



The system of support for academic teachers in process of shaping soft skills of their students

Collaboration and collaborative learning with ICT

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<https://wspaerasmus.wixsite.com/supportsystem>



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Collaboration and collaborative learning with ICT

Module 3, Topic 1

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Introduction

- Collaboration is considered as a key competence of educational references for the 21st century, and collaborative learning is a way of building knowledge that is increasingly valued in Higher Education.
- In this session we will analyse the concept of collaboration and its relevance in the learning processes, identifying benefits and justifying reasons for its use.
- We will also analyse strategies and factors and that promote collaborative learning in Higher Education, particularly using ICT, with the support of illustrative examples in H.E.



Key questions:

What is collaboration?

Why is collaboration so important today?

What are the benefits of collaboration?

What is meant by collaborative learning?

What are its benefits in Higher Education? What contexts / conditions promote it?

What resources can be mobilized?

Why collaboration is so important

- When working together towards a common goal, people develop the ability to share information, to combine ideas, to share different notions and beliefs;
- People learn to respect the diversity of the group, understanding that information can be interpreted from different perspectives;
- People can find solutions and solve problems together, enriching the system.

Partnership for 21st Century Skills

- Twenty-first-century skills frameworks generally include competencies such as collaboration and teamwork. The *Partnership for 21st Century Skills (P21)* considers collaboration as a learning *skill* that comprises the abilities to (Lai *et al*, 2017):
- work effectively and respectfully with diverse teams;
- exercise flexibility;
- make necessary compromises to accomplish a common goal;
- assume shared responsibility for collaborative work;
- value the individual contributions made by each team member.

Concept of collaboration

- To **collaborate** (*co-labore*) means to work together.
- It implies the idea of shared goals, and the explicit intention to 'add value' – to create something new or different through a deliberate and structured collaborative process, as opposed to simply exchanging information or passing on instructions (Kaye, 1992, in Trenton)
- Collaboration is a “coordinated, synchronous activity that is the result of a continued attempt to construct and maintain a shared conception of a problem.” (Roschelle and Teasley, 1995, in Lai *et al*, 2017)

Collaborative learning

- Collaborative learning means that knowledge is not something that is '*delivered*' to students, but rather something that emerges from active dialogue among those who seek to understand and apply concepts and techniques.
- Student-student interaction in 'collaborative learning communities' may contribute to the achievement of educational goals by influencing educational motivation and aspirations through peer relationships. (Hiltz and Wellman, 1997, *in* Trentin 2010)

Collaborative learning

- A broad definition of collaborative learning can be the acquisition by individuals of knowledge, skills, or attitudes occurring as a result of group interaction, or, individual learning as a result of group process (Kaye, 1992, *in* Trenton).
- Why is it important for students to learn collaboratively?

Collaboration is a basis for the development of various competences and skills - communication, problem-solving, time management, resources allocation, ...

Collaborative learning

- Learning is active
- The teacher is usually more a facilitator than a “sage on the stage”
- Teaching and learning are shared experiences
- Students participate in small-group activities
- Students take responsibility for learning
- Students reflect on their own assumptions and thought processes
- Social and team skills are developed through the give-and-take of consensus- building

(Resta & Laferriere, 2007)

Collaborative activity (15' -20')

A) In small groups, explore the following link:

<https://teaching.cornell.edu/resource/examples-collaborative-learning-or-group-work-activities>

B) Share your experience on collaborative learning strategies with your colleagues.

From the examples given in the site, each group should list by order of relevance collaborative learning strategies that usually use in their teaching practices.

Barriers and facilitators

- **Organisational issues** - Higher education policies and organizational structures; resources available.
- **Community ethos** - group member feelings of connectedness and commonality of learning expectations and goals; classroom context, ethos or culture.
- **Group composition** - group size depends on the scope, duration, and complexity of the task. It need to be small enough to enable students to participate fully and to build group cohesion (pair group or small group work/ large group sharing).
- **Teacher-Student/Student-Student Online Interaction** - teacher planning, structure, and support the interaction.
- **Task Structuring** - learning environment, roles, and tasks (rules and specifications).
- **Scaffolding and Group Leadership** - teacher leadership role and support , feed-back.
- **Meaning-Making** - negotiation of a learning task or object of knowledge that allows for different views, ideas, and opinions to be formulated and contributes to group intersubjective understanding.
- **Time Requirements** - Teaching time required for facilitation, moderation, or scaffolding

Desirable conditions with ICT

- Teacher training
- Collaborative activities (in network) and creation of online working groups
- Adequacy of collaborative strategies for reaching the goals
- Friendly virtual environments
- Offering the means to configure and structure a appropriate learning space, so that students process actors (students, teachers, tutors, etc.) can interact in a network
- Accessibility to the network

Conclusions and Recommendations from the Report Skills for today - What We Know about Teaching and Assessing Collaboration (Lai, DiCerbo and Foltz, 2017)

CONCLUSION	IMPLICATION	TIPS FOR CLASSROOM PRACTICE
Collaboration skills are associated with more effective performance at school and on the job, and are highly valued by employers	Educators should develop collaboration skills in students as an end in themselves, not simply as a teaching method by which to learn other skills.	Establish learning objectives for collaboration. Plan for and use group activities as opportunities to reinforce and practice these skills.
The elements of collaboration shared across multiple frameworks includes: interpersonal communication, conflict resolution, and task management.	When teaching and assessing collaboration, educators should see the skill as multidimensional, looking at the elements both individually and together.	Show and explain what good collaboration looks like. Design activities that require learners to use the elements of collaboration in concert but provide feedback on each element individually.
It is possible to define less and more sophisticated levels of collaboration skill.	Educators should use these levels when assessing and teaching collaboration.	Help learners understand their own skill level in terms of observable behaviors.
There are different types of collaborative tasks that require greater or lesser degrees of collaboration skill.	Educators should select and design the appropriate task type for the situation and the learners.	Make sure group activities require students to work together and negotiate to forge consensus.
Assessment of collaboration requires collecting evidence of group interactions and team processes such as language used for communication, reactions to obstacles, planning documents, and approaches to decision-making.	Educators should capture group interactions and processes either through observation (by the instructor or peers) or by using technology that captures and automatically analyzes verbal communication and group decision-making.	Pick and choose from a diverse mix of evidence, including your own in-class observations, peer ratings, chat logs, discussion boards, email threads, documentation of task planning and organization of labour, and the group product during various stages of drafting, commenting, and revising.

Conclusions and Recommendations from the Report Skills for today What We Know about Teaching and Assessing Collaboration (Lai, DiCerbo and Foltz, 2017)

CONCLUSION	IMPLICATION	TIPS FOR CLASSROOM PRACTICE
Collaboration skill does not tend to develop in the absence of explicit instruction.	If students' collaborative skills are to improve, educators need to provide some combination of direct instruction in the skills of collaboration, opportunities to practice collaborating, and feedback.	Spend time in class directly teaching collaboration skills, including strategies for interacting productively with others, resolving conflicts, and managing task work.
Peers can reliably rate others' collaboration skill and these ratings can result in skill improvement.	Peer evaluation using defined rubrics or scales can be implemented as part of an effort to increase collaboration skills.	Create your own peer rating scale that aligns to the definition and levels of collaboration and train students to use the rating scale. Model how to provide constructive feedback on collaboration.
Aspects of forming groups (size of the group, group composition, and method of forming groups) may affect students' interactions and experiences. Although students may prefer self-selected groups, group composition is more difficult to control when teams are self-selected.	Generally, educators should use smaller, mixed-ability groups. Educators should consider using self-selected teams for learning activities but instructor-selected teams for assessment purposes.	Rotate groups so that students gain experience working with different types of individuals and teams.
Assigning specific roles (e.g., moderator, summarizer) may be one way of encouraging students to demonstrate desirable collaboration behaviors.	Educators should experiment with embedding specific functional roles into collaboration tasks, particularly roles that emphasize desirable collaboration behaviours.	Allow students to choose which of the defined roles in a task they would like to play but encourage them to practice playing different roles over time.

Concluding key points

- Good educational practice develops reciprocity, cooperation and collaboration among students,
- Good educational practice uses active learning strategies (socio-constructivist approaches),
- It is possible to use a variety of technologies to support cooperative /collaborative learning,
- Computer-mediated networks are important to support social interaction, cooperation, collaboration, learning and knowledge building,
- Current practices include technology-rich learning environments, network-enhanced learning environments, blended/hybrid learning environments (combining face-to-face and online interaction), and virtual learning environments.

(Resta & Laferriere, 2007)

Concluding keypoints

Benefits for the students:

- Higher level of motivation and engagement in the tasks, feeling of being protagonists of their learning, development of a wide range of competences (groupwork skills, communication skills, interpersonal dynamics, solving problems,...)

Conditions need to be met in order to yield the benefits (Trentin, 2010):

- Training of teachers in planning (network) collaborative activities and run online study groups;
- Adequacy of the collaborative strategy for attaining the objectives of the course;
- Small classes guaranteeing a teacher/tutor-learner ratio of 1:15 to 1:20;
- Availability of group-friendly virtual environments that provide the course manager with the means for setting up and structuring a suitable learning space, so that the actors in the process (students, teachers, tutors, etc.) can engage in networked interaction;
- Students' ready access to the networks

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Thank you for your attention!



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