

Ways to integrate collaboration skills into Higher Education

Collaboration skills are important for success in school and work. Research suggests that students with good collaboration skills enjoy better academic performance.^{1,2} Additionally, employers highly value these skills. As companies move to place greater emphasis on team-based work, individuals who excel at collaboration are likely to be more valued applicants and to receive higher performance ratings from colleagues and supervisors.^{3,4}

Collaboration refers to the process of working together to achieve shared goals through coordination and interdependence. It includes these subskills: interpersonal communication, task management, and conflict resolution.

The skill of collaboration should not be confused with cooperative or collaborative learning. Cooperative learning is a teaching method where group work is used to teach a variety of academic skills. Engaging in cooperative learning aimed at instruction of other skills on its own will not necessarily increase students' skill in collaboration. Collaboration skills need to be called out directly and explicitly taught.

Below are some sample learning tasks to give you inspiration for how students can develop and practice collaboration skills.

Subject	Learning activity	Skills involved
Accounting & Finance	A group of learners collaboratively generate a business risk analysis report.	Because learners have to produce something together, this activity addresses task management skills in addition to interpersonal communication. Learners need to take an active role in organizing and coordinating the work to successfully produce the report.
Economics	Learners roleplay a group of investors who are deciding on a business to invest in. Each learner is assigned a persona with different preferences and beliefs (i.e. risk tolerance), some of which are in direct conflict.	Because this roleplay involves inherent group conflict, it elicits conflict resolution skills, in addition to interpersonal communication and possibly task management skills. Learners need to negotiate and balance their individual preferences and beliefs in order to reach consensus.
Engineering	A group of learners collaboratively design and build a solar-powered model car	Because learners have to produce something together, this activity addresses task management skills in addition to interpersonal communication. The activity requires numerous steps, so learners need to divide the work responsibilities and coordinate their individual work in order to successfully design and build the car.
Language Teaching	Learner roleplays negotiating hiring terms (e.g. place of work, hours or salary) with the hiring committee for a hypothetical employer.	Because this roleplay involves inherent conflict between the learner's needs as an employee and the needs of a hypothetical employer, it elicits conflict resolution skills, in addition to interpersonal communication skills. Learners need to negotiate and find areas for compromise to reach a mutually beneficial consensus on hiring terms.
Management	Learners roleplay members of a hiring committee, with each learner assigned priorities for the new hire, some of which are in direct conflict.	Because this roleplay involves inherent group conflict, it elicits conflict resolution skills, in addition to interpersonal communication and possibly task management skills. Learners need to negotiate and balance their individual needs in order to reach consensus.
Marketing	Learners brainstorm ideas for a marketing campaign around a specific project.	Because this activity involves identifying ideas, but not selecting a best idea, it primarily elicits basic collaborative skills around interpersonal communication. These skills include listening without interrupting, waiting one's turn before speaking, and building on the ideas of others.
Maths	Learners develop a group presentation demonstrating the application of calculus concepts to a real-world scenario.	Because learners have to produce a presentation together, this activity addresses task management skills in addition to interpersonal communication. Learners will need to take an active role in assigning responsibilities and organizing and coordinating the work. Additionally, learners need to reach consensus regarding the presentation topic, as well as presentation style and what specific elements to include in the presentation.
Science	A group of learners collaboratively design an experiment to test whether vinegar in a glass cleaning product will remove the spots (mainly calcium carbonate) left on glasses by tap water.	Because learners have to develop something together, this activity addresses task management skills in addition to interpersonal communication. In order to successfully design an experiment, learners will need to take an active role in assigning responsibilities and organizing and coordinating the work. Additionally, learners need to reach consensus regarding what specific elements to include in the experiment.

These are the big ideas behind the learning activities overleaf. Use these to adapt the examples for your students, or as guidance to devise your own learning tasks.

Collaboration skills should be explicitly taught

Throughout education, learners have numerous opportunities to work with other learners. It is easy to assume that this type of group work is sufficient to support the development of collaboration skills, but this is not the case. To effectively support learning, instructors need to explicitly teach collaboration skills.	1	Teach learners what good collaboration looks like in terms of desirable behaviors and useful strategies. (See the big idea below for examples of specific collaboration behaviors).
	2	Provide learners with opportunities to practice their collaboration skills, making expectations clear.
	3	Give learners feedback on their collaboration skills, using evaluation from both peers and instructors.

Incorporate different aspects of collaboration

There are several different elements of collaboration, and learners should understand and practice these different elements. Three important elements to consider when developing collaboration activities are:	1	Interpersonal Communication – exchanging information, feelings, and meaning in positive and prosocial ways.
	2	Task Management – organizing the work of individuals and the team as a whole to support the achievement of group goals.
	3	Conflict Resolution – effectively reconciling different perspectives, values, opinions, or priorities within the group.

Ensure that the features and demands of collaborative tasks match instructional goals

How connected or interdependent the actions of the group members are within a collaborative activity will influence the difficulty of the task as well as which collaboration skills are elicited. Collaborative task demands – what students are asked to do – should be carefully designed to correspond to the current skill level of learners and to the target instructional objective. Three different types of tasks are as follows:	1	At the lowest level are activities that require participation in a task, but no coordination of actions. Examples include group sharing, brainstorming, or discussion activities where learners simply need to listen to others without interrupting, or take turns. These types of tasks require basic interpersonal communication skills.
	2	Next are activities that require coordination of individual actions, where learners need to reach consensus on what must be done and determine who will complete which tasks. These types of tasks require interpersonal communication and task management skills.
	3	Lastly there are activities that require resolution of major conflicts. In this case, there are inherent conflicting needs among group members that must be navigated for successful completion of the task. These types of tasks require interpersonal communication, task management, and conflict resolution skills.

Focus collaboration assessments on tasks that learners will experience in the real world

The types of collaboration activities learners will experience in the workplace will vary depending on the needs of particular fields or business segments. Whenever possible, collaboration activities should mimic the variety of those found in the workplace.	1	In addition to group projects, consider other types of collaborative activities including negotiations, selecting a job candidate, and project management.
	2	Partner with employers to identify what particular collaboration skills they require from employees and plan learning activities accordingly.
	3	Use rubrics and observation of the tasks to provide feedback.

1 Druskat, V. U., & Kayes, D. C. (2000). Learning versus performance in short-term project teams. *Small Group Research*, 31(3), 328-353.
 2 Prichard, J. S., Stratford, R. J., & Bizo, L. A. (2006). Team-skills training enhances collaborative learning. *Learning and Instruction*, 16(3), 256-265. Additionally, employers highly value these skills. As companies move to place greater emphasis on team-based work, individuals who excel at collaboration are likely to be more valued applicants and to receive higher performance ratings from colleagues and supervisors.
 3 McClough, A. C., & Rogelberg, S. G. (2003). Selection in teams: An exploration of the teamwork knowledge, skills, and ability test. *International Journal of Selection and Assessment*, 11(1), 56-66.
 4 Stevens, M. J., & Campion, M. A. (1994). The knowledge, skill, and ability requirements for teamwork: Implications for human resource management. *Journal of Management*, 20(2), 503-530.