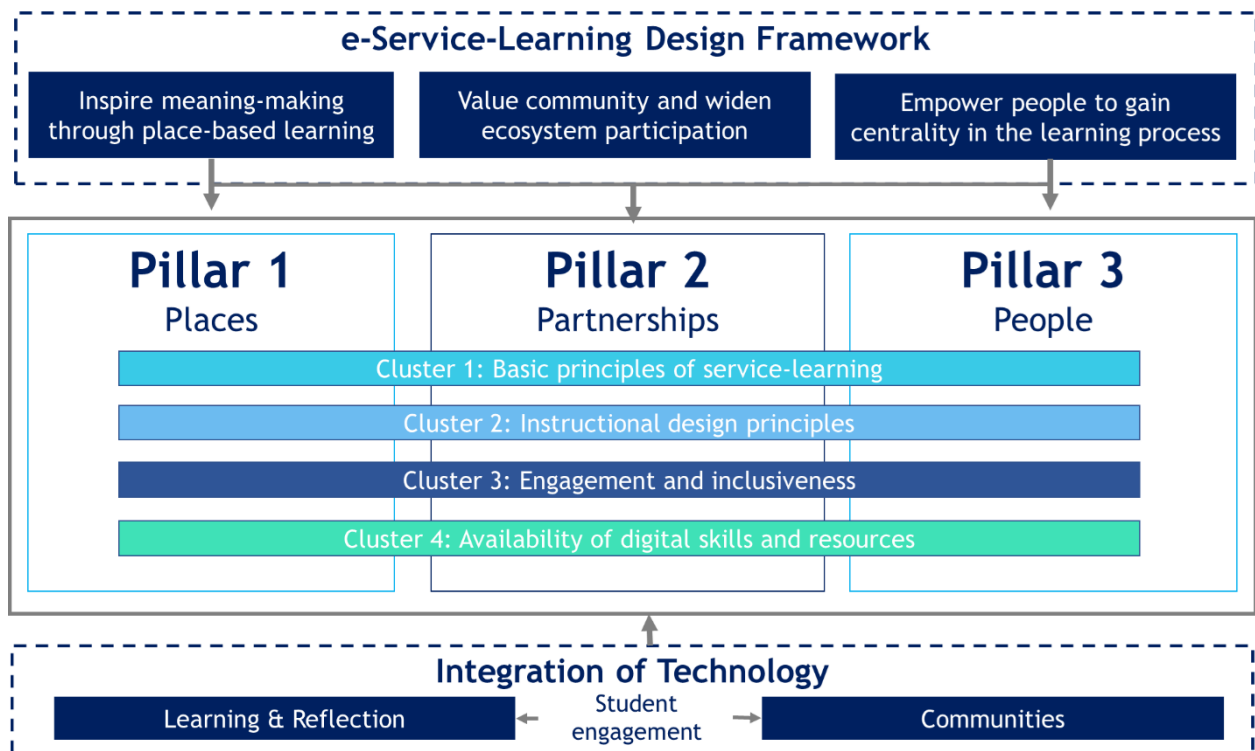


Fig2. e-Service Learning Design Framework

## Pillars

The e-SL Design Framework is built on three pillars – **places, partnerships, and people** – that translate an ecosystem approach to learning in higher education. For successful implementation of e-SL, the three pillars could orient the process of curriculum design, course design, service design and, nevertheless, learning experience design.

The **pillars** are structural directions of the design process having the potential to support the uptake of student engagement and achievement across the four clusters. Widening ecosystem participation relies on people and partnerships to provide a platform for student engagement. Complementarily, diversifying the places where learning takes place is an important strategy to support e-SL and remove geographical barriers with the aid of technology. Additionally, place-based learning connects knowledge with their context with the intension of promoting meaning making and identity building.

## Design principles

The Design Principles are guidelines for designing e-SL projects. They are articulated in a set of research-based statements that clearly focus on a specific approach or the requirements that should guide the design activity. They refer to the planning of the e-SL process and form the basis of any successful e-SL experience.

## Clusters

In the framework of e-SL Design Principles, the concept of cluster is central. A cluster is a family of principles and actions across pillars, intended to achieve meaning-making and effective e-SL experiences design.

### *Cluster 1: Basic principles*

- Principle 1.1: Direct and visible link between learning and service goals
- Principle 1.2: Challenges-based approaches
- Principle 1.3: Sustainability
- Principle 1.4: Foster motivation and engagement

Unquestionably, embedding e-SL into curriculum and course design is strongly influenced by the various knowledge domains and fields of study.

Apart from the domain-specific body of knowledge, the transversal skills or **human literacy** get new accents. A major requirement when designing and structuring a program or a course integrating e-SL is to create a direct and visible link between learning and service goals.

These could be aligned with the needs of the world of work or societal needs, to **design learning for impact**. Impact-focused education accentuates experiential learning and is meaningful for students: it fosters their motivation and engagement. Whenever possible, the thematic approach across disciplines with **real-world connections** should gain centrality to make learning relevant. In a thematically diverse content, **student choice** and **flexibility** could thereby increase agency and self-awareness.

### *Cluster 2: Instructional design*

- Principle 2.1 Combinations of pedagogies
- Principle 2.2 Student centrality and autonomy
- Principle 2.3 Learning awareness / Constructive alignment



- Principle 2.4: Horizontal integration
- Principle 2.5: Vertical integration

No consensus regarding course or service design was achieved. Consequently, the integration and implementation of e-Service-Learning projects do not rely on one pedagogical approach exclusively. A pedagogical approach implies the use of several specific methods combined in systematic ways. Combinations of pedagogical approaches strengthen the power of both established and innovative pedagogies in e-Service Learning.

Two layers of combinations could have been identified: **methodological** and **organisational**.

Diversifying the approaches and methods is key to achieving student engagement. Service-Learning and therefore e-Service Learning are per se innovative experiential approaches to learning. Nevertheless, pedagogical combinations of e-SL with research-based learning, challenge-based learning, gamification, flipped learning or discussion-based teaching proved to be effective in several contexts in relation to centrality and student autonomy.

From an organisational perspective, **horizontally-** and **vertically-integrated** approaches were successfully applied to organize e-Service Learning. Undergraduate and graduate students (namely, vertical integration) could collaborate on e-SL projects. **Co-creating** e-SL with mixed teams of different specializations both students and community partners in a multi-disciplinary approach (namely, horizontal integration) could lead to greater impact. Adult and non-traditional students usually feel they can have a greater impact on their local community if they can determine their own service-learning site placement. This means that it is important to promote student collaborative agency by recognizing their role in setting goals, critically reflect and act responsibly to effect change. The integration of technology (see Cluster 4) allows for combinations of **synchronous** and **asynchronous** learning activities. Social networks such as Facebook or Twitter might engage students through asynchronous discussions or polls. Complementary, wikis, podcasts, or reflection tools could enhance asynchronous learning in e-SL projects.

### *Cluster 3: Engagement and inclusiveness*

- Principle 3.1: Tackle equity, diversity & inclusion
- Principle 3.2: Encompass all voices
- Principle 3.3: Reciprocity and partner with communities
- Principle 3.4: Build relationships among students



Context influences pedagogical appropriateness and effectiveness, but context also shapes who is learning and what is relevant to the students. **Individual, social, and cultural backgrounds** are key contextual factors to be addressed. Non-traditional and vulnerable learners were found to benefit from e-Service Learning. The **flexibility** in achieving the learning goals, the social regulation of learning, and peer interaction were proved to boost the **enjoyment of learning**, reduce cognitive load, and increase **motivation**.

It is particularly important in online learning environments to explore the new possibilities that technology offers to develop and sustain connections and belongingness. Thus, technology is used to create flexible learning settings and facilitate the production and transfer of knowledge.

Implementing flexible design allows students to choose ways of working and grouping based on their diverse needs, personal preferences and possibilities. Student differences in terms of cognition, motivation, prior knowledge and experience are equally important. Additional support and guidance for students in need or at risk is required. Micro-adaptations can be foreseen to provide additional support and guidance for students in need or at risk.

By requiring regular interaction on a variety of levels but most importantly occasional synchronous communication, instructors can contribute to **community building** among students which appears to be a prerequisite to successful virtual service-learning projects. Studies reported as equally important for the success of e-Service Learning the development of a **sense of belonging** to the communities.

Community representatives are 'learning catalysts' in e-Service Learning. To assume this role, the partnership with the communities must be aligned to learning outcomes. Moreover, the community partners will contribute to the co-creation of the learning path, shaping sometimes the nature of learning activities, their sequence, and the design of the service.

#### *Cluster 4: Availability of digital skills and resources*

- Principle 4.1: Skill development
- Principle 4.2: Digital tools for flexible learning
- Principle 4.3: Technology to help, not hinder learning
- Principle 4.4: Technology for critical thinking
- Principle 4.5: Online channels for collaboration and two-way communication

Designing e-Service Learning for effective learning requires complex pedagogies and innovative approaches. In e-Service Learning, the service is an opportunity to apply knowledge and skills and deepen the learning through reflection. Therefore, the focus

is on the activation of online **deep learning strategies** which rely on a 'living' pedagogical design.

Various studies focusing on Service-Learning in online technical writing courses revealed that the approach helped students to make connections to the real world, encouraged them to connect with their audience and develop a sense of purpose for writing tasks, and fostered the use of deep learning strategies. The pervasiveness of technology in e-SL requires the expert deployment of designs that use technology as a complement of teaching to activate learning and collaboration.

Moreover, teachers (and to some extent community partners) require expert knowledge of technology use and technological pedagogical content knowledge to ensure the transition from the informal use of social media and other virtual environments to a more formal use for learning purposes. Thus, the use of technology is transferred from teachers to students to boost students' capabilities to navigate the environment and use it for collaborate, produce and disseminate the learning and service outputs.



#### Choose the correct statements.

- The eService-Learning Design Framework creates a common language and understanding about the pillars, the clusters of design principles and ambitions that could shape eService-learning design.
- The eService-Learning Design Framework helps the teachers to exercises pedagogic agency, meaning that they can set goals, reflect, and act in ways that allow them to effectively integrate eService-learning into their courses.
- The eService-Learning Design Framework orients faculty members, learning designers, social partners and students towards the better service-learning activities conducted in a digitalised world.
- The eService-Learning Design Framework creates a common approach to voluntary participation in a community service project.

#### Fill in the missing words.



The eService-Learning Design is built on \* \_\_\_\_\_ \* pillars of the new culture of learning – places, partnerships, and \* \_\_\_\_\_ \*. These pillars are structural directions of the

\* \_\_\_\_\_ \* process having the potential to support the uptake of student \* \_\_\_\_\_ \* and achievement across the four clusters of principles. Student engagement relies on people and \* \_\_\_\_\_ \* to provide a platform for student engagement. Complementarily, diversifying the \* \_\_\_\_\_ \* where learning takes place is an important strategy to support e-SL and remove geographical barriers with the aid of \* \_\_\_\_\_ \*.



**Think: which principles and actions from the right match with the clusters of design principles on the left?**

Basic principles of service-learning	Establish a direct and visible link between learning and service goals and designing learning to tackle societal challenges
Instructional design principles	Give learners centrality and agency and combine pedagogies in a constructive and meaningful way
Engagement and inclusiveness principles	Encompass all voices, tackle diversity and inclusion, build partnerships with social partners and develop relationships
Availability of digital skills and resources	Consider contexts to foster digital skills development, while keeping the focus on learning, not on technology.

#### 1.4. How to use the Framework to design learning experiences?

(e)-Service-Learning research should deeply inform educational policy and practice. In order to embed the close understanding of e-Service-Learning in the higher education practice, the partnership of the eSL4HE Project conducted a thorough systematic literature review. We then distilled the conclusions from this review into the e-Service-Learning Design Framework introduced in Topic 1.

Identifying the fundamentals of e-Service-Learning provides the design principles to shape both individual practice and wider systems. Therefore, the framework is proposed as a tool to higher education institutions and professionals as offering the blueprint of design, improvement and innovation.

The following activities dive deeper into the four clusters of design principles and showcase how they can be applied in concrete contexts and learning environments.

##### 1.4.1. The why of e-SL Design Framework

A basic reason why e-Service-Learning deserves such attention is because it is so influential of direction and learning outcomes, boosting the experiential nature of learning and helping students to get working on real societal challenges.

And, as learning is the core mission of education then it is natural to integrate a tool helping with the design of such learning experiences.

Watch the [video](#) prepared by Ngee Ann Polytechnic in Singapore to explore a new vision of the 'why' of service-learning.

#### **1.4.2. The what of e-SL Design Framework**

The e-Service-Learning Design Framework refers to the three pillars of a new culture of learning as fundamental to all activities and design but then adds four more clusters to optimise the conditions for putting the eighteen design principles into practice. The three pillars supporting the four clusters of design principles make e-SL projects powerfully effective.

As the cluster of basic principles proposes, an e-SL project is not a point in time activity. Sustainability has to be ensured along with student engagement. Moreover, e-SL is essentially social, being integrally bound up with the endeavour of tackling societal challenges.

Diversifying the approaches and methods is key to achieving student engagement. Service-Learning and therefore e-SL are per se innovative experiential approaches to learning. Nevertheless, pedagogical combinations of e-SL with research-based learning, challenge-based learning, gamification, flipped learning or discussion-based teaching proved to be effective in several contexts (Ezeonwu et al., 2014) in relation to centrality and student autonomy.

Successful e-SL projects strongly promote horizontal connectedness across areas of knowledge and subjects as well as to the community and the wider world. Moreover, multidisciplinary projects bringing together students from different levels of study and disciplines to work in partnership with staff on e-SL projects (vertical integration) that address societal challenges have to be designed.

Horizontally- and vertically-integrated approaches were successfully applied to organise e-SL. As Hagan (2012) pointed out, undergraduate and graduate students (vertical integration) could collaborate on e-SL projects. Co-creating e-SL with mixed teams of different specialisations in a multi-disciplinary approach (horizontal integration) could lead to greater impact.

Buglione (2012) found that adult/non-traditional students felt they could have a greater impact on their local community if they could determine their own service-learning site placement. Similarly, Mikelic Preradovic et al. (2012) concluded that at the end of an e-SL project aiming to develop an educational corner for a community partner, the

students perceived themselves as partners in the learning process (not the objects of that process), able to make a difference in their local communities (Mikelic Preradovic et al., 2012). This means that it is important to promote student collaborative agency by recognizing their role in setting goals, critically reflect and act responsibly to effect change. Putting the principles of horizontal connectedness and vertical integration into practice will have meant extensive work to integrate knowledge around key concepts. There will have been a great deal of research and development around pedagogical expertise, content knowledge and interdisciplinarity. The landscape is changing rapidly, and e-SL is an excellent opportunity to help craft the future of education through learning design and technology. Technology may contribute to all the different components, relationships, partnerships and principles that make up the e-SL Design Framework. Being a clearly crucial presence in the 21st century, technology is everywhere and we cannot imagine learning environments not harnessing the potential of digital technology in some way(s).

Within the e-SL core, technology can re-define the services and connect educators, students and social partners who otherwise would be totally unconnected. The resources for learning may obviously be transformed and become digital; technology may re-define the very notion of a “learning space” including in virtual learning environments.

Student-driven learning and service, collaboration, personalisation and flexibility may all be enabled and enhanced with technology. Communication technologies and social media represent powerful means for partnerships to flourish, whether through the platforms for social partners to engage in partnerships with higher education institutions or for students to engage with each other in professional communities or through offering access to expert knowledge developed elsewhere. It may be as simple as allowing partners to find each other more effectively.

### 1.4.3. The who of e-SL Design Framework

„People” is an essential pillar of any successful e-SL project. Different categories of stakeholders are to be considered when designing e-SL experiences. The framework presented in unit offers a perspective and a way of thinking about learners and other stakeholders of learning that can be applied in designing all kinds of e-SL projects. The key principle of this approach to designing learning experiences is that the learner is the hero. The e-SL experience must focus on the learner and community’s needs and supporting them.

The cluster *Engagement and inclusiveness* dives into understanding audiences, situations, stakeholders, needs, and contexts.

Understanding your learner in terms of what they need, where they are coming from, and what they are returning to comes first. The same goes for the communities and social partners you are working with. Let’s imagine that every e-SL project tells a story. From a storytelling perspective, you cannot tell a story well until you’ve taken your

audience into account. You have to understand who they are, what their interests are, and how you want them to leave the e-SL project they embark on. If you don't think carefully about all of these things first, your story will not be about your audience.

The above-mentioned design principles guide you to look at your audience and what to consider as important and useful. It is important to engage in a thorough discussion you're your social partners before you start planning the learning experience. Keep them in the loop throughout the implementation of the project and make sure they have a clear role in the story development.

#### **1.4.4. The 'where' of the e-SL4HE**

Combining different stakeholders and technology adds up to a complex layering altering the "where" of e-SL activities. It is exercised within universities at various levels (i.e., vertical integration) and in the horizontal connections between learning environments.

Basically, the integration of digital technology transforms learning through service into "anywhere" learning and it increasingly needs to be "anytime" as well.

#### **1.4.5. The 'how' of e-SL Design Framework**

The framework offers a road map for a more successful planning of e-SL and creates a vision for a more inclusive and impact-oriented learning, while connecting students with communities and social partners with the aid of technology.

The challenge of enacting the design principles is to be relished by those who design curriculum in higher education institutions. The force and relevance of these learning principles do not reside in each one taken in isolation - they are not a menu from which to "cherry pick" some favourites while ignoring the rest. They add up to a demanding to inform practice and design.

It is, however, unrealistic for a learning designer to start working on all principles with equal priority at the same time. Instead, working on some of them can provide the channel through which to drive the others.

### **1.5. Case study 1**

A lecturer of an interdisciplinary university course on Agenda 2030 decides to propose e-Service-Learning to his 50 students. The students attend different degree courses: Work Psychology, Marketing Communication and Digital Media, and Education. After an in-depth discussion on the goals of the Agenda 2030, the lecturer proposes to the students to choose one of the 17 goals presented, in order to develop an e-Service-Learning project, targeting the web community.



The lecturer wonders whether choosing to have students work on different e-SL projects according to their topics of interest is the best way to do e-SL or whether it would be better to propose one e-SL activity for all. Through reading the e-Service-Learning Design Framework, he becomes convinced that indeed service activities should be designed "around societal challenges from the ubiquitous & global opportunities (i.e., SDGs: environmental, economic and social sustainability)" and each student might feel closer to one challenge than another. Therefore, from the e-Service-Learning Design Framework the lecturer understands that working in small groups on the sub-targets' goals of the 2030 Agenda and promoting discussion among students is a way "to offer students a global outlook and perspective" --> [cluster 1 - design principle "Design learning to tackle societal challenges"](#).

At this point the challenge is set: students are divided into groups according to the chosen SDGs goal (e.g. quality education, reducing inequalities, sustainable cities and communities). Thus, the lecture chooses to "combine evidence-based and innovative teaching and learning strategies mediated by technologies to enhance student engagement" in their e-SL teams --> [Cluster 2 - design principle "Combination of pedagogies"](#).

As the first team activity the lecturer asks students to deepen the chosen topic (goal of the 2030 Agenda) and submit after one week a collection of good practices concerning the achievement of that goal. He invites students to use technology to meet, create, share materials --> [cluster 4 – design principle "Use digital tools to create flexible learning settings"](#). The e-Service-Learning Framework emphasizes the importance of "Promote student collaborative agency by recognising their role in setting goals, critically reflecting and acting responsibly to effect change". The lecture "shows students how to do the needs analysis and brainstorm for suitable e-SL topics" --> [Cluster 2 – design principle "Student centrality and autonomy"](#).

In particular, it gives students the tools to work together by explaining how group work can be managed and inviting them to assess the group's work after each meeting:

1. defining the group's objectives - PRIORITIES
2. defining roles in the group (who does what) - RESOURCES
3. planning individual and joint work that takes place in regular meetings – TIMING



**Choose the correct option.**

The e-Service-Learning Design Framework:

- is a working tool for students to be studied

- is a guide to assessing students
- is a model of a specific e-SL course
- is a guide for orientation in planning and conducting an e-SL course



### Fill in the missing words.

In a e-Service-Learning course, the lecturer has the role of \_\_\_\_\_.

The pedagogical approach of e-SL allows for the introduction of several \_\_\_\_\_ during the implementation.

In order to promote student autonomy in defining the goals of the project the \_\_\_\_\_ delves into the chosen topic/issue.



### How can e-Service-Learning be implemented in practice?

#### Choose the correct answer.

- e-SL can only be done with students from the same degree course but in only one way
- e-SL can be done with students from several degree courses and in different ways
- There is only one way to implement e-SL

## 1.6. Case study 2

A university faculty in Psychology decides to incorporate the Team Based Learning methodology into his fully online e-Service-Learning course. Each week, the students must first read the material prepared by the teacher, come to class prepared to first take an individual test, then a group test and then solve a problem. It seems to go well at first, but after three weeks, the students already appear unmotivated, some desert classes, others arrive unprepared and the atmosphere is tense.

The professor had chosen to incorporate the Team Based Learning methodology within the 100% online e-SL course to help students better prepare themselves on the topics (their curriculum content) that would later be the focus of the service activities.

The lecturer dedicates to consult the e-Service-Learning Design Framework to look for possible explanations and solutions. He focuses in particular on two clusters:



1. **Cluster 3 - Engagement and inclusiveness** and on the design principle “**Building relationships among students**”
2. **Cluster 4 - Availability of digital skills and resources** and on the design principle “**Skills development**”

Thus, he decides to act in this way:

- In relation to **Cluster 3** he considers the importance of the social nature of learning and decides to reflect it with students. From these reflections with the students he realizes that he did not dedicate any specific time to facilitating the creation of bonds between students and realizes that this “absence” did not help group work. He decides to dedicate part of the lesson to doing some activities (using Miro, Wordwall) focused on “sustaining connections and belongingness” (design principle “**Building relationships among students**”)
- In relation to **Cluster 4** he focuses on examining with students the procedures to predict and solve technology-related problems and to support the team. Indeed, many students did not have particularly advanced technological skills and among the problems indicated in relation to teamwork they reported difficulties in using technology collaboratively.



In the final analysis, the lecturer realized that there was a lack of a clear classroom pact, that some students needed technological support and that they felt it was difficult to relate to their classmates because the interaction was only virtual.

#### **Choose the correct answer.**

Consider the social nature of learning and reflect it with students is:

- This is something to consider only if the students require to work on it
- Isn't an important aspect to dwell on
- Is a key aspect of promoting student engagement in e-SL projects



#### **Think about the following:**

- Enhance students' in-depth study of curricular topics from a practical point of view to prepare them for the service phase
- Promote the development of digital skills for students and develop procedures to predict and solve technology-related problems and to support the e-SL project team

Now, write down **what** you are going to do in the course to reach this goal, **how** you are going to do it and **why**.



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## 1.7. Dos and Don'ts

When looking at various (e)service-learning experiences it may look like it is all fitting together spontaneously and with very little effort. Don't be misled by this and assume you can get by without planning.

This is the main reason why you need the Framework, to consistently guide you throughout the whole process of designing e-SL. As it has been shown in the previous two topics, there are several ways to use the e-Service-Learning Design Framework.

The e-Service Learning Design Framework is neither an assessment framework nor a curriculum framework. It recognises that learning is a complex process that relies on bridging people, places and partnerships and it does not only occur in the space of auditoriums and laboratories.

Changing the design and practice of your courses will require a fundamental change in the way we carry out curriculum design and planning. Moreover, students and other social partners must play a key role in this change as they are highly relevant in tackling societal challenges.

But remember it's worth the effort and time and will make you successful in your design endeavours! Here are some planning DOs and DON'Ts to keep you on track when using the framework.

### 1.7.1. DO familiarise yourself with societal challenges and curriculum changes

Understanding the trends shaping our world can help prepare us for the future, and identify the kinds of competencies today's students will need to thrive (see the OECD Future of Education and Skills 2030 project background; (OECD, 2019). For example, emerging technologies, such as Artificial Intelligence and Big Data, have changed the ways people work, live, learn and interact. More importantly, take into consideration the Sustainable Development Goals. In 2015, the United Nations (UN) defined 17 Sustainable Development Goals for 2030. They cover various domains, including eradicating poverty and hunger, ensuring good health, well-being, quality education, gender equality and calling for action on climate change, among others (United Nations, 2015). Here is an excellent example of how to design learning based on the 17 SGDs and vertically integrate learning.

### **1.7.2. DO consider the e-SL Design Framework from the outset and as an integral part of course or project design**

Articulating design principles, goals, content and pedagogical approaches at the earliest possible stage will increase the likelihood that learning outcomes will be achieved, and e-SL project objectives will be met.

Considering the pillars and the clusters of design principles from the very beginning will broaden and deepen learning experiences. Therefore, e-Service-Learning will offer a bridge between new content, skills, competencies, and stakeholders of learning. Embedding the pillars will help you create approaches that take human experience as a central source of learning and incorporate it into teaching and the design of learning environments with the aid of technology ([Paniagua and Istance, 2018](#)).

### **1.7.3. DO employ a two-pronged approach**

Do employ a two-pronged approach tracking progress both to assess activities meant to lead to the intended learning outcomes and to determine the effectiveness and efficacy of the digital enablers supporting these activities. This will help to ensure that the technology is appropriate to the activity and reflects the context in which it is implemented, taking into consideration availability, usability, and infrastructure and availability of skills.

### **1.7.4. DO consider that partnerships are critical**

Social partners are of paramount importance when conducting e-Service-Learning projects. It is important to build strong partnerships from the onset with well-defined roles and responsibilities, including a clear workflow and a responsibility map that all partners understand. The students are at the center of the learning process, but other stakeholders will be needed to enrich the process and the outcomes.

### **1.7.5. DO ‘read’ the framework through the lenses of your multi-local context**

The 2016 “[Journeys to Scale](#)” report by Results for Development Institute and UNICEF emphasises the importance of context, and factors such as active community engagement; ownership and empowerment; human capacity; the reputation of partners; and designing, planning, and continued experimentation. Remember that the e-Service-Learning Design Framework is your compass, but you always have agency when making pedagogical decisions. While there is a consensus about what local means in terms of education, you may want to consider a multi-local approach to your learning design to make sure that all voices are encompassed. Follow the [link](#) to discover a challenging perspective on multi-locality.

### 1.7.6. DON'T take the e-SL Design Framework as a ready-made prescription

The e-Service-Learning Design Framework is not a recipe or a collection of learning activities. It helps translate the design principles into specific teaching practice to achieve new learning goals, without falling into ready-made prescriptions. Based on the pedagogical and content knowledge, one can propose activities associated with combinations of design principles. Sometimes addressing all design principles equally won't be feasible. Nevertheless, the use of the framework simplifies the task for faculty and learning designers to address the four clusters and as many as possible of their corresponding principles, if not all.

The framework should be seen as a compass guiding planning, implementation and assessment, rather than a to-do list. In this view, the framework can be used as a toolbox from which to pick and combine the most relevant elements considering the level of e-SL implementation and the specific context. Because the design principles are references to outcomes, it is appropriate to use them for assessment purposes. Their cumulative and guiding nature allows for developing customised approaches and projects to foster the e-SL culture.

### 1.7.7. DON'T reduce e-Service-Learning to 'just another student-centred pedagogy'

DON'T reduce the pedagogical approach to e-Service-Learning to simple (and simplistic) labels, such as "student-centred" or "constructivist." This unfortunate tendency makes pedagogical innovation appear to be a receptacle of good intentions, with little specified beyond that pedagogy must be active and student-centred. The e-Service-Learning Design Framework helps bridge your expertise and theories of learning, by relying on design principles derived from research on e-SL.



#### Essay

Write a 500-word essay to answer the following question: How the design principles in the four clusters of the e-SL Design Framework influence learning outcomes and student achievement?

The argumentation will address the following aspects:

- how compliance with the principles leads to the achievement of the ambitions;
- what is the nature of the impact that compliance with the principles can have on learning outcomes;
- what can you specifically do to follow the principles in your academic course design.



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**Guidelines for content that you can use to expand your competencies:**

Find more information in **Unit1: e-Service Learning Design Framework** of the e-learning course available at the following link:  
<https://mod.srce.hr/course/view.php?id=482>

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## 2. Chapter: e-SL Design Principles

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Upon completion of this chapter you will be able to:

- understand the essential e-SL Design Principles
- explain the importance of the e-SL Design Principles
- assess / evaluate the importance of particular groups of principles in designing (clusters) of e-service-learning course
- creatively incorporate e-SL Design Principles into own e-SL course

Chapter 2 on **e-SL Design Principles** presents a set of statements that put a clear focus on a specific mindset or the requirements which should guide the design activity of teachers, university leaders, community partners, and other stakeholders. Unit 2 provides the list and definitions of the e-SL design principles with a short explanation. In the exercises we will use the short descriptions of three case studies and you should recognize which e-SL Design Principles were omitted in the design. In the end, you will describe how you can implement Design Principles in your e-SL course. The act of examining new information and experiences in your own words will help you better understand, develop, and strengthen your knowledge of the Design Principles.<sup>7</sup>

You found out in Chapter 1 that in the framework of e-SL Design Principles the concept of the cluster is central. Remember that a cluster is a family of principles and actions across pillars, intended to achieve meaning-making and effective e-SL experiences design.

Remind yourself about the framework and design principles watching the following video: <https://youtu.be/74oZx7LAhO4>

## 2.1. Design Principles (DP)

e-Service-Learning Design Principles are guidelines to inform the project design. They are articulated in a set of statements that put a clear focus on a specific mindset or the requirements which should guide the design activity. They are also useful to fasten and make easier decisions in the various project phases. As e-Service-Learning is a form of Service-Learning, some Design Principles are the same of those in traditional Service-Learning, others are specifically related to the online dimension.

You already learned in Chapter 1 that the Design Framework proposes four clusters or families to organise the principles of designing eService-Learning activities. These are: basic principles, instructional design principles, engagement and inclusiveness principles, and availability of digital skills and resources.

### *Cluster 1: Basic principles*

- Principle 1.1: Direct and visible link between learning and service goals
- Principle 1.2: Challenges-based approaches
- Principle 1.3: Sustainability
- Principle 1.4: Foster motivation and engagement



### *Basic principles*

**Direct and visible link between learning and service goals:** Connect learning to service and service to learning (both ways).

**Fostering motivation and engagement:** Support student motivation and engagement throughout the e-SL project. Technology could be particularly helpful.

**Sustainability:** Promote long-term and large-scale e-SL projects and follow-up opportunities to support community needs and bring social change and lifelong learning.

**Challenge-based approach:** Design service activities around societal challenges from the ubiquitous & global opportunities (i.e. SDGs: environmental, economic and social sustainability).

### *Cluster 2: Instructional design*

- Principle 2.1 Combinations of pedagogies
- Principle 2.2 Student centrality and autonomy
- Principle 2.3 Learning awareness / Constructive alignment
- Principle 2.4: Horizontal integration
- Principle 2.5: Vertical integration

### *Instructional Design*

**Combinations of pedagogies:** Combine evidence-based and innovative teaching and learning strategies mediated by technologies to enhance student engagement in e-Service-Learning.

**Learning awareness / Constructive alignment:** Make students aware of the learning path and process as an opportunity to integrate the “distributed knowledge” and make a meaningful difference in a local and broader society.

**Student centrality and autonomy:** Promote student collaborative agency by recognizing their role in setting goals, critically reflect and act responsibly to effect change. Show students how to do the needs analysis, brainstorm for suitable e-SL topics.

**Horizontal integration:** Connect students to the community and among themselves in a multi- and interdisciplinary approach. Identify new voices, experts, partners and “classmates” from all around the world. These connections generate a multicultural

perspective and embed horizontal transfer and production of knowledge and skills into the learning design.

**Vertical integration.** Involve students from various study cycles into e-SL projects. This connection encourages undergraduate and graduate students to engage in e-SL teams. Promote lifelong learning ubiquity.

### *Cluster 3: Engagement and inclusiveness*

- Principle 3.1: Tackle equity, diversity & inclusion
- Principle 3.2: Encompass all voices
- Principle 3.3: Reciprocity and partner with communities
- Principle 3.4: Build relationships among students

#### *Engagement and inclusiveness*

**Tackling equity, diversity & inclusion:** Implement flexible design in order to allow students to choose ways of working and grouping based on their diverse needs, personal preferences, possibilities (e.g. digital divide) and styles. Student differences in terms of cognition, motivation, prior knowledge and experience are equally important.

**Encompassing all voices:** Provide additional support and guidance for students in need or at risk to encompass all voices generally, and in the specific context of e-SL.

**Reciprocity and partnering with communities:** Foster reciprocity among students, community partners, academic and administrative staff, and co-create the learning and the service goals by identifying the assets provided by all the actors.

**Building relationships among students:** Consider the social nature of learning and reflect it with students. It is particularly important in online learning environments to explore the new possibilities that technology offers to develop and sustain connections and belongingness.

### *Cluster 4: Availability of digital skills and resources*

- Principle 4.1: Skill development
- Principle 4.2: Digital tools for flexible learning
- Principle 4.3: Technology to help, not hinder learning

- Principle 4.4: Technology for critical thinking
- Principle 4.5: Online channels for collaboration and two-way communication

#### *Availability of digital skills and resources*

**Skill development:** Develop digital skills for teaching staff, students & community partners. Provide a meaningful integration of technology and autonomous lifelong learning. Develop procedures to predict and solve technology-related problems and to support the e-SL project team.

**Digital tools for flexible learning:** Use digital tools to create flexible learning settings and facilitate the production and transfer of knowledge to the learning community and society.

**Technology to help, not hinder learning:** Use technological learning solutions adapted to educational needs and specific goals. Technology allows for various combinations of teaching and learning approaches (i.e. flipped learning, storytelling, gamification).

**Technology for critical thinking:** Develop reflection and self-regulation processes with the support of technology, using multiple languages and “spaces” (before, during and after the e-SL).

#### **Online channels for collaboration and two-way communication:**

Use technology to collaborate, produce and disseminate the learning and service outputs to different audiences.

## 2.1.1. e-SL Case Studies

### Case study- example 1:

A university teacher of Pedagogy prepares an e-service-learning project where students aim to help dysfunctional families in which children have delayed speech development.

In addition to reading literature that focuses on this issue, all students should engage in e-service learning during the academic year to contribute to the local community.

The teacher himself is the coordinator and co-creator of e-service activities – students develop e-course for parents which includes exercises stimulating primary functions,

as well as breathing, vocabulary and listening exercises to stimulate speech development of their children.

### Which cluster is missing in this planning?

The missing cluster is: **Engagement and inclusiveness.**

Communities or their representatives **DO NOT** participate in the teaching and learning processes as an essential part of the project development process. In order for this e-SL course to become usable, teacher should consider **reciprocity and partnering with communities**: foster reciprocity among students, community partners, academic and administrative staff, and co-create the learning and the service goals by identifying the assets provided by all the actors.

Teacher should contact and collaborate with the local Psychological and Pedagogical Counselling Centre (PPCC). The staff of the Center would then supervise students and cooperate with families in which children have delayed speech development.

### Case study- example 2:

A university teacher of Pedagogy prepares an e-service-learning project where students aim to help dysfunctional families in which children have delayed speech development.

In addition to reading literature that focuses on this issue, all students should engage in e-service learning during the academic year to contribute to the local community.

Students find different community partners who help to place students on various e-service-learning projects, from creating e-courses on Polish language for refugee students to e-courses which stimulate speech development of children.

### Which cluster is missing in this planning?

The missing cluster is: **Basic principles.**

Service like creating e-courses on Polish language for refugee students is not connected to the specific objectives of the academic field (Pedagogy). In order for this e-SL project to be successful, university teacher needs to provide the **direct and visible link between learning and service goals**: connect learning to service and service to learning (both ways).

### Case study- example 3:

A university teacher of Pedagogy prepares an e-service-learning project where students aim to help dysfunctional families in which children have delayed speech development. The implementation of the project involves cooperation with the

Psychological and Pedagogical Counselling Centre (PPCC). The Pedagogy students visit the PPCC and identify the needs that would define the type of cooperation. Ultimately, the PPCC staff identifies an area of cooperation, which is to help dysfunctional families in which children have delayed speech development.

Students organise meetings in the children's family homes, conduct classes with them to stimulate speech development according to their own program tailored to the individual needs of a given child. The students carry out their project involving the children's parents.

### **Which cluster is missing in this planning?**

The missing cluster is: **Availability of digital skills and resources.**

Although the service that students perform is valuable, this is not an example of an e-service-learning project, since both learning and service occur in person, not in the online environment. Service learning in this project does not engage learners through technology in civic inquiry, service, reflection and action. In order for this e-SL project to be successful, university teacher needs to provide **digital tools to create flexible learning settings** and facilitate the production and transfer of knowledge to the learning community and society. The teacher should use technological learning solutions adapted to educational needs and specific goals, develop reflection and self-regulation processes with the support of technology, using multiple languages and “spaces” (before, during and after the e-SL) and use technology for collaboration and two-way communication.



**Guidelines for content that you can use to expand your competencies:**

Find more information in **Unit2: -Service Learning Design Principles** of the e-learning course available at the following link:

<https://mod.srce.hr/course/view.php?id=482>

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## 3. Chapter: e-SL Quality Elements

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Upon completion of this chapter you will be able to:

- explain the e-SL quality elements
- creatively adapt e-SL quality elements in different situations
- implement e-SL quality elements in planning your own course

Chapter 3 provides the definition of the **e-SL quality elements** and the list of the e-SL quality elements with the short explanation. You will be able to practice using good and bad examples and you should choose the e-SL quality element which was or was not part of the example. In the last section of the chapter you should choose 5 elements and describe how you will implement them in your own e-SL course.

### 3.1. Quality Elements (QE)

e-Service-Learning Quality Elements (QE) are a set of standards and indicators (measurable statements that allow the assessment of whether or not associated criteria are being met) to be used in evaluating the outcomes of both learning and service. They are 'progressive metrics' that enable us to measure progress and impact in e-SL activities. Their 'progressive nature' moves the focus onwards to the relevant dimensions for this pedagogical approach. At the heart of using QEs is the desire to see how e-SL translates into society, and how it can be of benefit locally, nationally and even internationally. As e-SL is a form of SL some QE are the same as the QE of Traditional Service-Learning (face-to-face), others are specifically related to the online dimension.

QE CLUSTER
<i>Cluster 1. Relevant learning</i>
<i>Cluster 2. Relevant service</i>
<i>Cluster 3. Student engagement</i>
<i>Cluster 4. Systematic reflection</i>
<i>Cluster 5. Integrated technology</i>
<i>Cluster 6. Evaluation, dissemination and outreach</i>

e-Service-Learning Quality Elements
<i>1. Relevant learning</i>

**Meaningful learning:** The e-SL project offers opportunities to learn in a community environment and deepen understanding of complexity for all participants (students, faculty, community partners, stakeholders and policy makers).

**Curricular articulation:** The e-SL project has clearly articulated learning, skill or value goals that arise from broader curriculum/study program goals and outcomes, so that they can easily be recognized for all participants.

**Integral education:** The e-SL project promotes the practice of a whole scope of 21<sup>st</sup> century skills and/or soft skills (e.g. digital problem solving, critical thinking, creativity, intercultural communication).

**Strategies for the goal:** Evidence-based, handed-down and proven strategies for action-based instructional design are used in all phases of the e-SL project, depending on the nature and goals of the projects.

## *2. Relevant service*

**Identified need:** The e-SL project has achievable and measurable learning and service goals that meet a real need of a local, national or international community. The need could be identified by students and confirmed by community members; or jointly identified by students and community partners; or sometimes identified by community partners and confirmed by students.

**Meaningful interaction:** Despite the distance-related little or no interaction with the final beneficiaries (e.g. in Extreme e-SL project type), meaningful interaction with the social, physical or web community is nevertheless possible. This interaction could be based on cooperation and mutual feedback.

**Reciprocity:** The e-SL project is built on strong reciprocal higher education institution-community partnerships. The approach is equally beneficial for both HE representatives (students, academic faculty and staff) and community representatives (community partners, stakeholders, people).

## *3. Student engagement*



**Students voice:** The e-SL project enhances the voice and the active participation of students that feel themselves part of a community addressing social needs in the real world and developing strategies to improve the current status.

**Students responsibility:** The e-SL project involves students in challenging tasks, promotes their assumption of responsibility and provides space for their engagement at each phase of the project.

**Appropriate duration and intensity:** The e-SL project offers adequate time frames – in terms of duration and intensity – for students to make experiences and learn in community settings/with community partners in an effective and sustainable way.

#### 4. Systematic reflection

**Time to reflect:** The e-SL project encourages systematic reflection (before, during and after the project) on the learning processes and outcomes for all students to enable tacit knowledge to be made explicit. Through reflection students can link their experiences to the theoretical and methodological background of the subject.

**Reflection dimensions:** The e-SL project involves reflection on personal, social and professional dimensions.

#### 5. Integrated technology

**Use of technology:** The e-SL project is based on a creative, ethical and supportive use of technology. The learning design (selection of online platform, communication) is adaptive, intuitive and motivating for learners.

**Technology consistency:** The e-SL project is implemented online or it integrates online and face-to-face components into an articulated and coherent process. The community is accompanied in the e-SL project by in-person and online interactions through forums, social media, and linking/blogging which fosters communication with the online and offline communities.

**Technology for the goal:** The e-SL project integrates suitable technologies with respect to the nature and objectives of the planned activities (different projects require different needs, *e-SL is not one size fits all*).

**Technological guidance:** The e-SL project provides students with continuous guidance and support, both technical and conceptual/theoretical, to help them familiarize themselves and move nimbly in the online environment.

### 6. Evaluation, dissemination and outreach

**Project assessment:** The e-SL project is assessed by community partners, students and the higher education institution. The project impact could be measured by considering different established multi-perspectives indicators.

**Celebration and dissemination:** The e-SL project collects data and documentation to enable a final student presentation of the results in a shared celebration with community partners.

**Integral education assessment:** The e-SL project provides assessment of students' integral growth (personal and professional).

**Technical components:** The e-SL project is evaluated in its technical and digital components (technologies)

## 3.2. Quality Elements (QE) Case Studies

### 3.2.1. Case study 1

Students of Chinese Studies undertake a service-learning course of 12 credits Service-learning in a Chinese context: connecting encounters during their year abroad in China. They contribute to a local Chinese societal organization and reflect upon their experiences on an academic, personal and societal level.



Academic content focuses on intercultural interaction, Chinese versus western cultural patterns, and deontology of area studies. Furthermore, students need to get acquainted with the theories concerning the social topics of their organization in China.

**Which cluster this case study belongs to?**

**Choose the most relevant quality element from the cluster!**

### 3.2.2. Case study 2

In the service-learning project, the students perform a social function of accompanying and providing emotional support to the elderly, facilitating a generational exchange as a part of the course Psychogerontology. Students become aware of the needs of this group, which promotes commitment to ethics and social responsibility as citizens and as professionals.



It also allows students to observe how the multidisciplinary team works in a geriatric residence, especially the center's psychologist. Students, through the service, acquire knowledge related to the subject Psychogerontology, a broader view of the psychologist's activity, which covers several aspects within the geriatric field and other practical and professional skills. Specifically, aspects linked to psychomotor skills, cognitive and socio-affective assessment, and psychological intervention are worked on.

**Which cluster this case study belongs to?**

**Choose the most relevant quality element from the cluster!**

### 3.2.3. Case study 3



Evaluation Research is a mandatory course for the second-year students at the Department of Education (Faculty of Humanities and Social Sciences). Each academic year there is an agreement signed with certain community organisation or more of them (e.g. NGOs, schools, kindergartens, museums), whose project(s) is/are then evaluated over the next three months (one semester) of the course length. Course combines theoretical background with extensive fieldwork. Every step of the course is both planned and delivered in close collaboration with partners from the community and therefore tailored to meet their particular needs. Students are organised in small research teams, focused on various aspects of the planned participatory evaluation research. Both partners (as mentors) and students work together on setting the research agenda, research questions, proper research methods, instruments, data collection, analysis and public presentation of the research results.

**Which cluster this case study belongs to?**

**Choose the most relevant quality element from the cluster!**

### 3.2.4. Case study 4

The student's idea for the e-SL project was to organize a public collection of used toys, clothes, and equipment for children in the foster care house.

After the students organized the whole collection and wanted to deliver it to the children, they realized that the organization refused the collected stuff.



When they visited children in foster care, they realized that children have different needs.

**Which cluster this case study belongs to?**

**Choose the most relevant quality element from the cluster!**

### 3.2.5. Case study 5

From the evaluation of the project we can conclude that project Senskype broadens the horizons of all participants. It brings students personal, professional and human enrichment expressed in the words of Zuzka and Ivan: "In addition to the fact that SenSkype gave us the opportunity to listen to many strong and inspiring stories, it also showed us the power of feelings that are difficult to describe in words. That feeling of growing mutual trust, that feeling of satisfaction, that spark in people's eyes when they see us, these are the moments that make us realize that the secret of personal happiness is hidden in sincere help to others". In addition to understanding new information and communication technologies and their effective use at the time of "corona restrictions" and establishing consulting relationships with advisers, the project also helped clients to contact their closest relatives, but also for them from unimaginable countries across the ocean, from the USA. Online counselling sessions fill seniors with daily joy, understanding and pleasant anticipation of meetings with counsellors who are there for them, who listen to their joys and worries and bring light to the psychologically demanding situation in the facility.



**Which cluster this case study belongs to?**

**Choose the most relevant quality element from the cluster!**

### 3.2.6. Case study 6

The teacher came up with the idea of establishing a social enterprise at the university, which university students should lead. The establishment and operation of a social enterprise was integrated into teaching several subjects with several teachers. In the beginning, only the basic idea of the activity was presented to the students - the company should produce presentation gifts for the university and its workplaces, and cooperation should be established with one of the disadvantaged groups, whose members should be involved in the production itself. The teacher had the idea that the first product could be natural soaps, but she left the students a free hand in planning and their initiative. In the end, they came up with a completely different idea, namely the production of ecological canvas bags from used fabrics.

Seniors who will sew them and young people with disabilities who will paint on them will be involved in their production. They called them “Story Pockets”. They are passionate about the activity and you can feel that it is their project in every step they take, if they had stayed with the original idea, their participation would definitely have been lower.



**Which cluster this case study belongs to?**

**Choose the most relevant quality element from the cluster!**

### 3.2.7. Case study 7

In a service-learning project at the university, a group of students worked together, and after a long time, they discovered that the group members were not equally involved in the activities and that everyone had different ideas about how the activities should be carried out. The conflict between students became so intense that one of them completely stopped communicating with the team. Since one of the educational goals was to learn to work in a team, reflection and joint communication with the teacher were aimed at analysing these conflicts and prerequisites for cooperation. In the end, the project was completed, even if the collaboration was not ideal until the end.

However, in the final reflection, male and female students had a positive perception of how much they learned about teamwork, team leadership, and division of tasks.



**Which cluster this case study belongs to?**

**Choose the most relevant quality element from the cluster!**

### 3.2.8. Case study 8

During the COVID-19 pandemic, students led by a teacher started organizing regular counselling for people in social service facilities. For them to connect, the facility bought tablets, on which students and social workers first taught the seniors how to work, and only then started providing regular online counselling. The use of tablets allowed clients to talk on the phone and see each other and the students, which created a better space for mutual interaction.



**Which cluster this case study belongs to?**

**Choose the most relevant quality element from the cluster!**

### 3.2.9. Case study 9

“I’m like you” was born from a group of 3 psychology students who decided to face the cyberbullying problem. Their aim was to create workshops to take to schools to raise awareness among children.

During the pandemic, they rethought their project.

They decided to open an Instagram page, “lo come te” (I’m like you), to raise awareness on this issue, which felt even more urgent because, during the pandemic, social media were the only way to have relationships with others.



The students involved children through stories, drawings, and direct experiences shared on the Instagram page. They created different contests and developed a small active community around this Instagram page.

**Which cluster this case study belongs to?**

**Choose the most relevant quality element from the cluster!**

### 3.2.10. Case study 10

The aim of the service-learning programme evaluation was to find out whether the programme met the goals of the education and the goals of the service, how the students evaluate their experience in the programme and what challenges they encountered.

The aim of this evaluation is also to identify the potential and limits of this type of professional practice in the education of social workers in the future.

To evaluate the programme, we used inputs from several tools: continuous records of calls made associated with reflection, final self-reflection of students, final evaluation of the program by students and final evaluation of the programme by clients - a record of the interview.



**Which cluster this case study belongs to?**

**Choose the most relevant quality element from the cluster!**

### 3.2.11. Case study 11



Final presentation of the project took place during a conference on rare diseases developed in the university, where two students and the responsible person of the project explained it to the audience composed of families, students and professionals in health and education.

**Which cluster this case study belongs to?**

**Choose the most relevant quality element from the cluster!**

### 3.2.12. Case study 12

In the Earsl to the soul program, the main task of the students was to be in telephone contact with a lonely person, optimally 3 times a week, while the contact was always initiated by the student. Each week, students filled out a record of the calls they made. These also included a brief reflection and evaluation of contacts with clients. Each student was assigned a tutor, who was a teacher from the Department of Social Work. The tutor was in regular contact with the students and provided consultations if necessary. The meetings with the tutor also served to reflect on the process of



developing or deepening communication skills and personal and professional development. The programme also included mandatory group supervision aimed at reflecting on the experience of the relationship with the client and problematic situations. Working in the programme was set for a period of 3 months from the training. In the




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final phase of the programme, students attended the last online supervisory group meeting. Their task was also to end the cooperation with the clients, to fill in the written final self-reflection and the evaluation questionnaire.

**Which cluster this case study belongs to?**

**Choose the most relevant quality element from the cluster!**

**Please choose 5 elements and describe how you will implement them in your own e-SL course?**

*Write your reflection below.*



**Guidelines for content that you can use to expand your competencies:**

Find more information in **Unit3: Quality Elements in e-Service Learning** of the e-learning course available at the following link: <https://mod.srce.hr/course/view.php?id=482>



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## 4. Chapter: Instructional Design Principles

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Upon completion of this chapter you will be able to:

- identify principles of Cognitive theory of multimedia learning
- identify principles, structure and elements of digital storytelling for academic knowledge to be integrated into a real situation
- implement microlearning to increase learner engagement, motivation, and knowledge retention
- identify technology integration frameworks and utilize them to transform learning experiences in their classroom
- implement gamification elements to harness human gameplay for tackling community issues

Chapter 4 provides information on how to use instructional design principles and strategies that best fit different interactive activities and instructional goals.

## 4.1. Multimedia Instructional Principles

Multimedia (i.e. a combination of text, image, audio, video and animation) plays a critical role in making learning outcomes in online education more efficient and effective. But, it needs a detailed instructional approach to make each element of multimedia stand out and contribute to the learning process.

Applying multimedia instructional principles, a teacher can produce educational materials using a student-centered design that aims to adapt the multimedia to support human cognition.

These 15 principles were developed by R. Mayer (2021) who integrated 3 key educational psychology theories:

- **Paivio's Dual Coding theory** (there are two separate channels for processing information - auditory and visual),
- **Sweller's Cognitive Load Theory** (each channel has a limited and finite capacity),
- **Baddeley's model of working memory** (learning is an active process of filtering, selecting, organizing, and integrating information based upon prior knowledge).

One of the foremost goals of **Cognitive Theory of Multimedia Learning** is to guide the development of effective instruction based upon consideration of how the human brain functions and the ways in which individuals cognitively process information. That is, the aim is to design instructional materials based on the optimal ways that people learn. The fifteen principles of multimedia instructional design are organized into three sections – reducing extraneous processing, managing essential processing, and fostering generative processing.

**Extraneous processing** is cognitive processing during learning that does not serve the instructional goal – such as attending to irrelevant information or trying to make up for confusing layout of the lesson. How can we reduce extraneous processing? Mayer offers Five principles to Reduce Extraneous Processing.

**Coherence principle** claims that people learn better when extraneous material is excluded rather than included. Learning is improved when interesting but irrelevant words and pictures, sounds and music as well as unneeded words and symbols are excluded from a multimedia presentation. Extraneous material competes for cognitive resources in working memory and can divert attention from the important material, disrupt the process of organizing the material, and prime the learner to integrate the material with an inappropriate theme.

In some situations, it may not be possible to eliminate extraneous material from a lesson. The solution is to insert cues that direct the learner's attention toward the

essential material, which is a technique called **signalling**. Signalling the verbal material involves adding cues such as an outline at the start of the lesson, headings that are keyed to the outline, vocal emphasis on key words, and pointer words such as “first . . . second . . . third.” We might not only signal the verbal material, but also signal the pictorial material. Visual signalling involves adding visual cues such as arrows, distinctive colours, flashing, pointing gestures, or greying out of nonessential areas. The signals do not add any new information but rather highlight (or repeat) the essential material in the lesson.

**People learn better from graphics and narration than from graphics, narration, and printed text.** Redundancy creates extraneous processing because the visual channel can become overloaded by having to visually scan between pictures and on-screen text, and because learners expend mental effort in trying to compare the incoming streams of printed and spoken text.

**Students learn better when corresponding words and pictures are presented near rather than far from each other on the page or screen.** When corresponding words and pictures are near each other on the page or screen, learners do not have to use cognitive resources to visually search the page or screen, and learners are more likely to be able to hold them both in working memory at the same time. When corresponding words and pictures are far from each other on the page or screen, learners have to use cognitive resources to visually search the page or screen, and learners are less likely to be able to hold them both in working memory at the same time.

**Students learn better when corresponding words and pictures are presented simultaneously rather than successively.** When corresponding portions of narration and animation are presented at the same time, the learner is more likely to be able to hold mental representations of both in working memory at the same time, and thus, the learner is more likely to be able to build mental connections between verbal and visual representations. When corresponding portions of narration and animation are separated in time, the learner is less likely to be able to hold mental representations of both in working memory at the same time, and thus, the learner is less likely to be able to build mental connections between verbal and visual representations.

Following the reduction of extraneous processing is the essential processing overload - a situation in which the cognitive processing of the basic material in the lesson is so demanding that there is little or no remaining cognitive capacity to engage in deeper processing of the material. **Essential processing overload** is likely to happen when the essential material is complex, the learner is inexperienced, and the presentation is fast paced.

What is **essential material**? Essential material is the core information from the lesson that is needed to achieve the instructional goal. How can we manage essential processing?

In viewing a fast-paced narrated animation that explains the steps in a process, some learners may not fully comprehend one step in the process before the next one is

presented, and thus, they may not have time to see the causal relation between one step and the next. What can be done to help learners in situations in which the required essential processing exceeds the learner's available cognitive capacity? In segmenting, we break a complex multimedia message into smaller parts that are presented sequentially with pacing under the learner's control. Thus, the two key features of segmenting are breaking a lesson into parts that are presented sequentially, and allowing the learner to control the pacing of movement from one part to the next.

What Is **Pre-training**? When the material in a multimedia lesson is complex for a learner and is presented at a fast pace, the learner may not have enough cognitive capacity to engage in the process of mentally representing the material. One way to manage essential processing is to equip the learner with knowledge that will make it easier to process the lesson.

How Does Pre-training Work? When learners view a narrated animation, they must engage in two kinds of essential processing – understanding how the causal system works and understanding how each component works. When the learner already knows the name and characteristics of each part, the learner can engage in cognitive processes for building a causal model of the system, leading to better understanding. In this way, pretraining serves to off-load some of the essential processing onto the pre-training episode. Thus, pre-training provides prior knowledge that reduces the amount of processing needed to understand the narrated animation.

People learn more deeply from pictures and spoken words than from pictures and printed words. When making a lesson consisting of animation and words, present the words as narration rather than as on-screen text.

In the animation-with-on-screen-text version, both the pictures and the words enter the cognitive system through the eyes, causing an overload in the visual system. In the animation-with-narration version, the words are off-loaded onto the verbal channel, thereby allowing the learner to more fully process the pictures in the visual channel.

In a situation when learners have cognitive capacity available but are not motivated enough to use it for making sense of the material is called generative processing underutilization. When the on-screen tutor is not very friendly or shows boring material, learners may not be inclined to work hard to understand what he is saying. Learners may fail to engage in generative processing because they are not motivated to make sense of the material.

What is **generative processing**? Generative processing is cognitive processing aimed at making sense of the material and includes organizing the incoming material into coherent structures and integrating these structures with each other and with prior knowledge.

Lastly, Mayer offers these **seven principles to Foster generative processing**.

**Principle 1:** When words and pictures are both presented, learners have an opportunity to construct verbal and visual mental models and to build connections between them. When words alone are presented, learners have an opportunity to build a verbal mental model but are less likely to build a visual mental model and make connections between the verbal and visual mental models.

**Principle 2:** In a narrated animation personalization involves using personal pronouns in the narration script. When learners feel that the author is talking to them, they are more likely to see the author as a conversational partner and therefore will try harder to make sense of what the author is saying.

**Principle 3:** Whenever possible, use a human voice for narration.

**Principle 4:** the static image of the instructor on the screen can be distracting, even creepy, because it does not display human-like movement, eye-gaze, and gesture. This can violate the coherence principle and thereby create extraneous processing.

**Principle 5:** simply being able to see an image of an instructor is not necessarily enough to cultivate a sense of social presence among learners. Rather, social presence is aroused in scenarios when learners can observe their instructors engaging in high-embodiment behaviours similar those used during in-person interactions in the real world. High-embodiment includes using hand gestures while talking, maintaining eye contact while talking, drawing graphics by hand while talking or manipulating objects from a first-person perspective. When instructors in multimedia lessons engage in high-embodiment behaviours, they provide a positive social cue that primes a sense of social partnership in the learner, causing the learner to try harder to understand the instructional message and thereby learn more deeply.

**Principle 6:** Mayer suggested that although multimedia lessons incorporating virtual reality technologies may stimulate learners' sense of presence in the short-term, the attention-grabbing and interest-catching features of virtual reality environments might also divert learners limited cognitive processing capacity away from important instructional content as they engage with virtual sensory and motor distractions. Although the perceptual realism of immersive virtual reality may increase the learner's emotional response and feeling of presence, the amount of details presented via virtual reality environments might ultimately create extraneous processing that distracts the learner from the core material of the lesson, violating coherence principle. The empirical evidence which is currently available does not appear to suggest that multimedia lessons employing 3D technologies are any more effective than lower immersion 2D lessons when it comes to facilitating generative processing and learning.

Finally, generative activities refer to specific tasks that learners engage in during multimedia lessons with the intention of promoting deeper, more meaningful learning. Summarizing instructional content, for example, is a generative activity in that it requires learners to select information to put into summary, organize it into a coherent set of sentences, and integrate it with prior knowledge by putting it in their own words. When instructors provide learners with opportunities to summarize, map, draw,

imagine, self-test, self-explain, teach, or enact instructional content, they directly stimulate learners' selection of important information, organization of information into coherent mental representations, and integration of mental representations with prior knowledge already stored within the long-term memory.

## 4.2. Digital storytelling

Digital storytelling is a form of digital media production that enables the sharing of stories **digitally** with technological support. Digital stories are often embodied in the art of storytelling combined with a variety of multimedia tools such as audio, visual and video (Dönmez & Yegen, 2021).

Digital storytelling can focus on a particular topic and express a point of view. Through the use of digital storytelling, students become active producers of knowledge. For an online guide for using digital storytelling in the classroom, visit [digitalstorytelling.coe.uh.edu](http://digitalstorytelling.coe.uh.edu), and for examples of digital storytelling to promote social change read the STORYTELLING AND SOCIAL CHANGE: A STRATEGY GUIDE (<https://narrativearts.org/story-guide/>).

### 4.2.1. The Digital Storytelling Process

The storytelling process can be broken down into 7 steps (adapted from [8 Steps to Great Digital Storytelling by Samantha Morra](#), used under [Creative Commons BY 3.0](#))

#### 1. Determine what you want to tell.

In the very beginning, you need to find out and clarify what your story is about, the **overall purpose of the story**. Come up with an idea, the main point of your story and your perspective as an author.

#### 2. Come up with a dramatic question or problem.

Stories need a question that keeps the viewer's attention and will be answered by the end of the story or something to be solved.

#### 3. Add your emotions.

Stories need serious issues that matter and come alive in a personal and powerful way. This connects the audience to the story. Once you identify the emotions in your story (whether they be funny, heart-warming, passionate or sad) you can decide how to convey them to your audience.

#### 4. Find the moment of change and use dramatic arc.

When you clarify insight, emotions and meaning of your story, you need to tell the story by identifying a single moment to illustrate your insight. Use the **dramatic arc** storytelling technique to tell a compelling story. The dramatic arc is divided into 5 parts: exposition, rising action, climax, falling action, and resolution. Introduce your



story in the **exposition** with a **dramatic question** that will be a teaser to lead your audience throughout the story. Then you build excitement for your audience through rising action all the way up to the climax, which is the big pivotal event in your story. The falling action of your story will lead your audience to a resolution.

### 5. Assemble your story.

When you know the story, emotions you want to show and the moment of change in your story, you need to work on the **visual** and **audio components** of the story to bring it to life for your audience and help them connect emotionally with the content. Assemble your story by spreading out your notes and images and composing your **script** and **storyboard**.

### 6. Pay attention to the economy of the details.

You can easily overload the audience with too much content, so put in just enough content to tell the story.

### 7. Show your story.

Share your story with the audience, collect feedback and reflect on how you can improve your story.

## 4.2.2. Useful tools for digital storytelling

One of the important skills in digital storytelling is the selection of tools for each multimedia element in the story. Depending on your audience and the topic of the story, you can select tools from a large array of digital tools. Some useful tools for digital storytelling are described below.

### 4.2.2.1. Images

Images should enhance your story and attract your audience.

There is a whole range of open resource images that you can use in your story.

- [Flickr – Creative Commons](#)
- [Pics4Learning](#)
- [Getty Open Content](#) - The Getty makes available, without charge, all available digital images to which the Getty holds the rights or that are in the public domain to be used for any purpose. No permission is required.
- [Google Images](#) - After you do a Google Image search, click Search Tools then select Creative Commons licences to check the licence details.
- [Pixabay](#)
- [Clippix ETC](#)
- [Open Clip Art Library](#)

### 4.2.2.2.Animation

There are free programs to create animations, like [Plotagon](#), [Pencil2D](#) and [Animaker](#). You can create stop motion animations with apps such as [Stop Motion studio](#), or [Cloud Stop Motion](#).

### 4.2.2.3.Comics

Creating comics is a great way to bring a story to life with characters and dialogue. Check out this comic maker applications and websites:

[Comic Strip - Comic Maker](#)

<https://www.makebeliefscomix.com/Comix/>

<https://www.pixton.com/>

### 4.2.2.4.Audio

To enhance your digital story, you can use different types of audio, like narration, background music or sound effects.

Free audio is available here:

- [YouTube Audio Library](#)
- Audio-Micro - [Free Effects](#)

If you are recording narration, here are suggestions to create successful recordings (source: <https://tlp-lpa.ca/digital-skills/digital-storytelling>)

Recording Tips

- Choose a quiet location to record
- If your computer has a noisy fan, move as far away from it as possible
- Ensure you are getting good levels in your recording software (averaging between -6 and -3 dB)
- Speak in a loud, clear voice
- For headsets - move the microphone slightly above or below the mouth to help avoid excessive breath noises and loud "p" and "b" sounds (also known as plosives.)
- Always make a test recording and listen back to it before you begin

### 4.2.2.5.Video

There are many applications and programs for creating and editing videos.

[Shotcut](#): an open source cross-platform video editor

[Animoto](#) turns your images and text into eye catching videos

[Powtoon](#). uses characters and animation



### 4.2.2.6. Interactive activities

Interactive activities are very useful to engage your audience to answer questions and interact with the story.

Here are some tools for interactive activities:

[H5P](#) makes it easy to create interactive content by providing a range of content types for various needs including quizzes, memory games, hot spots, drag and drop, and branching stories.

[Twine](#) is an open-source tool for telling interactive, nonlinear stories that allows you to create a branching narrative with game elements.

[ThingLink](#) allows you to improve engagement and learning results of your audience with interactive media: images, videos, virtual tours, 3D models and simulations.

[Scratch](#) enables you to make games and stories using block coding.

### 4.2.2.7. Presentations

You can use presentation software like Microsoft Powerpoint for digital storytelling.

But, there are other tools, like:

Prezi: <https://prezi.com/>

Google Slides: <https://www.google.com/slides/about/>

Haiku Deck: <https://www.haikudeck.com/>

### 4.2.2.8. Social media

Finally, the best way to share your digital story and collect feedback is through social media platforms (**YouTube, Twitter, Facebook, Instagram, Snapchat or TikTok**).



#### Digital storytelling examples from the Sharing Stories Foundation (Community, Country and Culture)

Sharing Stories Foundation offers a rich collection of digital resources: video footage, photographs, audio and teacher support material in three modules (Community, Country and Culture) to assist students and teachers in their engagement with the Aboriginal and Torres Strait Islander Histories and Cultures Cross Curriculum Priority

Area. Each module includes a brief introduction in which Elders and community members, involved in the production of the work, shares a story in relation to these themes or ideas.

SharingStories has run workshops with Indigenous young people in remote communities for many years. In these workshops, they support participants as they create and produce their own digital media stories about their lives and experiences. Together with those communities, they chose materials as a basis for lessons designed

to support the inclusion of Aboriginal and Torres Strait Islander cultural and historical perspectives across the curriculum.



### StoryCenter's digital stories

StoryCenter is a space for watching to and sharing stories and here you can find digital stories with different topics, such as Community, Health, Environment, Education, Social Justice, etc.

<https://www.storycenter.org/>



### Andrew Stanton: The clues to a great story

This TED talk with filmmaker Andrew Stanton—writer of Toy Story and writer/director of WALL-E—details his knowledge of storytelling and how his life and his experiences has informed his writing.

[https://www.ted.com/talks/andrew\\_stanton\\_the\\_clues\\_to\\_a\\_great\\_story?language=en](https://www.ted.com/talks/andrew_stanton_the_clues_to_a_great_story?language=en)

## 4.3. Microlearning

Microlearning (from the Greek word “micro” meaning small) is all about **getting your eLearning in small doses, as tiny bursts of training material** that you can comprehend in a short time.

- Microlearning is performed in **short time bursts**.
- **It requires little effort** from individual sessions.
- It involves **simple and/or narrow topics and is oriented towards single learning goal**.

Microlearning does not have to be confined to mobile devices, although it is a natural fit for mobile learning.

**The microlearning examples include:**

- watching short **instructional videos on YouTube**.
- **flashcard learning**: a learner is presented with flashcards with limited content such as new foreign language words, parts of the human anatomy, countries, chemical elements, etc., to aid in memorizing them.
- solving mini **training quizzes**
- receiving small nuggets of information through email, SMS, IM, etc. (e.g. “word of the day”)

The recent studies show that Generation Z and Generation Alpha actively use smartphones and prefer microlearning to traditional learning methods. They can use

their favourite, familiar mobile devices to engage with microlearning. They can learn anywhere, whenever they have a few minutes of downtime.

They can complete short units of microlearning in between meetings, during the commute, or on breaks.

According to these studies, our attention span has reduced dramatically in recent years due to the amount of information we are bombarded with daily. People today are likely to forget as much as 50 to 80 percent of information after a training event if the learning is not reinforced. Additionally, we can only retain up to seven new pieces of information in our short-term memory. Therefore, it is important to use microlearning which improves focus and supports long-term information retention.

### 4.3.1. The Microlearning Process

We use our working memory when dealing with new information such as while problem solving.

Cognitive load is the amount of information a human is trying to process in working memory at any one time.

Cognitive limit is the maximum number of chunks a person can process in working memory at any one time. Our limited working memory is the reason that our brain likes to store information in codes chunks also known as schemas.

Schemas help us keep the cognitive load low on our working memory. This helps us store information in our long-term memory.

Storing information in long term memory helps us build domain-specific knowledge, which can help us solve problems effectively. This is one of the key differences between how experts solve a problem and how novices might address it.

Experts begin solving a problem by choosing a strategy that they are familiar with, i.e. by tapping into their acquired domain-specific knowledge.

Novices approach a problem by looking for possible clues or steps that can help them solve it. This is also known as means-ends analysis. This process can be time consuming and frustrating and in-turn overload our working memory.

When we overload our working memory, new schemas can't be established and hence no domain-specific knowledge can be acquired, thereby affecting our ability to solve problems effectively. To help our learners with effective problem solving, we need to share both the subject-specific declarative knowledge and procedural knowledge.

You can see an example of a micro-lesson by *Nidhi Sachdeva: How Learning Happens* that is brief, highly engaging and created to simplify complex learning strategies in the simplest way possible in the following link: <https://youtu.be/E5zdVRYQlvc>.



#### Exploring Micro and Nano Learning

EdCompass has published a handbook [Exploring Micro and Nano Learning](#) where you can find additional information about benefits and limitations of microlearning, the most common types of assets

used in effective microlearning, the research behind microlearning as well as ways of incorporating microlearning strategies in your classroom.



### **Microlearning Ebook: Strategy, Applications, & More**

ELM Learning has published a handbook [Microlearning Ebook: Strategy, Applications, & More](#) where you can find additional information about how understanding neurolearning helps build strong microlearning lessons.

## **4.4. Technology Integration Models**

The presence of digital tools in the classroom means an opportunity for teachers to:

- effectively integrate technology across the curriculum,
- encourage higher-order creative and critical thinking skills,
- collaborate with the broader world, and
- transform their teaching one step at a time.

**Three technology integration frameworks** described in this chapter are aimed to supports teachers as they design, develop, and integrate digital learning experiences that utilize technology to transform learning experiences. **Along the continuum, the student engagement becomes more of the focus** and students are then able to advance their own learning in a transformational manner (Schrock, 2013).

These frameworks represent a response to the needs of the education community at a time when technology is widely adopted without adequate preparation.

### **4.4.1. SAMR (Substitution, Augmentation, Modification, and Redefinition)**

The SAMR framework guides teachers on **how to effectively infuse technology into their practices**. It looks **at levels of technology integration from a hierarchical perspective**, ranging from simple Substitution at the bottom to more transformative uses of technology at the top called Redefinition.

Developed by Dr. Ruben Puentedura (2013), **SAMR (Substitution, Augmentation, Modification, Redefinition)** looks at technology integration from a hierarchical

perspective, ranging from simple substitution at the bottom to more transformative uses of technology at the top.

SAMR divides these approaches into “**above the line**” (transformation) and “**below the line**” (enhancement) applications, with the assumption that teachers should aspire to moving “above the line” (i.e. Modification and Redefinition) in their use of classroom technology.

#### 4.4.1.1.SAMR: Substitution

**Tech acts as a direct tool substitute, with no functional change.**

“Substitution” means **using digital substitutes for traditional activities and materials.**

There is no functional change to the content, just the way that it is delivered Here, teachers are simple to perform the same tasks, with no functional change.

**Example:** teachers scan their lessons and worksheets, convert them into PDFs, and post them online using Microsoft OneDrive, Google Drive, or a similar file-sharing service.

#### 4.4.1.2.SAMR: Augmentation

**Tech acts as a direct tool substitute, with functional improvement.**

Teachers **incorporate interactive digital enhancements** like hyperlinks, or multimedia in their classes. The content remains unchanged, but students can now take advantage of digital features to enhance the lesson.

**Examples:**

- students create digital portfolios to demonstrate their understanding of a topic
- teachers gamify their quizzes with tools like **Socrative** and **Kahoot**
- teachers create virtual bulletin boards—using apps like Padlet—where students can post questions, links, and pictures.

#### 4.4.1.3.SAMR: Modification

**Tech allows for significant task redesign.**

Students and educators are now moving toward the mastery of technology rather than merely using technology.

Teachers can use a **learning management system like Google Classroom, Microsoft Teams, Moodle, or Canvas** to handle the logistical aspects like tracking grades, messaging students, creating a calendar, and posting assignments.

Using backchat channels gives opportunities for ALL learners to have a voice in class.

Students are inspired to design, create, innovate, think critically and to collaborate with their peers.

#### 4.4.1.4.SAMR: Redefinition

**Tech allows for the creation of new tasks, previously inconceivable.**

At this level, teachers are able to create entirely new learning possibilities and opportunities for students.

**Examples:**

- **virtual pen pals** connect students to other students or experts in a field
- **virtual field trips** enable students to visit locations like the Amazon rainforest, the Louvre, or the Egyptian pyramids
- students can write their own **wikis** or **blogs**
- students can record **podcasts** or **vlogs**
- students can engage in **web-based research** to understand point of view and bias

#### 4.4.2. TPaCK (Technology, Pedagogy, and Content Knowledge)

Instead of using technology along a hierarchy, TPACK **views technology knowledge as one of 3 domains of knowledge** teachers must master in order to be effective. These 3 domains all work together, and teachers should aspire to the center of the circle (Mishra & Koehler, 2006).

The TPACK model provides a framework for identifying the teacher knowledge required to integrate technology effectively within the complexities of the larger context of teaching.

In TPACK, **Technological Knowledge – TK**, is most effective when it is combined with deep **Content Knowledge – CK** (curriculum subject matter) and **Pedagogical Knowledge – PK** (teaching strategies and knowledge of the learner).

While the intersection of **Content Knowledge** and **Pedagogical Knowledge** is largely understood to be at the heart of effective teaching, adding **Technological Knowledge** into the mix provides an effective filter for teachers to really examine the way that they think about technology integration.

Filtering instructional planning through the TPACK model should **serve to eliminate frivolous or irrelevant use of technology**, and inspire teachers to make deeper connections to all aspects of effective instruction.

This framework will make you reflect on **what you want to achieve in your teaching while implementing technology** to enhance student engagement, involvement, and learning.

- What do you want to see from your students?
- What are you teaching?
- How do you go about teaching it?
- Where does technology fit into that?

TPaCK addresses the **interaction of technological, pedagogical, and content knowledge and how they relate to teaching in a technology-enhanced learning environment**.

**Technological Pedagogical Knowledge (TPK)** describes teachers' understanding how to use digital tools as a vehicle to the learning outcomes and learning experiences. Another aspect of TPK concerns understanding how such tools can be deployed alongside pedagogy in ways that are appropriate to the discipline and the development of the lesson at hand.

**Technological Knowledge (TK)** describes teachers' knowledge of what digital tools are available, which do they know well enough to use, and which would be most appropriate for the lesson at hand. It concerns teachers' ability to use various tools, but also understanding them, considering their possibilities for a specific subject area, learning to recognize when it will assist or impede learning, and continually learning and adapting to new technology offerings.

**Technological Content Knowledge (TCK)** describes teachers' understanding of how the digital tools can enhance or transform the content, how it's delivered to students, and how students can interact with it.

**Pedagogical Knowledge (PK)** describes teachers' knowledge of how students learn best and what instructional strategies are needed to meet their needs and the requirements of the lesson plan. PK encompasses the purposes, values, and aims of education, and may apply to more specific areas including the understanding of student learning styles, classroom management skills, lesson planning, and assessments.

**Pedagogical Content Knowledge (PCK)** describes teachers' understanding of the best practices for teaching specific content to specific students, i.e. teachers' knowledge regarding foundational areas of teaching and learning, including curricula development, student assessment, and reporting results. PCK focuses on promoting learning and on tracing the links among pedagogy and its supportive practices (curriculum, assessment, etc.). PCK seeks to improve teaching practices by creating stronger connections between the content and the pedagogy used to communicate it.



**Content Knowledge (CK)** describes what teachers are teaching and what is their own knowledge of the subject. CK may include knowledge of concepts, theories, evidence, and organizational frameworks within a particular subject matter, the field's best practices and established approaches to communicating this information to students. CK will differ according to discipline and level of study.

**TPACK is the end result of these various combinations and interests**, drawing from them – and from the three larger underlying areas of content, pedagogy, and technology – in order to create an effective basis for teaching using educational technology.

### 4.4.3. TIM (Technology Integration Matrix)

TIM looks at technology integration through a **matrix which provides a nuanced look at how the teacher is using technology to support an effective learning environment**. Apart from 5 levels of technology integration, TIM incorporates 5 characteristics of meaningful learning environments (Harmes, Welsh, & Winkelman, 2016).

The TIM associates **5 levels of technology integration** (**Entry, Adoption, Adaptation, Infusion**, and **Transformation**) with **5 characteristics of meaningful learning environments** (**Active, Collaborative, Constructive, Authentic** and **Goal-Directed**).

These levels of technology integration together with the characteristics of meaningful learning environments create a **matrix of 25 points of evidence**, each showing the depth and integration of the learning and technology used in particular lessons.

The TIM's **5 levels of technology integration** are very similar to the SAMR model.

Technology integration is measured in the context of each of **5 characteristics** within a 25-cell matrix. So, a teacher may be at the Adaptation level in using technology to support constructive learning, but at the Infusion level in promoting collaboration among students.

TPACK users who want to further work on the Technological Pedagogical Knowledge (TPK) section of the TPACK will find the TIM helpful when it comes to **practical implementation in the classroom**.

Also, TIM users can benefit from the TPACK when considering the role of **subject area knowledge** in the context of professional development in technology.



## 4.5. Gamification

The main task in Multimedia Instructional Design is to **optimize human learning** considering the **multimedia environment** and stated **instructional objectives**.

The guidelines for **building an effective learning environment** are given by the **ADDIE model** and **Learning experience design (LX design)**.

**ADDIE model** - five phases - **Analysis, Design, Development, Implementation, and Evaluation represent** the generic process traditionally used by instructional designers and training developers.

In the first phase of the **ADDIE model**, we have to get to know the users/learners to understand their needs, wants, and goals. Empathizing means observing and engaging with the learners to understand them on an emotional level. We consider the desired performance level for learning concepts/skills we want to teach, deployment, resources, and timeline.

In the second phase of the **ADDIE model**, we synthesize observations about our users/learners from the Analyze or Empathize stage.

Considering the ADDIE model, we design a structure of training material.

By using the design thinking process we clearly define a learner problem. That will guide the ideation process in the third stage. "**How Might We**" questions lead to the next stage in Design Thinking.

In the third phase of the **ADDIE model**, as design thinkers, we spark ideas in the form of questions and solutions through brainstorming. We start looking for content creation solutions. In this stage, we use mood boards and visualize ideas, scripting, or storyboarding to develop the content.

The next phase of the **ADDIE model** is prototyping, a crucial part of the design process. We make prototypes to test the design before investing in the final product. Creating a prototype is the step between the formalization and evaluation of an idea.

Considering the ADDIE model, the evaluation, as the last phase, follows the implementation.

**Learning experience design (LX design)** enables the learner to achieve the desired learning outcome through the learning experience created using the design thinking process. It uses the **design thinking** process – **empathize-define problem-ideate-prototype-test** to create learning experiences that enable the learner to achieve the desired learning outcomes.

**Instructional designers** are challenged to create **learning experiences** that:

- **boost learner motivation, engagement, and enjoyment**
- provide practice opportunities to gain confidence using new skills and knowledge through a flexible, dynamic, and interactive learning environment

- assess learning progress through practice
- give meaningful feedback to learners to improve performance.

**Gamification** addresses these challenges. Gamification is the application of **game-playing elements** in a non-game context.

Game rules are the blueprint for game creation following the **Mechanics–Dynamics–Aesthetics** framework of game design.

**Game mechanics** are elements that help gamify any non-game environment. They encourage learners' behaviour through rewards.

Examples of game mechanics are:

- points, levels, badges, leader boards, mission
- human-computer interface controls (“jump,” “turn,” “block”)
- collections of heuristic patterns (“achievement,” “fixed ratio reward schedule,” “virtual goods”)
- interesting narratives
- dynamic feedback mechanisms
- the illusion of choice or control (“agency”)

To maintain the student's motivation, the dynamics adjust the mechanics. Dynamics define how the game will evolve. Some students prefer competition, others social cooperation. A well-designed dynamic brings students to the next level timely to keep them interested.

Multimedia elements (art, visual appeal, animation, sound, narration) are included in game aesthetics to emphasize the motivational and emotional aspects of the game environment.

Game elements help gamify a non-game environment and should be used in line with the learning goals. The first step is to decide on the goal and identify how game elements help achieve it. **Common elements** in digital games are:

- **Achievement**
- **Reward**
- **Story**
- **Time**
- **Personalization**

As game players get satisfaction from level accomplishment and skill development, learners enjoy the same types of recognition. The sense of progression motivates continued effort. **Leader boards, points, and badges** provide a social status element. The course completion **certificate** signals achievement.

Achievements and rewards are key elements of the gamified learning experience. The reward represents external motivation and recognition for the effort and achievements. A reward schedule is used to reward the learner/player for accomplishing actions.

An adventure environment, like a scenario of preventing a disaster, or a story of victory over competitors, arouses the interest and motivation of the learner/player. Creating experiences through a compelling narrative environment includes characters, conflicts, and resolutions to immerse the learner in the story.

Using a schedule of events, e.g., before I do B and C, I must complete A, helps focus learner attention to the task at hand. Besides, a common element in board games is a timer (counting up total time) and a countdown clock that create a sense of urgency and contribute to the game dynamic.

Personalization ups learner engagement and motivation. Selecting and customizing an avatar or choosing the look-and-feel options (e.g., a dreamy theme or a bright colour theme) accommodate individual preferences. If the learner inputs a nickname into a text field, using that nickname within the environment or narrative matters, such as pulling up an earlier answer response later in the game.

Sound, subtle animations, and cool transition screens enable environmental reactions to learner actions. For a great experience, visual details and micro interaction, such as a hover-state animation, a sound effect, or a cut-screen narration matter.

Gamification has been applied to instruction to boost learner engagement and motivation. Several related terms, such as game-based learning, gamification, educational gaming, and serious gaming are being used to refer to the application of game design concepts. There is a challenge for teachers and instructional designers to adopt the role of game designers to create a learning experience.

### **The example of gamification: FitWit Mini games**

The World Health Organization study presents the first-ever global estimates of insufficient physical activity among adolescents ages 11 to 17. Lack of physical activity has health consequences, including mental health along with academic performance. Nutrition is important at any age. Nutritional knowledge for children can help establish a foundation for healthy eating habits.

Defining problem: children and adolescents do not get enough physical activity. They need knowledge about nutrition and exercise since this can impact their mental health and academic performance.

Defining objectives:

- awake the interest, among children and adolescents, in nutrition and exercise
- apply the principles of gamification to improve the motivation, interest, and involvement of children and adolescents in nutritional knowledge and exercise

- create a series of playful activities that promote knowledge acquisition
- desired behaviours – promote focus, mood, and motivation

The game aims to educate players about nutrition and exercise by visualizing the presented information in a fun way.

The decision of which tasks/questions match assessing the amount of knowledge for the two learning units:

1. nutrition
2. exercise

Activities to be carried out: play individually; the game is composed of several minigames (drag-drop, pairing, clickers) based on puzzle-based interfaces.

**FitWit Mini games** are available for download in the e-learning course: <https://mod.srce.hr/mod/resource/view.php?id=15265>



**Guidelines for content that you can use to expand your competencies:**

Find more information in **Unit4: Instructional Design Principles** of the e-learning course available at the following link: <https://mod.srce.hr/course/view.php?id=482>

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## 5. Chapter: e-SL Course Design Options

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Upon completion of this chapter you will be able to:

- analyze the characteristics of existing eSL courses
- incorporate the design elements of existing eSL courses in your own learning activities

This chapter presents you with the instructional design of the four e-service-learning courses from the four EU countries: Poland, Italy, Slovakia, Romania and Croatia .

For each course, you can analyze the level of study program, ECTS value, general framework, teaching methods, learning outcomes and the detailed description of the instructional design.

## 5.1. Course 1

**Study program:** Master (open to all programmes)

**ECTS Value:** 6

**Course status:** Elective course for students of Humanities and Social sciences

**Duration:** 1 semester

**Prerequisites:** none

**Total number of hours:** 15 hours of lectures + 45 hours of direct service

### 5.1.1. Instructional design

This is the example of an **extreme e-SL course**, where instructional and service component are implemented fully online. The **theoretical part** of the course is strongly underpinned by a corpus of research investigated in the eSL4EU project. **The instruction is provided to students as synchronous online lectures via BigBlueButton (an open source web conferencing solution for online learning) which is part of the Moodle.** During 15 weeks, students meet with a teacher online once a week in BBB for a lecture and group discussion.

The **direct service** (45 hours in a semester) implies student participation in the e-SL activity/project, presentations of project ideas and presentation of final projects via Zoom to teachers, class and community partners. Students, according to their own interest, work on the mandatory e-SL project (e-SL activity) that helps the community partner in finding solutions and satisfying needs of the local community. The aim of these e-SL projects is to solve specific issues discussed in the course.

**Service in community** begins with the introductory meeting of students, teachers and community partners via Zoom where learning objectives and community needs and resources are shared. It continues with weekly meetings between students and community partners. **The direct service to final beneficiaries is realized via Zoom, Padlet, EdPuzzle and Wordwall.**

**Teamwork activities:** students work collaboratively online using BigBlueButton, EdPuzzle, Wordwall and Padlet throughout the semester, writing e-SL project application, final project report, critical project e-portfolio on Moodle, public e-portfolio as showcase on Google site and final Prezi presentation of their e-SL project.

**Topics of the lectures (15 hours):** 1. Introduction to S-L and e-S-L; 2. Serving communities online: characteristics, challenges, needs and resources; 3. Venn diagram of relationship between the learning goals of the course, student skills and the needs of local communities; 4. E-service-learning in the STEM field; 5. Critical writing and e-S-L.; 6. Instructional design and management of the e-S-L project/activity; 7. Analysis of the student needs, their plan of the e-S-L project and project teams; 8. Vlogs/video journals in S-L projects.; 9. 13. Two sides of e-portfolio: E-portfolio as a process of learning and critical thinking vs. E-portfolio as a product of the learning process. 10. e-S-L Quality Standards.; 11. Levels of e-S-L projects.; 12. Evaluation of learning, results of the project and evaluation of e-S-L experiences; 13. Writing e-S-L Project Reports.; 14. e-Service-Learning Hackathon.; 15. Presentations and evaluation of e-S-L projects.

## 5.1.2. Learning outcomes

After the successful completion of the course, the students should be able to:

- write an application of the e-service-learning project
- analyse the needs of the local community
- manage the small e-SL project
- produce the e-SL project documentation report
- evaluate the e-SL projects by formulating arguments and counterarguments

## 5.1.3. Assessment tools

1. the individual assessment tool - student journal / blog /vlog

Each journal needs to bring the personal experience of each student, used knowledge and skills and newly acquired knowledge and skills, a list of relevant literature resources used, specific contributions a student made to the community, connections between their e-S-L experience and their study

2. collaborative assessment tools

a. e-SL project application (the assessment includes the evaluation of the project title, time-frame, project's goals (SMART criteria), selection of the partner, team members' skills, explanation of the community need, the structure of the project and the backup plan)

- b. final project report (the assessment includes the evaluation of the work packages, project's activities, outputs: milestones & deliverables, Gantt chart, etc.)
- c. in-class oral presentation of the project application (the assessment includes the evaluation of presentation skills of each student, time frames of the presentation, contact with the audience, etc.)
- d. final in-class oral presentation of the e-SL project (the assessment includes the evaluation of presentation skills of each student, time frames, contact with audience, etc.)
- e. critical project e-portfolio on Moodle (formative assessment of learning, portfolio needs to represent the critical reflection of the project team & other teams in the course, students are expected to use multimedia (video, pictures, interactions) in the creation of portfolio and to post comments on each other's projects )
- f. public e-portfolio as showcase on Google site (summative assessment of learning: site has to be informative, relevant, readable and well-designed)
- g. Prezi presentation of the e-SL project (the assessment includes the evaluation of the structure of presentation, use of keywords and the content in the cloud-based presentation)

#### 5.1.4. Exam

- 60% of the final grade is based on individual student e-S-L journal/blog/vlog;
- 40% of the final grade is based on the collaborative assessment (5% = the e-SL project application, 5% =group oral presentation of the e-S-L project application, 10% = the final e-SL project report, 5% = final oral presentation of the e-SL project, 5% = critical e-portfolio on Moodle, 5% = presentational e-portfolio on Google pages, 5% = Prezi presentation).

**Please summarize the aspects of this type of instructional design that are useful to you.**

*Write your reflection below.*



## 5.2. Course 2

**Study Programme:** Master of Science Programme in Engineering Education and Teaching **Course status:** Compulsory

**Course name:** Teaching practicum (II, III, IV)

**Duration:** 3 semesters (the course starts in the second semester of the first year of study)

**Prerequisites:** Completed Bachelor Degree in Engineering

**Total number of hours / ECTS:** 10 ECTS per semester

Workload & ECTS			
	2 <sup>nd</sup> Semester	3 <sup>rd</sup> Semester	4 <sup>th</sup> Semester
Number of hours	65h SL + 47h lectures and applications	40 h SL + 72 h lectures and applications	40 h SL + 72 h lectures and applications
ECTS	10	10	10

### 5.2.1. Learning outcomes

In times of rapid technological development, there is a strong need for skilled and innovative teachers who can arouse student interest in technical disciplines and vocational education and training. This unique MSc programme is designed for

engineers who want to earn a teaching degree where the technology subject is profiled towards either **Mechanical Engineering** or **Engineering and Management**.

Teaching practicum courses are designed to allow pre-service teachers to practice and refine their teaching skills in a regular classroom experience and to complement them other activities involving curriculum design, student mentoring, non-formal education program design and remedial education. Student teachers work closely with faculty supervisors and experienced teachers and social partners to learn how to promote student engagement and learning. After completing the courses, the students should be able to demonstrate the following sets of knowledge, skills and competencies:

Learning outcomes	
Knowledge and Understanding	Skills and competencies
Show in-depth knowledge about central concepts, principles, and methods within the fields of pedagogy, didactics, teaching and learning design	Show deepened abilities to critically and independently systemise and reflect on one's own and others' experiences and relevant research in order to support professional development and knowledge development within technology
Show understanding of how technology and natural science, as well as pedagogy and subject didactics, have a scientific foundation of theory, empiricism, and reliable experience	Show the ability to independently, and together with others, lead, plan, carry out, evaluate and develop teaching and learning within schools, and educational organisations
Show knowledge about teaching, as well as youth- and adult- learning within technology; show knowledge about the organisation of the school system, relevant policy documents, curriculum theory, and various educational-didactic perspectives	Show a good ability to carry out analysis and assessment of the development of knowledge among young people and adults
Show extensive knowledge in grading	Show the ability to identify and, in a team, manage special pedagogical needs
Show knowledge about groups and organisational processes, relations between leaders, and the importance that such processes and relations are based on equal access and opportunities principles	Show the ability to use and reflect upon information and communication technology's potentials in problem solutions for pedagogical and communicative usage
Show in-depth knowledge on how to stimulate each student's learning and development	show a good ability to communicate knowledge, experiences, and professional judgments, orally as well as in writing, and to lead and collaborate in professional discussions.

## 5.2.2. Learning and Teaching Activities

In order to develop pedagogical expertise, two types of activities are proposed to students:

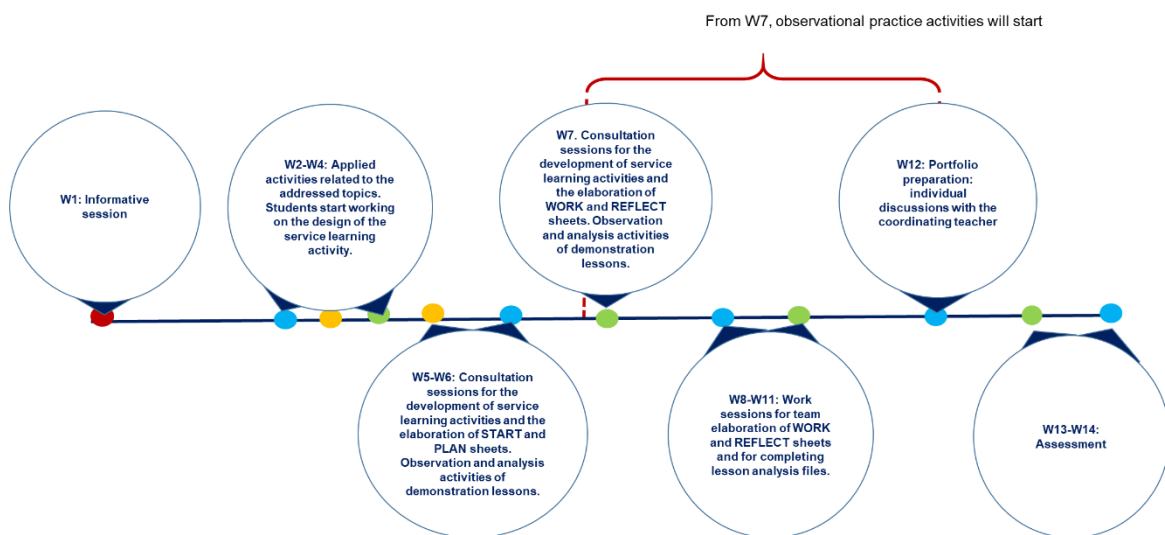
- A1 activities are related to learning experiences design (small group discovery, guided lesson storyboarding and lesson plan design, observation, co-teaching, solo teaching);
- A2 are service-learning activities, in which students collaborate with social partners to engage in community projects and activities.

A1 activities are provided in both online and face-to-face settings, depending on the nature of activity. Teaching practice in application schools will be mentored by

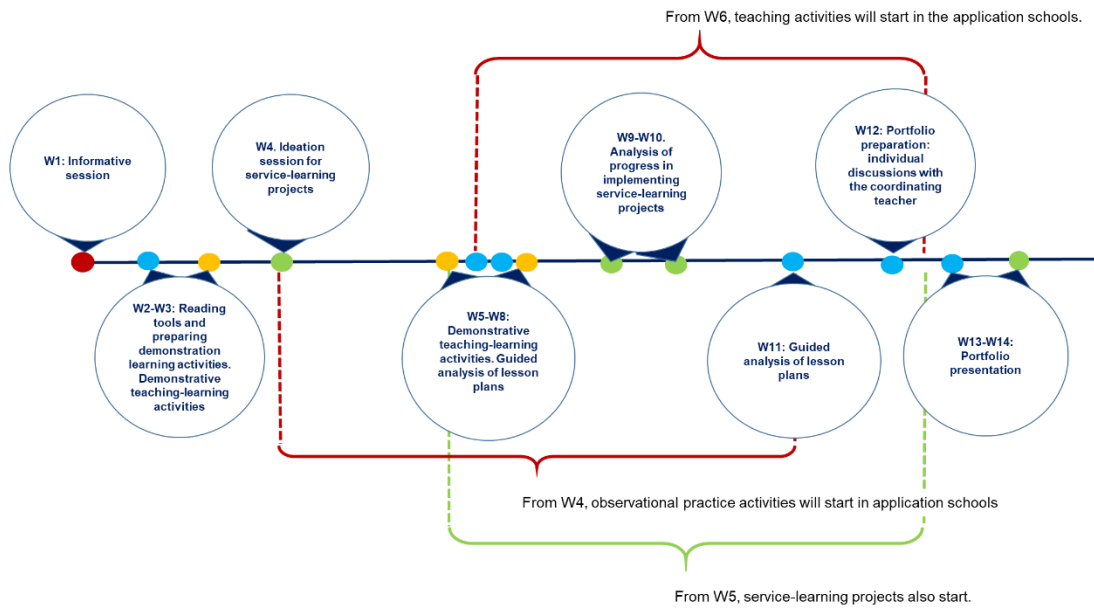
individual arrangement in face-to-face mode involving observation, discussion, co-teaching and teaching.

Similarly, A2 activities are carried out in online and face-to-face settings. Firstly, students are introduced to the course objectives and topics (what is (e)-Service Learning; (e)Service learning approaches; ways of applying the four forms of service learning approaches; key issues in service learning projects). Evaluation criteria are also presented and working tools are analysed. During the course, monitoring and/or consultation sessions are organised in which teachers check the status of projects, from planning to implementation, and provide feedback. Team work sessions are also organised.

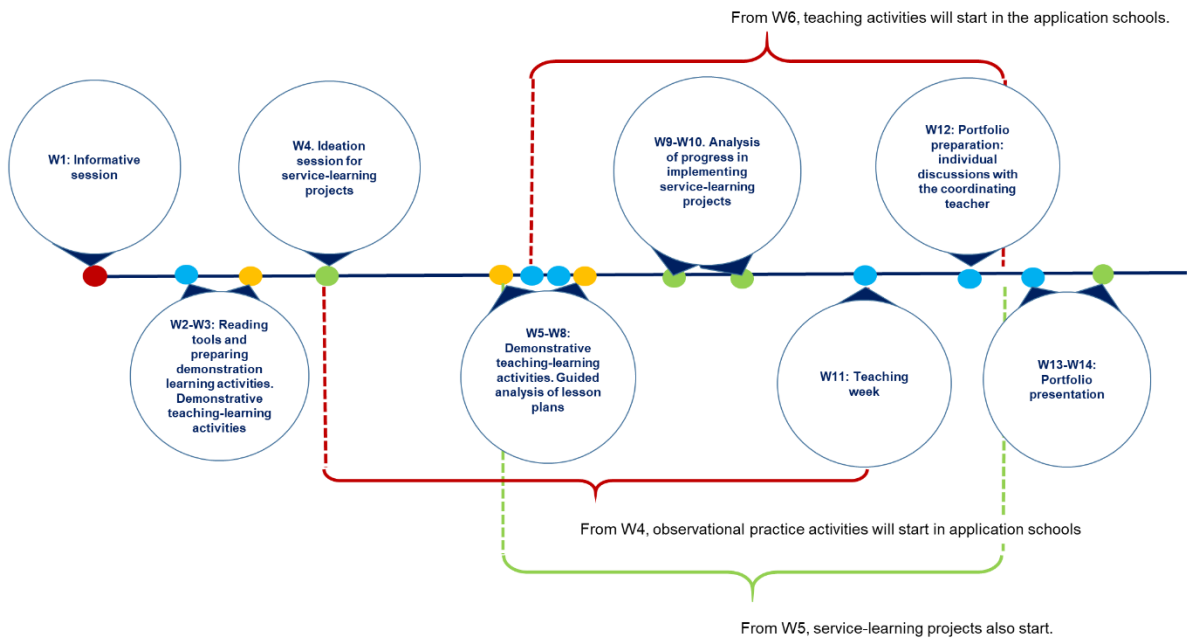
## 2<sup>nd</sup> Semester Learning Path



### 3rd Semester Learning Path



### 4th Semester Learning Path



This is the example of an **e-SL hybrid type I/II course**, where instructional or service components are implemented partial online.

The documents presented in the annexes guide the service learning activities: identification and analysis of community needs (START Sheet and PLAN Sheet), the organisation of the activity and its implementation (WORK Sheet), and the reflective analysis (REFLECT Sheet).

### 5.2.3. Assessment

For **each semester**, the assessment focuses, on the one hand, on student participation in activities and, on the other hand, on developing and defending a portfolio.

The portfolio includes the START, PLAN, WORK and REFLECT sheets completed in accordance with the service-learning projects designed and carried out. Also, the portfolio includes documents supporting A1 activities: observation sheets of lessons, lesson plans as well as a critical analysis of the student's teaching activity.

#### Assessment Summary

- Assessment task: Lesson Observation / Assessment Type: Summative and Formative / Weighting: 10%
- Assessment task: Lesson Planning / Assessment Type: Summative and Formative / Weighting: 20%
- Assessment Task: Teaching / Assessment Type: Summative and Formative / Weighting: 20%
- Assessment Task: Critical Reflection / Assessment Type: Summative / Weighting: 10%
- Assessment Task: Service-learning projects / Assessment Type: Summative and Formative / Weighting: 20%
- Assessment Task: Portfolio defense / Assessment Type: Summative / Weighting: 20%

#### 5.2.3.1. START sheet

<b>Team</b>				
<b>Community</b>				
<b>The proposed approach</b>	<input type="checkbox"/> Direct service learning	<input type="checkbox"/> Indirect service learning	<input type="checkbox"/> Advocacy	<input type="checkbox"/> Research Service learning
The START sheet will be used to support the investigation phase of the service learning activity.				
<b>Inquiry</b>				<b>Mentions on the investigation work</b>

	<b>carried out by the team</b>
<p><i>At this stage, the master students and community partners investigate issues they can address. This may involve desk research, interviews, discussions, questionnaires, visits. All these actions are designed to answer the below questions:</i></p> <ul style="list-style-type: none"> <li>● <i>what's happening in this community?</i></li> <li>● <i>what are the problems? What causes these problems?</i></li> <li>● <i>there is a real need?</i></li> <li>● <i>what knowledge and skills can the team contribute?</i></li> <li>● <i>are there ethical issues we should take into account?</i></li> </ul>	

### 5.2.3.2.PLANNING sheet

<b>Team</b>				
<b>Community</b>				
<b>The proposed approach</b>	<input type="checkbox"/> Direct service learning	<input type="checkbox"/> Indirect service learning	<input type="checkbox"/> Advocacy	<input type="checkbox"/> Research Service learning
<b>Planning</b>				<b>Mentions on the planning work carried out by the team</b>
<p><i>At this stage, the master students and community partners decide on an identified problem and explore it further in order to operationalise the actions that the team can carry out for the community. This may involve meetings, brainstorming sessions, desk research. All these actions are designed to answer the questions below:</i></p> <ul style="list-style-type: none"> <li>● <i>how can the team contribute?</i></li> <li>● <i>what concrete contributions could we make?</i></li> <li>● <i>what could be the consequences of our actions?</i></li> <li>● <i>what resources do we need?</i></li> </ul>				

### 5.2.3.3.WORK sheet

<b>Team</b>	
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<b>Community</b>				
<b>The proposed approach</b>	<input type="checkbox"/> Direct service learning	<input type="checkbox"/> Indirect service learning	<input type="checkbox"/> Advocacy	<input type="checkbox"/> Research Service learning
The WORK sheet will be used to support the action phase of the service learning activity.				
<b>Action</b>			<b>Mentions on the implementation of the actions/project proposed by the team</b>	
<p><i>At this stage, the Masters students start implementing the proposed actions or the project, if applicable. Community visits, online meetings, interactions with community members may be required. Reflection questions:</i></p> <ul style="list-style-type: none"> <li>• <i>is the proposed activity/project authentic?</i></li> <li>• <i>are the actions well founded?</i></li> <li>• <i>what could be the challenges in carrying out the project?</i></li> <li>• <i>how well do we work as a team?</i></li> <li>• <i>how could we improve what we do?</i></li> </ul> <p><i>If possible, the work of the team can be documented with photographs of the activities/projects carried out.</i></p>				

### 5.2.3.4. REFLECT sheet

<b>Team</b>				
<b>Community</b>				
<b>The proposed approach</b>	<input type="checkbox"/> Direct service learning	<input type="checkbox"/> Indirect service learning	<input type="checkbox"/> Advocacy	<input type="checkbox"/> Research Service learning
The REFLECT sheet will be used to support the self-assessment and reflection stage of the service learning activity.				
<b>Reflect</b>			<b>Carry out a self-assessment of your work</b>	
<p><i>At this stage, the master students carry out a self-evaluation of the work carried out. Reflection questions:</i></p> <ul style="list-style-type: none"> <li>• <i>What have we learned from the people he worked with?</i></li> <li>• <i>Who can we share this experience with?</i></li> <li>• <i>what can others learn from what we have done?</i></li> <li>• <i>what could be the next steps?</i></li> <li>• <i>how could my experience be applied in other contexts?</i></li> </ul> <p><i>You can include photos to support your analysis.</i></p>				

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**Please summarize the aspects of this type of instructional design that are useful to you.**

*Write your reflection below.*

### 5.3. Course 3

This is the example of an (e-)Service-Learning course, where the instructional component is in presence and the Service-Learning component could be implemented in presence or online.

During 10 weeks, student of the Department of Human Sciences meet faculty in presence once a week for a lecture and group activity and discussion.

The (e-)Service-Learning projects (20 hours minimum in a semester) implies students' participation in solidarity activities for the community with a community partner. Students, according to their own interest, work on a planification and implementation of an e-SL project that address needs of the identified community (could be online community as well). The aim of these e-SL projects is to solve specific issues related to the Sustainable Development Goals (SDGs) discussed in the course.

1. Department	Human Sciences
2. Course status	Elective course for students from: <ul style="list-style-type: none"> <li>- Communication, Marketing and digital media</li> <li>- Psychology</li> </ul>



	<ul style="list-style-type: none"> <li>- Science of Education</li> <li>- Science of primary education</li> </ul>
3. Teaching	<b>e-Service Learning and Sustainable Development Goals</b>
4. Teaching period	2 <sup>nd</sup> semester: February - June
5. Total number of hours	40 hours: <ul style="list-style-type: none"> <li>- 20 hours of instruction</li> <li>- 20 hours of monitoring the SL experiences</li> </ul>
6. Scientific Disciplinary Sector (SSD)	M-PED/03
7. Total no. University Educational Credits (CFU)/ECTS	3 ECTS
8. Course learning objectives	<p>The main objectives of the course are:</p> <ul style="list-style-type: none"> <li>• Dissemination of knowledge related to Service-Learning;</li> <li>• Knowledge and understanding of the theme of social solidarity;</li> <li>• Knowledge and understanding of the topic of social responsibility;</li> <li>• Knowledge and understanding of the Sustainable Development Goals and related targets of the 2030 Agenda as an integrating background for applying Service-Learning;</li> <li>• Development of practices to limit socio-cultural disadvantages;</li> <li>• Development of planning skills in the context of Service-Learning;</li> <li>• Knowledge and understanding related to conducting, documenting and evaluating a Service-Learning project;</li> <li>• Development of the soft skills related to the planning, implementation and evaluation of a Service-Learning project.</li> </ul>
9. Course programme	<p>The main objective of the course is to design and implement a real Service-Learning project, not a simulation. Service-Learning is a pedagogical approach rooted in the civic approach of the American pedagogue and philosopher John Dewey and in the aspiration of the educational philosopher Paulo Freire to transform reality through action and reflection. It is a pedagogical proposal based on experiential learning through which students are engaged in activities that address social needs by applying knowledge and skills related to their course of study. Through the course, the aim is to present the pedagogy of Service-Learning, its possible application in education and training and its impact on the development of social responsibility. Integral background for the application of Service-Learning is the 2030 Agenda and the 17 Sustainable Development Goals (SDGs) of the United Nations. As UNESCO (2021) states, the SDGs themselves offer an interpretative framework around which to structure interdisciplinary problem- and project-based learning that helps students to develop the skills to advance the full range of goals.</p>

	<p>During the course, care will be taken to accompany students in the creation of service-learning projects, monitoring both their design and implementation phases.</p>
10. Reference texts	<p><b>Attendees:</b></p> <p>The course is characterized by the fact that the student actually designs and implement a service-learning project in which he/she deploy knowledge and skills related to him/her course of study to respond to social problems/needs together with your community. To take the exam, the development and execution of a service-learning project is required. Those who are unable to do this during the course they can do SL during the summer in an intensive mode.</p> <p>Reference text: Fiorin, I. (ed.) (2016). <i>Oltre l'aula. La proposta del Service Learning [Beyond the classroom. The pedagogical proposal of Service Learning]</i>. Milan: Mondadori University.</p> <p>Other reference materials: LUMSA e-Learning course (transversal course sections): <u>"The 2030 Agenda and the Sustainable Development Goals"</u>.</p> <p><b>Non-attenders:</b></p> <p>To take the examination, the development and execution of a service-learning project is required. Those who cannot do this during the course can take it during the summer term in intensive mode.</p> <p>Reference text: The same as above.</p>
11. Prerequisites	<p>No prerequisites are required, but commitment to one's community (including previous volunteer experience) is a trait that will help in the drafting and execution of the service-learning project.</p>
12. Teaching methods	<p>The training proposal is implemented by alternating moments using active learning method with brief moments of explanation. Problem posing and problem-solving skills are promoted, from a cooperative perspective, through pair and group work.</p>
13. Description of the methods and criteria for verifying learning	<p>The exam is designed to ascertain the theoretical and practical understanding of the topics covered. The ability to conduct and evaluate a service-learning project will also be assessed, as well as the ability to make critical judgements and use technical language regarding SL and SDGs.</p> <p><u>Exam</u>: 60% of the final grade is based on student e-SL report; 10% of the final grade is based on group oral presentation of the e-SL project application; 30% of the final grade is based on the self-assessment soft skills and Sustainable development Goals skills</p>

14. Criteria for the assignment of the final exam	Having attended the course and having realized a small Service-Learning project. It is not possible to take the examination if the student has not designed and realized a Service-Learning activity (the study of one or more texts is not a sufficient condition for taking the exam). Having written a e-SL project report by providing documentation, formulating arguments, also in term of evaluation.
15. Instructional Design	<p>Lecture topics (20 hours: 10 lessons 2 hours each)</p> <ol style="list-style-type: none"> <li>1. <u>Theoretical part</u>: Introduction to SL and e-SL; <u>Practical part</u>: ice-breaking activity with students.</li> <li>2. <u>Theoretical part</u>: The 2030 Agenda as an integrating framework to apply SL or e-SL + student's testimonies from previous year SL course; <u>Practical part</u>: selection of each student of an SDG and formation of working groups (WG).</li> <li>3. <u>Theoretical part</u>: Serving (online) communities: characteristics, challenges, needs and resources; <u>Practical part</u>: world café activity on SDGs in the WG.</li> <li>4. <u>Theoretical part</u>: Presentation of community partners: Sant'Egidio, Scholas Occurrentes, Red Cross, EIS School, ELIS NGO; <u>Practical part</u>: Questions and discussion.</li> <li>5. <u>Theoretical part</u>: Technology in SL/e-SL and students' skills; <u>Practical part</u>: Group discussion on how to link the chosen SDGs to the community partner (if of interest) + diagnosis design activity.</li> <li>6. <u>Theoretical part</u>: Design and management of an e-SL project; <u>Practical part</u>: WG SL/e-SL co-design activity (see Annex 1).</li> <li>7. <u>Theoretical part</u>: Quality standards of the SL/e-SL + Analysis of students' needs related to project plan and teams; <u>Practical part</u>: Continuation of WG SL/e-SL co-design activity (see Annex 1).</li> <li>8. <u>Practical part</u>: Students' presentation of their final project proposal.</li> </ol> <p>Minimum 20 hours of project application</p> <ol style="list-style-type: none"> <li>9. <u>Practical part</u>: State of the art of the (e-)SL projects by students WG + discussion on challenges and learnings goals.</li> <li>10. <u>Practical part</u>: Celebration and Self-assessment on soft skills and SDGs.</li> </ol>
16. Expected learning outcomes (according to the	The expected knowledge and understanding of the topics covered at the end of the course is as follows: <ol style="list-style-type: none"> <li>a. Knowing and understanding the characteristics of the Service-Learning approach;</li> </ol>

<p>Dublin descriptors) <i>Knowledge and understanding</i></p> <hr/>	<ul style="list-style-type: none"> <li>b. To know and understand the social dynamics related to the area of cultural and social poverty in line with Agenda 2030;</li> <li>c. Know and understand the reality of service-learning in different world contexts (European, Latin American, North American and Asian);</li> <li>d. Know and understand what distinguishes service-learning from other forms of fieldwork, voluntary work and/or internship;</li> <li>e. Recognise the service-learning approach within the main pedagogical approaches.</li> </ul>
<p>17. Expected learning outcomes (according to the Dublin descriptors) <i>Applied knowledge and understanding</i></p> <hr/>	<p>The knowledge and applied comprehension skills of the topics covered that are expected at the end of the course are:</p> <ul style="list-style-type: none"> <li>a. Knowing how to apply basic design principles related to Service-Learning;</li> <li>b. Knowing how to read the needs of the society and structuring a path to change the reality of discomfort encountered;</li> <li>c. Knowing how to implement a service-learning project by managing and solving application problems related to one's field of study;</li> <li>d. Being able to manage the internal dynamics of project development, demonstrating a professional approach to work;</li> <li>e. Take a leadership role in accompanying local actors in the Service-Learning project;</li> <li>f. Knowing how to record, systematise and evaluate project results;</li> <li>g. To be able to document the training undertaken by demonstrating how knowledge was applied to reality and what skills were deployed by the student.</li> </ul>
<p>18. Expected learning outcomes (according to the Dublin descriptors) <i>Autonomy of judgement</i></p> <hr/>	<p>Autonomy of judgement is continually exercised in the activities carried out by the students, through the protagonism that characterises this pedagogical approach. This autonomy of judgement will be particularly developed during planning, especially in the choice of service action to be carried out with and for the community, in the identification of the needs of the socio-cultural context and in the organisation of practical service-learning activities.</p> <p>Students are expected to develop at the end of the course:</p> <ul style="list-style-type: none"> <li>a. The ability to collect and critically interpret data related to the problem/need identified in the community;</li> <li>b. The ability to reflect on the chosen social issue, beyond the local context, integrating knowledge and managing complexity;</li> <li>c. The ability to develop personal choices and make decisions, including reflection on the ethical dimension of social responsibility, with an impact on the personal sphere and values.</li> </ul>
<p>19. Expected learning outcomes (according to the Dublin descriptors) <i>Communication skills</i></p> <hr/>	<p>Through the course, students are expected to increase their communication skills through the constant use of group work, but also through public speaking and the process of meeting and interacting with representatives of the community to interface with various stakeholders.</p> <p>Students are expected to develop at the end of the course:</p> <ul style="list-style-type: none"> <li>a. The ability to communicate with peers;</li> <li>b. The ability to communicate clearly and unambiguously the needs identified in relation to their project, the problems considered in the design and the proposed actions;</li> <li>c. The ability to communicate the meaning of the pedagogical proposal to specialists and non-specialists.</li> </ul>

<p>20. Expected learning outcomes (according to the Dublin descriptors) <u>Ability to learn</u></p>	<p>Learning to learn skills will be developed through an active and dynamic training course that will place the student at the centre of their own learning process. Through the logic of learning <i>by doing</i>, students will learn by doing concrete actions of service to the local community and through texts and materials of critical reflection on the chosen topic. It is expected that at the end of the course the students will develop:</p> <ol style="list-style-type: none"> <li>Self-directed or autonomous learning skills (learning to learn) enabling him/her to deepen the topics covered in Service-Learning projects;</li> <li>Ability to promote, in academic and professional contexts, cultural advancement based on knowledge of service-learning.</li> </ol>
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### 5.3.1. Annex 1: (e-)Service-Learning design sheet

Questions	Project Item
1. What is the identified need/problem for the (e-)Service-Learning project?	<b>Project Focus (diagnosis)</b>
2. What do you want to do for the community? What are the objectives?	<b>Project Objectives</b>
3. Why do you want to realize this project? And why precisely those objectives?	<b>Project Motivation</b>
4. What is the beneficiary target group of the project? Is there a specific group with whom we will interact or is our project aimed at the community as a whole? Try to identify the target group of the project as specifically as possible.	<b>Project Target group</b>
5. What actions or activities do we have to do to achieve the desired objectives? Define concretely what you will do step by step to achieve the project objectives	<b>Project service activities plan</b>
6. Who will implement the listed activities? Indicate who does what, define roles and responsibilities of each team member	<b>Project Roles</b>
7. With whom do we implement the project? Who do we involve? Will we work with any organization or association in the area?	<b>Project collaborations</b>
8. What curricular knowledge can we put into practice in the project? Describe the intersection between disciplines and degree courses: will it be an interdisciplinary project?	<b>Project curricular knowledge</b>
9. Which soft skills should we develop to take the project forward?  A. <b>social skills</b> (ability to work in a team, to communicate, to negotiate, to manage conflicts)	<b>Project Soft Skills</b>

<p>B. <b>personal skills</b> (ability to lead, self-evaluate, be flexible and adapt)</p> <p>C. <b>methodological skills</b> (ability to solve problems, to analyse information and data, to learn, to be creative and to innovate)</p> <p>D. <b>digital skills</b> (ability to digitally communicate, to create digital content, to solve digital problems, to process digital information and data)</p>	
<p>10. What Sustainable Development Goal do you think your project can contribute to? Why?</p> <p>GOAL 1: No Poverty – GOAL 2: Zero Hunger – GOAL 3: Good Health and Well-being – GOAL 4: Quality Education – GOAL 5: Gender Equality – GOAL 6: Clean Water and Sanitation – GOAL 7: Affordable and Clean Energy – GOAL 8: Decent Work and Economic Growth – GOAL 9: Industry, Innovation and Infrastructure – GOAL 10: Reduced Inequality – GOAL 11: Sustainable Cities and Communities – GOAL 12: Responsible Consumption and Production – GOAL 13: Climate Action – GOAL 14: Life Below Water – GOAL 15: Life on Land – GOAL 16: Peace and Justice Strong Institutions</p>	<b>Project SDGs</b>
<p>11. What resources are needed to implement the project? (materials, time, people, etc.)</p>	<b>Project Resources</b>
<p>12. What is the timeframe in which you intend to realise the project activities? Establish a timetable to achieve the desired objectives</p>	<b>Project Timeframe</b>
<p>13. Can we succeed? What obstacles might we encounter along the way? How do we expect them to be solved? Try to outline a plan B</p>	<b>Project Feasibility</b>
<p>14. How do we know that we have achieved the results we set ourselves? Are there indicators to look at in order to understand the impact of the project? Define some concrete elements that can help you identify the results you have achieved.</p>	<b>Project Results and indicators</b>



**Please summarize the aspects of this type of instructional design that are useful to you.**

*Write your reflection below.*

## 5.4. Course 4

**Name of the course:** Global Encounters in Local Settings (GELS)

**Study program:** open to students of all bachelor's, master's, and doctoral study programmes at the home university, as well as to students from universities abroad.

**ECTS Value:** 5 (1 credit – 30 hours of students' work)

**Course status:** Elective course for any university students

**Duration:** 1 semester

**Prerequisites:** none

**Total number of hours (time workload for students):** 150 hours during 14 weeks:



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the European Union

**Theoretical part:** 15 hours

- 5 hours - lectures
- 10 hours – flipped classroom learning (self study and discussion of SL Guidelines Framework<sup>1</sup>)

**SL project:** 135 hours

## Team building and project idea preparation: 40 hours

- 10 hours - creating a working team
- 10 hours - community needs analysis following SL Guidelines Framework
- 20 hours - group decision-making and and service project planning

## Project design and implementation: 60 hours

- 50 hours - service implementation following SL Guidelines Framework
- 10 hours - group reflections and further decision-making

## Reflection, evaluation and celebration: 35 hours

- 15 hours - self-reflection (writing diary)
- 15 hours - preparing group reports and project presentations
- 5 hours - project presentations, evaluation and celebration

**5.5. Course 5**

EDUCATIONAL MODULE: Family pedagogy	For: Pre -School and Early School Pedagogy
ECTS credits: 2	10 hours of lectures, 50 hours of group work and individual work in hybrid forms
Duration	1 semester

<sup>1</sup> Brozmanová Gregorová, A. et al. Service Learning: Innovative strategy of learning. Banská Bystrica: Belianum, 2014.



level	master's level
Entrance requirements	no entry requirements
Item status is	mandatory
method of conducting	e-Service-Learning

Outcomes	
1.	The student knows and understands the importance of the family environment, its specificity and the processes occurring in it
2.	The student knows and understands the role of the family in supporting children's development and modeling their attitudes
3.	The student is able to observe situations and events in the family environment and analyze them using pedagogical and psychological knowledge and is able to propose solutions to problems to support the child's development..
4.	The student is ready to recognize the family environment and its impact on the functioning of children or students, as well as to cooperate for the benefit of children or students from these environments
5.	The student understands what e-service-learning is. Able to implement service-learning projects. The student acquires social and personal competences, the ability to work in a group, and the ability to reflect.

Types of activities	<p><b>Hybrid E-Service Learning</b></p> <p>All presented learning outcomes are planned to be achieved through lectures and tutorials, and will be additionally deepened by the student's own work and work in groups and the implementation of service-learning projects. Work on service-learning projects will be carried out in a hybrid manner.</p> <p>Two types of activities will be undertaken as part of the classes:</p> <ol style="list-style-type: none"> <li>1. Activities related to the design of learning experiences (discovery in small groups, collaborative and individual learning</li> <li>2. Service-learning activities for parents (parent pedagogy), in which students work with community partners (working with families) to engage in community projects and activities.</li> </ol>
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Ways to verify learning outcomes: the reflection journal and project are assessed.

60% of the final grade – an individual eSL student's self-reflection journal (proof of commitment, critical reflection)

40% of the grade is an assessment of the groups' joint work in accordance with the eSL Framework (needs analysis, analysis of the project addressed to the family, level of project implementation, group reports, final presentation of the project along with its effects)

### 5.5.1. Instructional design

This is the example of an **extreme e-SL course**, where instructional and service component are implemented fully online.

The **theoretical part** of the course is strongly underpinned by a corpus of research investigated in the eSL4EU project. The **instruction is provided by the teacher to the students as online lectures via Microsoft Teams or Zoom**. Lecture-type lessons are complemented by **flipped classroom strategy** – students acquire further information on SL by studying **SL Guidelines Framework available in English in Moodle** during their individual learning space. The online group time is then focused on guiding students to deeper discussion and thinking on the studied SL materials, including explaining the main concepts and principles of SL.

The **service learning** process (135 hours in a semester) implies student participation in the e-SL projects - including community needs analysis, project idea design, service planning, service implementation, and finally presentation of final projects via Zoom to teachers, class and community partners. Students, according to their own interest, work on the mandatory e-SL project (e-SL activity) that helps the chosen community partners in finding solutions and satisfying their needs. The aim of these e-SL projects is to solve specific issues discussed in the course.

**Service learning project** begins with the introductory meeting of students, teachers and community partners via Zoom where learning objectives and community needs and resources are shared. It continues with weekly meetings between students and community partners. **The direct service to final beneficiaries is realized via Zoom.**

**Teamwork activities:** students work collaboratively online using various platforms (e.g. Zoom) or social media (e.g. Instagram, Messenger) based on their group preferences throughout the semester. After the initial team building activities the teams, in cooperation with the selected community, develop and implement a service

project, which should fulfill one of the community's needs. Then the teams work together writing an e-SL project application, final project group report, e-presentations in Microsoft Powerpoint or Prezi – uploaded in Moodle and for the public on the university website. Finally, they prepare a justified (critical) presentation of the preparation and progress of the project, which they present to the entire group of students in the given subject, teachers and, ideally, also to the external evaluators during the final project mini-conference. They evaluate all other projects based on the e-SL criteria.

### **Topics of the lectures and flipped classroom (15 hours):**

1. Introduction to S-L and e-S-L (principles of SL strategy, volunteering and SL, basic phases of SL process, models of SL), 2. preparation of e-SL project (preparation for the implementation of the e-SL strategy: school' needs analysis, students' needs analysis, community's needs analysis, setting the targets of e-SL project, selection of a model of e-SL; students' preparation for the implementation of the e-SL activities agreed: team formation, identification of a community' need, problem selection, detailed planning of an e-SL activity), 3. Project design and management of the e-S-L project/activity; 4. Writing individual journals on learning in the e-SL project; e-S-L Quality Standards; 5. Individual and group reflection in e-SL; 6. Evaluation of learning, results of the project and evaluation of e-S-L experiences; 7. Writing e-S-L Project Group Reports.; 8. Presentations and evaluation of e-S-L projects; celebration.

## **5.5.2. Learning outcomes**

After the successful completion of the course, the students should be able to:

- analyse the needs of the local community
- prepare a plan and write an application of the e-SL project,
- manage a e-SL project
- produce the e-SL group project documentation report
- write personal self-reflection diary
- justify and evaluate the e-SL projects based on the e-SL standards.

The students will also develop the following transversal competences and skills:

- inter-personal communication competence, including plurilingual competence;
- intercultural competence - increasing the level of knowledge and attitude of tolerance towards other cultures;
- critical and creative thinking and problem solving skills;
- attitude of willingness to take risks and look for challenges;
- ability to work in a team, leadership skills;
- time management;
- written and oral presentation skills;
- active citizenship attitude.

### 5.5.3. Assessment tools

#### 1. The individual assessment tool - student journal

Students should keep a personal reflective journal of their own learning throughout the whole semester. Each entry in the personal diary must focus on the personal learning process of the individual student, on his/her personal learning experiences, used knowledge and skills as well as newly acquired knowledge and skills, a list of used relevant literary sources, concrete contributions of the student to the group and community for which the e-SL project is designed and thereby point out the connections between his/her experiences with e-S-L and the study.

#### 2. Collaborative assessment tools

- 2.1 An e-SL group project proposal according the SL Guidelines Framework - in case of the need of financial support, also an application for a grant for the e-SL project. The assessment includes the evaluation of the project title, time-frame, project's goals (SMART criteria), selection of the partner, team members' skills, explanation of the community need, the structure of the project and the backup plan
- 2.2 Oral presentation of the project application to the teacher(s) (the assessment includes the evaluation of presentation skills of each student, time frames of the presentation, contact with the audience, etc.)
- 2.3 Final group project report. The assessment includes the evaluation of the work packages, project's activities, milestones, outputs, limits and weak points of the project.
- 2.4 Final in-class oral presentation of the e-SL project (the assessment includes the evaluation of presentation skills of each student, time frames, contact with audience, etc.).
- 2.5 Prezi or Powerpoint presentation of the e-SL project (the assessment includes the evaluation of the structure of presentation based on SL Guidelines Framework, use of keywords and the content in the Moodle/cloud-based presentation). All assessed documents are available in the student folder (Portfolio) in Moodle.

### 5.5.4. Final grade

- 60% of the final grade is based on individual student e-S-L self-reflection journal – evidence of individual engagement in the SL project, activity and critical reflection;
- 40% of the final grade is based on the assessment of groups' collaborative work according to SL Guidelines Framework (10% = needs analysis and the e-SL project design adequate to the chosen community need, 10% = the level of implementation of the service, 10% = detailed group reports and group reflection on the learning process, 10% = Prezi or PPT project presentation in front of other groups and evaluation of other groups' projects).



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## 6. Chapter: e-SL Documentation Tool

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Upon completion of this chapter you will be able to:

- design and plan your e-SL project / course based on what you learned in the previous modules
- document the process and ideas for developing your e-SL project / course

## 6.1. e-SL documentation tool

This unit allows you to **document your e-service-learning project ideas**, as well as learning needs and community needs you aim to satisfy in a structured way.

In order to document your project idea properly, you should include the following steps:

- Community needs and learning goals
- Project design
- Reflection, dissemination, evaluation and celebration activities
- Goals assessment

It is important that you take notes during your project planning. You'll make good use of them when you implement the project.

1. Start by submitting the **title of your project**
2. Identify **academic discipline(s)** of your students
3. Describe the **Focus area(s)** of your e-SL project. You might design your e-SL project to address one or more **Sustainable Development Goals (SDGs)**.
4. Identify **community needs for your e-SL project.**

Community need is defined as a difference between the desired state and the current state of the local community.

Identify the need(s) of the community that can be met through service-learning placement.

**Think big!** This will be a comprehensive list of needs you will be able to get back to every time you want to do an e-service-learning project. **What need(s) in the local community might be addressed by e-S-L activity?**

5. Add **service objectives** for your project work by pressing the button below. You should describe each objective in your own words.
6. Add **learning objectives** for your project work by pressing the button below. You should describe each objective in your own words.
7. Take some time to plan an e-Service Learning project the students could work on. Think about the following:
  - a community need you identified in the previous step
  - the field of education of students
  - community and university partners
  - student group
  - instructional design of the e-SL activities
  - service objectives
  - learning objectives





## Conclusion

This **Handbook** was created to support the open e-learning course within the project “*eSL4EU: e-Service Learning for more digital and inclusive EU Higher Education systems*”.

That e-learning course is composed of interactive, animated lessons where learning objectives are reinforced with H5P activities, storytelling for academic knowledge to be integrated into a real situation through online channels as well as scenarios: challenging situations where you can learn strategic principles by applying them to a concrete situation and observing the consequences of your decision.

The e-learning course also contains toolkit lessons, demonstration-practice, role plays, microlearning, games with a purpose to harness human gameplay for tackling community issues as well as videos on good practices of e-SL projects.

The course in English language (***e-Service-Learning for more digital and inclusive EU Higher Education systems***) is available on the following link: <https://mod.srce.hr/course/view.php?id=482>

The course in Croatian language (***E-društveno korisno učenje***) is available on the following link: <https://mod.srce.hr/course/view.php?id=487>

The course in Italian language (***e-Service-Learning per sistemi di istruzione superiore dell'UE più digitali e inclusivi***) is available on the following link: <https://mod.srce.hr/course/view.php?id=542>

The course in Slovak language is available on the following link: <https://lms-ext.umb.sk/course/view.php?id=158>

The course in Polish language (***e-SL dla budowania integracyjnych systemów szkolnictwa wyższego***) is available on the following link: <https://mod.srce.hr/course/view.php?id=538>

The course in Romanian language (***e-Service Learning***) is available on the following link: <https://traininghub.dcae.pub.ro/>

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