

Training for Collaboration in the Workplace

Consider the challenge of producing a complex eLearning program about a new software application. It often requires the skills of several types of professionals including an instructional designer who prepares the program, a subject matter expert who developed the application (often several, each of whom worked on a different part of the application), support specialists who anticipate challenges that users might experience with the application, user experience designers who program complex interactions, programmers and production specialists who turn storyboards into working screens, and a learning consultant who keeps the entire team on track.

Complex projects like this require collaboration. Their success depends on the strength of the collaboration. And as workplaces increasingly integrate digital technology, automation, and Artificial Intelligence (AI), employers consider collaboration to be an essential competency, according to R.I Fanousse, D Nakandala, and Y. Lan in their 2021 article, Reducing uncertainties in innovation projects through intra-organisational collaboration: a systematic literature review and Monica Santana and Mirta Diaz-Fernandez in their 2023 article, Competencies for the artificial intelligence age: visualisation of the state of the art and future perspectives. That's also why Employment and Social Development Canada (ESDC) identified it as a Skill for Success.

To learn how employers teach collaboration skills in their workplaces and share teaching techniques learned from the literature, a team from the Institute for Performance and Learning, Concordia University, and George Brown College reviewed the research and professional literature. This report shares what the team learned. It first explains collaboration, followed by a high-level overview of what we found in the literature, then specific suggestions for teaching collaboration in the workplace. The report closes with key takeaways.

What Is Collaboration?

According to the Skills for Success website of Employment and Social Development Canada (ESDC), collaboration refers to:

“the ability to contribute and support others to achieve a common goal. For example, at work [people] use this skill to provide meaningful support to team members while completing a project.”

ESDC notes that employers seek collaboration skills because these skills promote the ability to respectfully work with people of diverse professions, backgrounds, and cultures towards a common goal. They add that collaboration skills also help people effectively work in teams by “understanding how to support and value others, manage difficult interactions and contribute to the team’s work” as well as “build and maintain positive relationships with others at work, in school, and in other parts of . . . life.”

One of the challenges in defining collaboration is that people use the term in different ways, ranging from merely sharing information with others to actively working together to complete a task or project beginning to end.

Not all types of work interactions require collaboration. According to Fanousse, Nakandala, and Lan, even some research on collaboration often merely focuses on information-sharing when true collaboration requires leadership, trust, and joint-decision-making.

Work-related interactions span a continuum, from coordination to cooperation to collaboration according to Fanousse, Nakandala, and Lan, as well as Britt Andreatta in a 2023 article Collaboration, coordination, cooperation: Thriving in the era of team-based work by differentiating teamwork types, and L. Michelle Bennett and Howard Gadlin in a 2012 article Collaboration and Team Science: From Theory to Practice. Each of the three types of interactions apply to particular types of tasks, require different types of expertise and communications to work successfully, and are focused on different types of results. Table 1 shows these three types of interactions.

Table 1.

Continuum of Work Interactions

	Coordination	Cooperation	Collaboration
Tasks	people have separate tasks	people have assigned portions of a larger task	people develop a shared vision, objectives and agenda for tasks
Expertise	people apply expertise to their task	people apply expertise to their portion	people contribute their expertise to a joint effort
Communication	people align separate tasks by exchanging information or resources	people depend on each other's portions for the task to be finished	people integrate their diverse perspectives to guide joint decision-making
Result	people deliver their task	people assemble portions at the end	the team co-creates a result

Collaboration is the most integrated form of working interaction. As such, it requires deeper levels of trust, knowledge-sharing, and team maturity (degree of trust and interdependent productivity).

As Ron Ashkenas notes in the 2015 article *There's a Difference Between Cooperation and Collaboration*, collaboration often fails because members of a team remain focused on their own skills, resources, priorities, and bosses. Members may share information but fail to raise or resolve conflicts in goals or interpretations, or establish a common

vision or priorities for decision-making (Ashkenas, 2015). Instead, they may work separately on their own priorities, resulting in individual deliverables that won't integrate at the end (Ashkenas, 2015). Fanousse, Nakandala, and Lan note this lack of commitment to teams as another reason for the failures of collaboration.

Suggestions for Teaching for Collaboration in the Workplace

This section offers specific suggestions for teaching collaboration in the workplace. It starts with a general comment about the literature we reviewed and another about the challenge of teaching collaboration skills in the workplace. Then it offers suggestions for three techniques for teaching coordination and cooperation, two general techniques for teaching collaboration to all workers, and eight techniques for teaching managers how to support collaboration in their workplaces. This section closes with a series of self-assessment questions from the Skills for Success website from Employment and Social Development Canada that people can use to assess their own collaboration skills.

A General Comment about the Literature

We limited the focus of our review to training for collaboration in the workplace. We reviewed 43 peer-reviewed articles (articles from journals that use a double-blind review process, in which neither the authors nor the reviewers know one another's identities, often report research studies, and are generally considered to have the strongest quality within the research community). We also reviewed 9 professional articles: ones from magazines and webzines whose content is determined by an editor-in-chief. We did not review blogs and other self-published materials. For each article, we captured the following information: class of article (peer reviewed or professional), type of research (research articles only), organization type, industry, definition of collaboration, type of intervention, success of the intervention, and other notes.

More fundamentally, we found the majority of the training in the workplace was aimed at managers and highly skilled workers, the top 10 to 20% of most organizations. In those rare instances when training was aimed at wider audiences, it was often vague in nature.

Because of the disappointment with the findings from the literature, we also conducted a convenience search of commercially available courses for the workplace, to see if perhaps those reflected different patterns. They did not.

A General Comment about the Challenge of Teaching Collaboration Skills in the Workplace

Although CareerOneStop, an online service of the US Department of Labor, does not explicitly identify collaboration, it does identify interpersonal skills, integrity, professionalism, dependability and reliability, and lifelong learning—all components of collaboration—as personal effectiveness competencies, which are essential not only for work, but also “all life roles—roles as a member of a family, a community, and a larger

society.” CareerOneStop also notes that “personal effectiveness competencies are generally learned in the home or community and reinforced and honed at school and in the workplace. They represent personal attributes that may be challenging to teach or assess.” This might also explain why training in collaboration is lacking in the workplace.

In fact, the literature on teaching collaboration in other educational sectors suggests that K-12 schools and universities specifically target collaboration skills in their programs. They do so in two ways. One is by building collaboration into academic courses. For example, as part of engineering courses taught at Carnegie-Mellon University, writing instructor C.P. Moreau who oversaw the writing component of these courses designed a series of instructional activities over the course of these degrees that focused on particular collaborative communication skills each year. The skills taught one year would build on those emphasized in the previous year. In addition, The second way that universities target collaboration skills is through courses on collaboration-related topics offered through their co-curricular programs: series of courses on work-related skills that are not covered in academic courses.

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General Techniques for Teaching Coordination and Cooperation

As noted earlier, coordination involves people working on separate tasks that have relationships to each other, and cooperation refers to situations in which people are assigned portions of a larger task, but generally work independently.

Coordination and cooperation are often confused for collaboration. However, certain techniques that promote effective coordination and cooperation can also promote effective collaboration. This section explores techniques for teaching knowledge-sharing and addressing the role of technology in coordination, cooperation, and collaboration.

Technique 1. Help workers identify the type of information people need to effectively coordinate, cooperate, and collaborate. Whenever workers depend on colleagues to complete their jobs, information plays a central role. At a minimum, Geary Rummler and Alan Brache note in their 2012 book *Improving performance: How to manage the white space on the organization chart*, workers need information on:

- The broader work process and their specific role in it
- The work products they prepare and on which colleagues depend
- The expectations colleagues have of the quality of work they will accept and the process for exchanging the in-process work

Within the contexts of projects, workers also need information on:

- The mission of the project
- The intended end result: in terms of what it will look like as well as when it needs to be completed, the level of acceptable quality, and the relative cost of the project
- The key members of the project and their roles on it

- Who has approval rights (the right to continue or stop a project) and who has reviewer rights (the right to comment on some or all aspects of the project)
- The status of the project: including progress towards the goal, tasks remaining and who has responsibility for them; challenges arising, how those challenges will be resolved, who is responsible for the resolution, and when the resolution is expected

In addition, workers need access to current, accurate technical content on which to base their work, a challenge that many Learning and Development professionals experience when they develop programs about products, programs, and policies in development.

As noted by Linnea Haag, Erik Sandberg, and Uni Sallnas in their 2022 case study of a collaborative relationship between a retailer and a logistics service provider, workers need this information to align expectations across different parties and increase the likelihood that expectations of all parties are addressed. Often, problems arise on projects because such expectations have not been made explicit, much less communicated.

To prepare workers, provide training on the type of material needed for particular types of work assignments and how to request that material when it is not provided.

Technique 2. Promote active knowledge-sharing efforts. The literature suggests a number of specific techniques for triggering knowledge-sharing among workers:

- Schedule interactions that promote knowledge sharing such as observation, field visits, interviews, and joint meetings, a suggestion by Haag, Sandberg, and Sallnas in their 2022 case study of a collaborative relationship between a retailer and a logistics service provider.
- Effectively used and tightly facilitated, regular meetings provide opportunities to share the status of projects, surface emerging challenges, and identify ways to address those. Training might therefore address skills for establishing agendas for, facilitating, and reporting on these meetings in addition to merely establishing the need for them.
- Encourage team members to share information before others expect to receive it or they are required to disclose it. As both Haag, Sandberg, and Sallnas, and Fanousse, Nakandala, and Lan observe, this pro-active approach to knowledge sharing pools knowledge from diverse perspectives so collaborators can generate new, useful insights that support the goal of the project.

When providing training on proactive knowledge sharing, also promote proactive receipt of knowledge, encouraging workers to process what their colleagues have shared and act on it.

Technique 3. Emphasize the appropriate role of technology in sharing knowledge.

Many organizations purchase applications such as Slack and Microsoft Teams to promote collaboration in the workplace.

On one hand, one can see why organizations might expect stronger collaborations after purchasing these applications. They typically provide capabilities for interacting synchronously (at the same time, such as voice and video calls) and asynchronously (through chats). They also provide repositories where work teams can share important documents, and many provide a means for two or more people to working on these documents at the same time.

However, technology tends to amplify existing behaviours rather than transform them. For example, if team members do not generally share information already, the availability of knowledge-sharing applications will not spark the instinct to start doing so.

That means applications might merely reinforce coordination or cooperation behaviours rather than collaboration.

To foster effective knowledge sharing, focus instead on developing skills emphasized in this report. When technology can help learners apply particular aspects of a skill, introduce the technology and explain its appropriate use in applying the skill at that time. For example, if teaching skills on facilitating team meetings, introduce virtual meeting tools and unique skills for facilitating virtual meetings at that time.

General Techniques for Teaching Collaboration

As noted earlier, collaboration refers to “the ability to contribute and support others to achieve a common goal,” such as a shared project. It represents a closer and more interdependent working relationship than involved in coordination or cooperation.

In addition to the techniques that promote effective coordination and cooperation, preparing workers for effective collaboration involves the application of additional techniques. This section explores teaching techniques that help workers become comfortable with the unstructured, ill-defined problems that characterize collaboration and address the role-based problems that arise during collaborations.

Technique 4. Use a specifically structured instructional strategy to help workers become comfortable working with the uncertain, ill-defined challenges that characterize collaborative work. One of the reasons that collaborative work requires the expertise of many professionals is that the projects address uncertain situations and ill-defined problems. According to Fanousse, Nakandala, and Lan, such uncertainty can create conflicting interpretations of the challenge facing the collaborators in addition to other problems.

Structured learning is a particular instructional strategy that Learning and Development professionals can employ to help workers become comfortable with such situations in the classroom and prepare them to transfer that comfort to the workplace.

In structured learning, teams of learners face complex problems they must address in a limited amount of time. According to the 2008 article Online collaborative learning for labor education by Marc Bélanger, the process of developing a common solution forces

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team members to progress from individual sharing, to linking and organizing individual ideas, and then developing a convergence of ideas that represented a new, shared way of looking at a topic. In their 2007 article Supporting collaborative learning and problem-solving in a constraint-based CSCL environment for UML class diagrams, Nilufar Baghaei, Antonija Mitrovic, and Warwick Irwin also found that prompting team members to take collaborative actions, and providing feedback on those actions resulted in more contributions to the group solution, a better understanding of effective collaboration, and more collaborative communications.

Synthesizing the recommendations from several studies such as the 2022 study by Laura Seppänen, Inka Koskela, Heli Heikkilä, Helena Leino-Kilpi, Paivi Rautava, Minna Stolt, Mervi Siekkinen, Elisa Valtanen, and Virpi Sulosaari, a 2018 study by Tom Jansen, a 2012 study by Rejean Laprise and Robert Thivierge as well as the work of Bélanger and Baghaei mentioned earlier, Table 2 presents the details of an instructional strategy that promotes comfort with ill-defined and uncertain problems.

Table 2.

A Specifically Structured Instructional Strategy to Help Workers Become Comfortable Working with the Uncertain, Ill-Defined Challenges

A.	Use a realistic problem complex enough to require multiple points of view, which may come from facilitators or the participants.
B.	Start with individual learning and feedback on a topic such as eLearning.
C.	Create teams with diverse experiences and characteristics.
D.	Place members in a shared space (physical or virtual) and prompt them to share their ideas and build a group solution.
E.	Prompt members to take collaborative actions, such as introductions, proposing ideas, explaining their agreement or disagreement with others' ideas, challenging others' ideas, and asking for explanations.
F.	Prompt members to resolve differences, such as comparing their ideas to others' ideas or to the group solution, then exploring why they are different.
G.	Require the development of a co-created consensus (rather than allowing people to propose solutions and ask for a vote).
H.	Prompt members to name the collaborative purpose of each interaction to keep them focused on collaboration.
I.	Require team to submit one co-created solution by a deadline.

Technique 5. Address role-based problems that arise in collaboration through speed dating. In addition to helping teams become comfortable with ill-defined problems and uncertain conditions, Laprise and Thivierge suggest another technique addresses the

challenges that workers have when collaborating on current projects: tensions with people in other roles.

Specifically, Laprise and Thivierge suggest creating a speed-dating like environment in which people with different but complementary jobs share their frustrations working with the other role, and develop ideas for collaborations to resolve those issues. Participants go through several such rounds.

Learning and Development professionals might facilitate a post-speed-dating discussion to surface the issues and solutions that arose, and perhaps even develop an action plan, so that learners can address the issues raised and apply the solutions proposed.

Techniques for Teaching Managers to Support Collaboration in Their Workplaces

In addition to general techniques for teaching coordination, cooperation, and collaboration, the literature suggests specific techniques for teaching managers to support collaboration in their workplaces. This section explores several of them, including promoting tactics for establishing collaborative teams and building team maturity, and preparing managers to coach workers on issues with collaborative behavior.

Technique 6. Promote tactics for establishing collaborative teams. A synthesis of findings reported in the Andreatta and Bennett and Gadlin articles suggests a six-step approach to creating a collaborative team. Table 3 summarizes these steps.

Table 3.

Six Steps for Establishing Collaborative Teams

<p>1. Choose appropriate type of interaction for the team: coordination, cooperation, or collaboration</p>	<p>Leaders can compare tasks to the continuum of working interactions (see Table 1). Based on the nature of the work assignment, managers should emphasize the relevant type of interaction: coordination, cooperation, or collaboration.</p> <p>As noted earlier, collaboration is the type of interaction best suited addressing complex, ill-defined tasks that require expertise across disciplines to address because the challenges benefit from approaches that integrate diverse perspectives into new insights, as noted by Bennett and Gadlin.</p>
<p>2. Choose appropriate people</p>	<p>Andreatta notes that not everyone is ready to collaborate. People who perform exceptionally as individuals often become leaders but might use the leadership role to fulfil their own visions instead of fostering co-creation within a team.</p> <p>So selection of a collaborative team involves careful selection of members: people who can build relationships and trust, manage</p>

	<p>conflict constructively, are comfortable co-creating and sharing credit with a team.</p> <p>Bennett and Gadlin advise managers to screen potential collaborators with interviews and reference checks to determine their capacity for committing to a shared goal, sharing resources, and accepting the vulnerability of interdependence to achieve success.</p>
<p>3. Help team members develop self-awareness of emotional habits and personality</p>	<p>Conflict is likely to arise in collaboration because of the pressure to co-create a common solution.</p> <p>But many people do not understand how they react to conflict, or to the strategies others use to do so.</p> <p>That’s where training and management can help.</p> <p>Training can help managers to identify different reactions to conflict and communication approaches that arise in those situations, how to respond to them on a personal level, and how they can support their teams in also doing so.</p> <p>Specific skills that such training and support should address according to Bennett and Gadlin include identifying communication—including those used for feedback and responding to conflict--so people can recognize particular reactions that might not be effective and learn to self-regulate their emotions, and adjust approaches away from unproductive efforts towards collegial disagreement.</p> <p>Bennett and Gadli also note the potential benefits of using tools like 360 feedback (in which everyone who works with a person provides their perspective) and the Thomas-Killman assessment, which helps a person identify their style for responding to conflict such as avoiding, accommodating, competing, compromising or collaborating) in these efforts.</p>
<p>4. Promote collegial disagreement to elicit issues</p>	<p>Not everyone is willing to disagree within a team. However, collaboration depends on gathering and processing diverse perspectives to generate new insights.</p> <p>Bennett and Gadlin recommend that managers prompt members to “rock the boat” with issues so they may be discussed and resolved early. Working through disagreements collegially strengthens trust in the team, neutralizes resentment, and inspires creative solutions.</p> <p>Furthermore building trust over time helps members express and hear disagreements without taking them personally.</p>

<p>5. Consider different career needs of collaborators</p>	<p>Bennett and Gadlin also advise that different members of a team have different career needs. One particular issue is whether people value individual or team recognition. Some people believe it's more important to stand out individually, particularly at the beginning of their careers. But providing workers with individual autonomy to act and prestige runs counter to collaboration, which requires the vulnerability of giving up power and individual control to co-create with others.</p> <p>Although managers might not be able to change the career needs of the members of their teams, they might be able to seek ways for collaborators to achieve their career needs without risking the overall collaboration.</p>
<p>6. Set expectations in a collaboration contract</p>	<p>Building on a point made in a technique mentioned earlier, setting expectations plays a key role in effective collaboration. One tool for doing so is a collaboration contract, which Bennett and Gadlin not only clarifies expectations in terms of roles and responsibilities as well as creates opportunities for members to build trust by continually meeting their agreed obligations.</p> <p>Elements for a sample collaboration contract for research teams are shared below (Ashkenas, 2015; Bennett & Gadlin, 2012):</p> <ul style="list-style-type: none"> • Describe common agenda, goals • Describe roles and responsibilities • Describe how each role fits into the bigger picture • Describe how credit and recognition will be allocated • Identify who speaks for the group • Describe ownership of intellectual property • Describe how junior careers will be assisted • Explain how unresolvable conflicts will be addressed (such as with a mediator or governance committee)

Technique 7. Build team maturity. Collaborative work relies on co-creation, trust, active knowledge-sharing, and processing that resolves differences in a constructive manner. As such, collaborative teams require more capabilities than groups who are only coordinating or cooperating.

In their 1999 article *Take teamwork to new heights*, Susan Wheelan and Christian Burchill identify the phases through which a team evolves. These include:

- Stage 1. Dependency, which includes a focus on leader instructions, prioritizes safety and inclusion, and is characterized by an avoidance of conflict and rarely discussing goals.

- Stage 2. Counter-dependency and fight, which is characterized by the team challenging the leader and each other, establishing common goals, and either working through conflict to establish trust or getting stuck or reverting to dependency (Stage 1).
- Stage 3. Trust and Structure, which is characterized by trust, commitment, cooperation, and communication. Team members rely on each other and work as a team, worrying less about status, power, and turf, negotiating roles and procedures, and solidifying relationships.
- Stage 4. Work, which is characterized by a focus on goal achievement, giving, getting, and using feedback, and encouraging high performance and quality work.

Managers should learn to gauge the maturity level of the teams they oversee. They can do so directly through discussions in meetings or less directly through surveys. In addition, managers can use these specific techniques to monitor the maturity of their teams:

- For surveys and meetings, develop questions based on the maturity model, each level characterized by common behaviours and complaints
- For surveys, ask team to answer items anonymously, such as rating from 1 to 5
- Also, for surveys share data with the team, identify maturity level, and ask team members to prioritize items
- In meetings, ask team for strategies to improve collaboration to the next level
- To make those changes, get team to agree roles and responsibilities to implement changes
- Negotiate with management for resources needed to support the implementation of proposed changes.

Continue with regular follow-ups and assessments to assess the success of efforts to strengthen the maturity of teams.

Technique 8. Prepare managers to coach for collaboration. As CareerOneStop noted, collaboration skills are generally learned in the home or community and reinforced and honed at school and in the workplace. To support workers in honing collaboration skills they were assumed to have learned much earlier in life, coaching might be most effective.

Coaching is a process of helping individual workers achieve valuable goals. As part of that process, the coach might provide feedback on behaviors by the coachee that are not effective, such as behaviors that hinder collaboration, and help coachees find ways to work around those behavior issues.

A 2015 study by researchers Rebecca Jones, Stephen Woods, and Yves Guillaume suggests that internal coaches—such as managers—can be more effective than external ones. By building coaching skills in general among managers and skills at recognizing and addressing issues with collaboration in particular, managers can provide individual

members of their team with the type of targeted guidance needed to become more effective collaborators.

Technique 9. Assess Collaboration. Employment and Social Development Canada has also developed an online assessment in which people can assess all their Skills for Success. The assessment of collaboration skills asks participants to rate themselves on these statements:

- I value the perspective those who aren't like me bring
- I avoid judging others based on their culture, background, ability, etc.
- I discuss differences between myself and others productively
- I resolve issues between myself and others
- I adapt to the different roles, needs, strengths, and weaknesses of others
- I support others to collaborate through coaching, mentoring, and motivating
- I make contributions to achieve a common goal
- I invite others to contribute in groups
- I reflect on the performance of my team/group
- I give constructive feedback and suggestions to my team

The responses to these questions help workers and the managers and Learning and Development professionals with whom they work to pinpoint the specific aspects of collaboration in which workers have strengths and ones in which the workers would benefit from further development.

To take this particular self-assessment, visit:

https://implus.ca/snapshot/start/?&frm_page=4

For the complete assessment, visit <https://implus.ca/snapshot/start/>.

The site also links to [tools to improve collaboration skills](#).

Key Takeaways

- Employment and Social Development Canada defines collaboration as the “ability to contribute and support others to achieve a common goal. For example, at work [people] use this skill to provide meaningful support to team members while completing a project.”
- Employers seek collaboration skills because these skills promote the ability to respectfully work with people of diverse professions, backgrounds, and cultures towards a common goal. Collaboration skills also help people effectively work in teams by “understanding how to support and value others, manage difficult interactions and contribute to the team’s work” as well as “build and maintain positive relationships with others at work, in school, and in other parts of . . . life.”

- Collaboration is the most advanced form of interaction in the workplace. It contrasts with coordination, the simplest type of interaction that involves people working on separate tasks that have relationships to each other and cooperation, the next most complex type of interaction that refers to situations in which people are assigned portions of a larger task, but generally work independently.
- Although 43 peer-reviewed and 9 professional articles address training for collaboration in the workplace, the team concluded that the body of literature did not offer strong guidance on this Skill for Success.
- Techniques for developing coordination and cooperation skills also benefit collaboration. These techniques include:
 - Helping workers identify the type of information people need to effectively coordinate, cooperate, and collaborate
 - Promoting active knowledge-sharing efforts
 - Emphasizing the appropriate role of technology in sharing knowledge.
- General techniques for teaching collaboration include:
 - Using a specifically structured instructional strategy to help workers become comfortable working with the uncertain, ill-defined challenges that characterize collaborative work
 - Addressing role-based problems that arise in collaboration through speed dating.
- Techniques for teaching managers to support collaboration in their workplaces include:
 - Promoting tactics for establishing collaborative teams
 - Building team maturity
 - Preparing managers to coach for collaboration
- Also take advantage of resources like self-assessments of collaboration skills from Employment and Social Development Canada.

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Credits

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ESDC



Sharing information,
getting along,
adjusting to ongoing
changes—what feels
like collaboration
might just lead to
chaos.