

GUIDE SUPPORTING THE IMPLEMENTATION OF COMMUNITIES OF INQUIRY

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Communities of Inquiry Guide

In this section of the Guides we are providing suggestions to HE staff and VET providers who – starting from the general EU Curriculum – would like to localize it according to their national/local contexts and – in doing so – they decide to focus on the creation of (f2f and/or online) learning communities that can survive and possibly enlarge outside the boundaries of the courses themselves.

Generally speaking, we conceive the learning design process as a two-stage process:

1. There is a **macro-design level**, where **designers** make high-level decisions about how the localized Curriculum will be structured (see Flexibility Tool), but also they will need to define what kind of resources (infrastructure, technology, etc.) and approaches will be implemented in the localized Curriculum (f2f or online or blended training), etc.
2. Then there is a **micro-design level**, where **teachers** will go further into the details of the design, by making more fine-grained decisions about how specific courses will be delivered.

In this section we will provide suggestions for designers about how to design and implement effective learning communities at the macro-design level (localized Curriculum).

1 GENERAL DESIGN PRINCIPLES AT MACRO LEVEL

As already mentioned above, in the process of localizing the Curriculum, designers need to make decisions about the overall learning approaches they want to implement in their context.

Basically, they will need to decide whether they want to offer **f2f or online**, or even blended training and what kind of **learning strategies and technologies** will be available for teachers to implement their courses.

A number of theories, well-established practices and patterns have been formalized in traditional and recent literature concerning the most suitable learning strategies for specific objectives or Learning Outcomes. So, any decision should be made starting from a deep analysis of the LOs.

Generally speaking, the more 'complex' the LOs are, the more active, situated and contextualized should be the activities performed by students to master them; besides, assessment methods, aimed at demonstrating the mastery of the same learning outcomes, should be active, situated and contextualized.

In the TEAMCARE Curriculum, Learning Outcomes are defined through 3 main dimensions: Knowledge, Skills and Attitudes.

Each dimension can characterize the whole LO in different percentages, so sometimes a

dimension can be prevalent or not present.

When the “Knowledge” (theoretical and factual) dimension is prevalent in a LO, the most proper learning strategy is usually a “traditional” lecture or the individual fruition of learning materials; especially in adult learning, when time for learning is particularly precious, the individual fruition of materials is often preferred to other strategies; as to the assessment methods, traditional methods such as written exams or assignments or oral exams are preferred since they are effective and time saving.

HINTS – Designing “traditional” lectures

If you opt for f2f lectures as one of the main strategies to be implemented in the courses, remind that this implies students will need to attend them, so when the target population is composed of adults who already work, opting for online lectures can be preferable for them.

*At the same time, **teachers** at your institution will be very likely already **familiar with delivering f2f lectures** and they will probably have already ready materials to use.*

*On the contrary, be aware that **online lectures**, that can be conducted for example in the form of webinars, **need to be re-designed**, as in online communication teachers will need to adopt mechanisms to keep the audience attention alive and engage them. So be sure teachers have a specific expertise on this or provide **ad hoc training for them**.*

*Moreover, if you want your teachers to deliver online lectures, make sure the **online institutional learning platform offers specific functionalities** to support **webinars** or **synchronous calls**.*

*You can also consider teachers to **record video-lectures** that can be then uploaded on the learning platform, thus allowing asynchronous fruition. This can be preferable for students, but even in this case, make sure teachers have an expertise on how to prepare and conduct video-lectures, otherwise provide specific training.*

*As a final remark, we should underline (f2f or online) lectures – although may be conducted in such a way to allow some interaction among students, for example by proposing discussion sessions – per se **do not guarantee the creation of a Community of Inquiry**, as this should be nurtured through more participative and engaging strategies (see below).*

HINTS – Designing learning materials (f2f vs. online)

If learning materials is used in f2f contexts, their fruition is usually somehow guided by teachers who give indications about how to use them.

*On the contrary, if teachers propose learning materials within online contexts, **these materials will need to be revised**, to make them more 'self-consistent' in such a way that students can use them alone. A good practice is also to prepare **meta-materials** to support students during online course fruition, such as for example 'Guides for courses', or similar.*

When "Skills" dimension is prevalent in a LO, active practice is fundamental and learners should be involved in activities which foster them to put in practice the addressed skills; learning strategies such as learning-by-doing, problem-based learning, simulations, drill & practice and so on, should be the adopted strategies; moreover, work based learning (WBL) is fundamental to develop practical skills (see section above). In a similar way, assessment methods should make the student put into practice the targeted skills to show their level of mastery according to the description of the related Learning Outcomes.

HINTS – Designing individual activities for skills development

Teachers at your institution very likely are familiar with the design and delivery of f2f activities oriented to the development of individual skills. These can include exercises, simulations, problem-base activities, drill & practice sessions.

*Be aware that there are many **digital environments (apps, software, simulators, serious games, etc.)** that can support these kinds of activities and can be proposed during f2f or online classes. Using these digital environments – among the others - brings the advantage of **keeping track of the students' achievements** (for example through logs or learning analytics), thus providing very useful data teachers can use with assessment purposes.*

*Assigning these activities as **homework** can be convenient for students, who can carry them out at their own pace and with no (or a few) constraints in terms of time, although they will be alone. Conversely, teachers can opt for '**flipped classroom**' approaches, where the fruition of lectures /materials is assigned as homework and the practical activities are instead proposed as classwork. In this case, your institution needs to provide the **necessary infrastructure (hardware and software) for all the students**.*

*When teachers opt for these kinds of digital environments, they should be sufficiently familiar with them but – even more importantly – they should be provided by the institution with some **technical support**, in such a way that any technical issue can be promptly solved when the environments are used by students.*

*Moreover, it is important not to underestimate the **level of familiarity** students will have in manipulating simulators, apps or*

*other kinds of hardware/software, so – especially if they are used in online courses – it is important to guarantee the proper (online) support and possibly to envisage some kind of **initial technical pre-training for students** before they are supposed to carry out any learning activity.*

*As a last remark, we should underline although these activities are more commonly offered as individual activities, students could benefit from **some kind of interaction with the teacher and with their peers**: offering **online spaces** to pose questions to teachers (for example in the form of 'online office hours'), or – even better – to discuss their doubts or results with others, can be beneficial. In these cases, providing functionalities, such as for example Forums on the institutional learning platform, could be a good solution to allow asynchronous communication and exchange, even if this alone won't be a sufficient condition to create an actual Community of Inquiry.*

When the “Attitudes” dimension is prevalent, learners should be involved in active and situated activities, possibly in groups, through collaborative or cooperative learning approaches, which are based on socio-constructivist theories of learning. This means the proposed activities should promote exchange and practice sharing among peers, possibly around concrete and ‘authentic’ tasks or problems, in such a way that they will collaboratively construct new meanings and shared new knowledge/solutions. In the same way, assessment should ‘measure’ the development of these attitudes and this should be done by assessing the contribution provided by each student to the collaborative learning process. This is because when collaborative learning approaches are used, assessing a product or a performance (for example an oral examination, or the result of a test) is not sufficient; instead monitoring the learning process during the activity will provide the necessary information to assess individual students, as well assess groups. When the attitude is articulated in many dimensions (and this is what often happens), different strategies can be integrated to address the different components.

HINTS – Designing collaborative learning activities

*Collaborative learning approaches valorize the learners' experience through **practice sharing and peer discussion**, so to support the co-construction of new knowledge. Strategies, such as discussions, peer review activities, case studies, role plays, critical incidents, problem-based learning activities, brainstorming, jigsaws, etc. should be used by teachers to promote practice sharing and the development of the community dimension.*

*The possibility to rely on collaborative learning approaches can be seriously impacted by the **size of classes**. As working groups need to be **constantly tutored, supported and monitored**, institutions will need either to have relatively small classes (about 20 people that can be followed by 1 teacher/tutor), or to count on more teachers/tutors.*

*In case you want to propose collaborative learning activities within your courses, **teachers should carefully design them (micro-design)**. This might imply **training teachers** in these aspects.*

*If you want to support collaboration and practice sharing within your courses, you could consider relying on **e-learning or blended learning approaches**. This will allow learners to take advantage of distance learning and – especially if courses are mainly carried out through asynchronous communication – this will allow them to learn at their own pace.*

*In any case, you should rely on an adequate **technological and /or organizational infrastructure**. For example, for f2f collaboration you should provide adequate rooms and – for online - you should check that the institutional learning platform supports some specific features, such as: Wikis, Forums, groups, Synchronous video-call with break out rooms, social networking functionalities, functionalities able to support self-regulated learning, self-monitoring, planning and self-evaluation; gamification functionalities, etc.*

The general EU Curriculum describes each LO in terms of the above mentioned 3 dimensions; while in some LOs, a prevalent dimension can be easily identified, other LOs are complex and articulated and do involve the 3 dimensions in the same way. In these cases, alternating and/or integrating different learning strategies could be a good solution and even opting for blended solutions (partially f2f and partially online) is an option, that of course you should consider by taking into account your local context and constraints.

2 DESIGN PRINCIPLES TO CREATE COMMUNITIES OF INQUIRY

According to the general EU Curriculum developed within this project, the professionals who will be trained would benefit from developing knowledge, skills and attitudes to become active members of learning communities, able to co-construct new knowledge and share meanings with others. This is why in the Curriculum there is a specific Learning Outcome (i.e. B6) specifically addressing these aspects. Such capacity will be beneficial for them not only during the courses, but – even more importantly – will allow them to continue the learning process through formal, non -formal and informal channels even outside the boundaries of the training, being able to be active members of interprofessional communities.

In order to effectively design the conditions within the courses to develop students' capacity to be active members of learning communities, in the project we have adopted the notion of "Communities of Inquiry - CoIs". According to the CoI framework, there are three dimensions (presences) that need to be fostered and encouraged, namely: the social, the cognitive and the teaching presences.

HINTS – Designing CoIs

*If you want **teachers** to effectively design learning activities that support the development of COIs, you will need to **train** them on these specific aspects.*

*Moreover, consider that **specific assessment procedures** will need to be put in place to monitor and evaluate students' achievements in this area, as it will be explained in the following sections.*

2.1 Promoting social presence in CoIs

Social presence according to the COI framework refers to the ability of students to develop a sense of belonging to the learning community and build meaningful interpersonal relationships. Creating a friendly climate, sense of trust and a secure and constructive environment for students, will allow them to feel comfortable and willing to share their practices and exchange opinions with peers. Without these conditions, it is unlikely that collaboration takes place and -ultimately – that the learning process is fruitful.

For this reason, designers should create within courses the necessary conditions for teachers to design and run specific actions specifically devoted to nurture such dimension.

HINTS- Designing the social presence for CoIs

*Designing the social presence requires specific expertise that teachers should possess or must be provided with through **ad hoc training**.*

*The first condition to create a friendly climate is that learners know each other from the very beginning of the course. For this reason, it is advisable to design some kind of **socialization/ice-breaking activities** to be run at the beginning of the course. This is true in f2f, as well as in online contexts.*

*The social presence can benefit also from the use of **gamification mechanisms**, such as for example the use of 'contextualized narratives', to create a 'storyline' that is unfolded as the course proceeds.*

***Adequate communication strategies** also need to be put in place by teachers/tutors, so to create a friendly climate and allow fruitful interactions among students.*

*Be aware that the contribution by students in terms of the social presence development will need to be **assessed by teachers**.*

2.2 Promoting cognitive presence in CoIs

Cognitive presence involves constructing meaning with others through reflection and critical discussion. In order to develop the cognitive presence, students must be triggered to contribute at individual level, by sharing their experiences and opinions, but also to build on the others' contribution, by seeking agreement, finding points of contacts or divergences and being able to synthesise and propose solutions. Moreover, the cognitive presence also implies meta-reflection abilities, i.e. the capacity to reflect on own or group learning process. Thus, self-regulated learning skills need to be supported, using 'scaffolding-and fading' approaches, where gradually students take the responsibility of their own or group learning process.

Even in this case, there are basic conditions that designers should guarantee, so that teachers can design and run specific actions to develop such dimension.

HINTS – Designing the cognitive presence for CoIs

*Designing the cognitive presence requires specific expertise that teachers should possess or must be provided with through **ad hoc training**.*

*Collaborative learning activities should be designed starting from the Learning Outcomes and contents to be addressed but need to be **structured according to specific patterns** that will foster collaboration and exchange. They should envisage tasks aimed to*

*the co-construction by students of **concrete artefacts** that will foster exchange and orient the discussion. Alternating different social structures (small groups, large groups, plenary sessions) is also desirable, to maximize exchange and sharing.*

*To allow fruitful collaboration, **adequate learning spaces** must be guaranteed, in terms of rooms in f2f contexts and in terms of technological functionalities in online ones. Along with **synchronous communication functionalities**, asynchronous ones must be available. Be aware that **asynchronous collaboration** usually implies longer activities, but usually brings deeper thinking and learning, is more inclusive and is usually preferred by students because they can participate at their own pace.*

*Moreover, be aware ad hoc **spaces and actions aimed to support meta-reflection** need to be made available. For example, in online contexts, it can be useful to create Forums specifically dedicated to discussing these issues. You can even consider the use of reflective diaries to support meta-reflection, but in this case, it will be an individual reflection.*

Other functionalities, like shared Calendars or similar, will also support (individual and group) planning.

*Be aware that the contribution by students in terms of cognitive presence development will need to be **assessed by teachers**.*

2.3 Promoting teaching presence in CoIs

Teaching presence refers to the ability in planning, facilitating, and directing the learning process. Although these aspects usually fall within teachers' responsibilities, in CoIs it is expected that these aspects gradually are shifted to participants' hands, who will take the responsibility of their own learning process.

Even in this case, there are basic conditions that designers should guarantee, so that teachers can design and run specific actions to develop such dimension.

HINTS – Designing the teaching presence for CoIs

*Designing the teaching presence requires specific expertise that teachers should possess or must be provided with through **ad hoc training**.*

*The best approach to support the development by students of the teaching capacity, is a '**scaffolding-and-fading approach**', which implies teachers/tutors initially guide the learning process, but then – as time goes by and the community is built – the responsibility of the learning process is gradually left to students. This will imply teachers will need to envisage some degree of freedom within the*

designed activities, for example by leaving groups free to choose among tasks, to agree on a time schedule or define organization of work, etc.

*Be aware that the contribution by students in terms of the teaching presence development will need to be **assessed by teachers**.*

3 STRATEGIC CURRICULUM DESIGN AND RESOURCE ALLOCATION FOLLOWING THE COI FRAMEWORK APPROACH

Starting from the recommendations provided in the above sections, in the following we provide a synoptic table that can be used by designers to take the necessary strategic decisions to structure courses aligned with the CoI framework, especially in terms of:

1. localizing LOs and modules
2. defining ECTS,
3. integrating WBL,
4. defining delivery mode and infrastructure requirements,
5. allocating resources (technology, people, and infrastructure),
6. defining high-level assessment strategies.

Following these recommendations should guarantee the resulting Localized Curriculum not only will meet institutional and regional needs but also support the development of effective learning communities.

By addressing these high-level elements, designers will lay the basis to create a flexible and adaptable curriculum, while empowering teachers to take micro-level pedagogical decisions that align with the CoI principles.

1. Localizing Learning Outcomes (LOs) and modules	
Objective:	Guide curriculum designers in tailoring the EU Curriculum LOs to institutional contexts.
Key considerations:	▪ Balance knowledge, skills, and attitudes in a way that promotes both individual learning and community-based knowledge construction. ▪ Weight the possibility to adopt an approach based on micro-credentials ▪ Choose to implement the 6 modules of TEAMCARE Curriculum or, if not possible, weight the chance to create new different modules assembling LOs in a new way
2. Defining ECTS	
Objective:	Structure the curriculum into modules that support the

	integration of social, cognitive, and teaching presences, while allocating ECTS credits appropriately.
Key considerations:	- Choose to implement the COMPREHENSIVE or the ESSENTIALS version of the Curriculum (see Curriculum Flexibility and ECTS Guide) and ensure ECTS allocation reflects not only the individual workload but also the time required for group work, discussions, and peer feedback, all essential for fostering social presence. - Consider modular flexibility that allows for adaptation in line with the evolving needs of the learning community.
3. Work-Based Learning Integration	
Objective:	Integrate WBL opportunities in a way that supports the cognitive and social presences by creating authentic learning environments and practical collaboration.
Key considerations:	- Design WBL activities that encourage students to co-construct knowledge through real-world problem-solving, in alignment with the CoI framework's cognitive presence. - Ensure that WBL tasks involve group work and reflective activities, reinforcing social presence and the collaborative learning process. - Design assessments for WBL that evaluate both individual contributions and group interactions, promoting community-based learning.
4. Defining delivery mode and infrastructure requirements	
Objective:	Select the most effective course delivery mode (face-to-face, online, or blended) that fosters social, cognitive, and teaching presences, supported by adequate infrastructure.
Key considerations:	- In online or blended formats, ensure the infrastructure supports both synchronous and asynchronous communication to foster social presence through meaningful interaction. - Choose delivery modes that encourage student autonomy while still providing structured guidance, supporting the gradual development of teaching presence. - Guarantee that the technology platforms enable collaboration, reflection, and the co-construction of knowledge, aligning with the cognitive presence in the CoI framework.
5. Resource allocation (technology, people, and infrastructure)	
Objective:	Ensure that the appropriate resources are allocated to support the development of an effective learning community.
Key considerations:	Allocate resources that promote the development of social presence, such as tools for collaboration (forums, breakout

	rooms, shared workspaces) and teacher facilitation. ▪ Invest in platforms and tools that support cognitive presence through interactive content, peer feedback mechanisms, and spaces for critical discussions. ▪ Ensure that teachers receive adequate training to foster both teaching and social presences, enabling them to guide and support the learning community effectively.
6. High-level assessment strategy	
Objective:	Design a broad assessment framework focusing on evaluating not only individual learning but also community-based achievements.
Key considerations:	▪ Assessments should evaluate the development of cognitive presence by measuring critical thinking, problem-solving, and the ability to integrate peer feedback. ▪ Incorporate assessments that measure social presence, such as participation in group discussions, peer review, and collaboration on shared tasks. ▪ Assess teaching presence by evaluating the extent to which students take responsibility for their own learning and contribute to guiding the learning community.