



CHAPTER 7 (BETA)

How to support students to cultivate psychological safety in their teams



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CHAPTER 7

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CONTRIBUTORS

- **Activity design + development:** Dr. Yousef Jalali, Beanta Alberink, Dr. Jessica Dehler Zufferey, Dr. Francesco Mondada, Dr. Siara Isaac, Dr. Natascia Petringa, Nicola Winzenried, and Dr. Roland Tormey
- **Writing this chapter:** Dr. Yousef Jalali, Beanta Alberink, Dr. Jessica Dehler Zufferey, and Dr. Francesco Mondada
- **Graphic design:** Laura Persat

ACTIVITY 7

How to support students to cultivate psychological safety in their teams



ACTIVITY DESCRIPTION

The importance of psychological safety in teams has been demonstrated in different settings. Team performance improves when team climate allows team members to be their authentic selves, to ask questions and raise concerns comfortably. However, it is less clear how educators can support students to cultivate skills for developing psychological safety in their teams. Informed by the literature, this activity will help students to enhance their communication skills, more specifically skills for inquiry (asking questions) and listening, as the underlying foundation to create a psychologically safe team climate. Students will be introduced to conceptual foundations of conversational skills and will be given experiential opportunities to apply them in several exercises. This chapter provides the outline of an activity designed to teach the learning outcomes listed below, material to assist facilitators in preparing, and the slides and handouts for teaching the activity.

LEARNING OUTCOMES

This 90-minute activity is designed for university-level engineering students. It targets the development of the following competencies for creating psychological safety in teams.

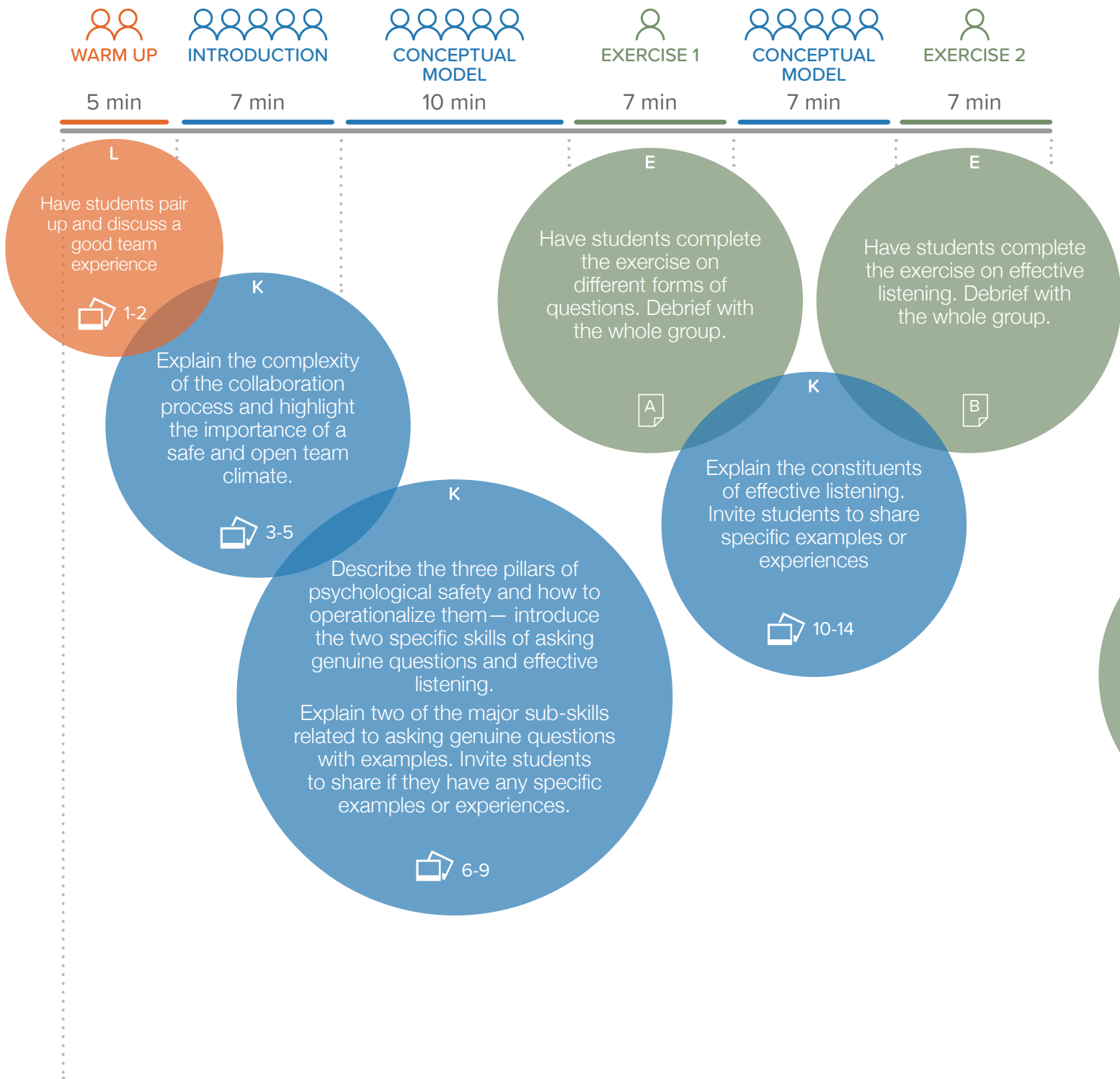
1. Inquiry and question-asking
2. Listening
3. Attitude of interest and curiosity

3T PLAY



ACTIVITY

How to support students to cultivate psychological safety in their teams



PREPARATION

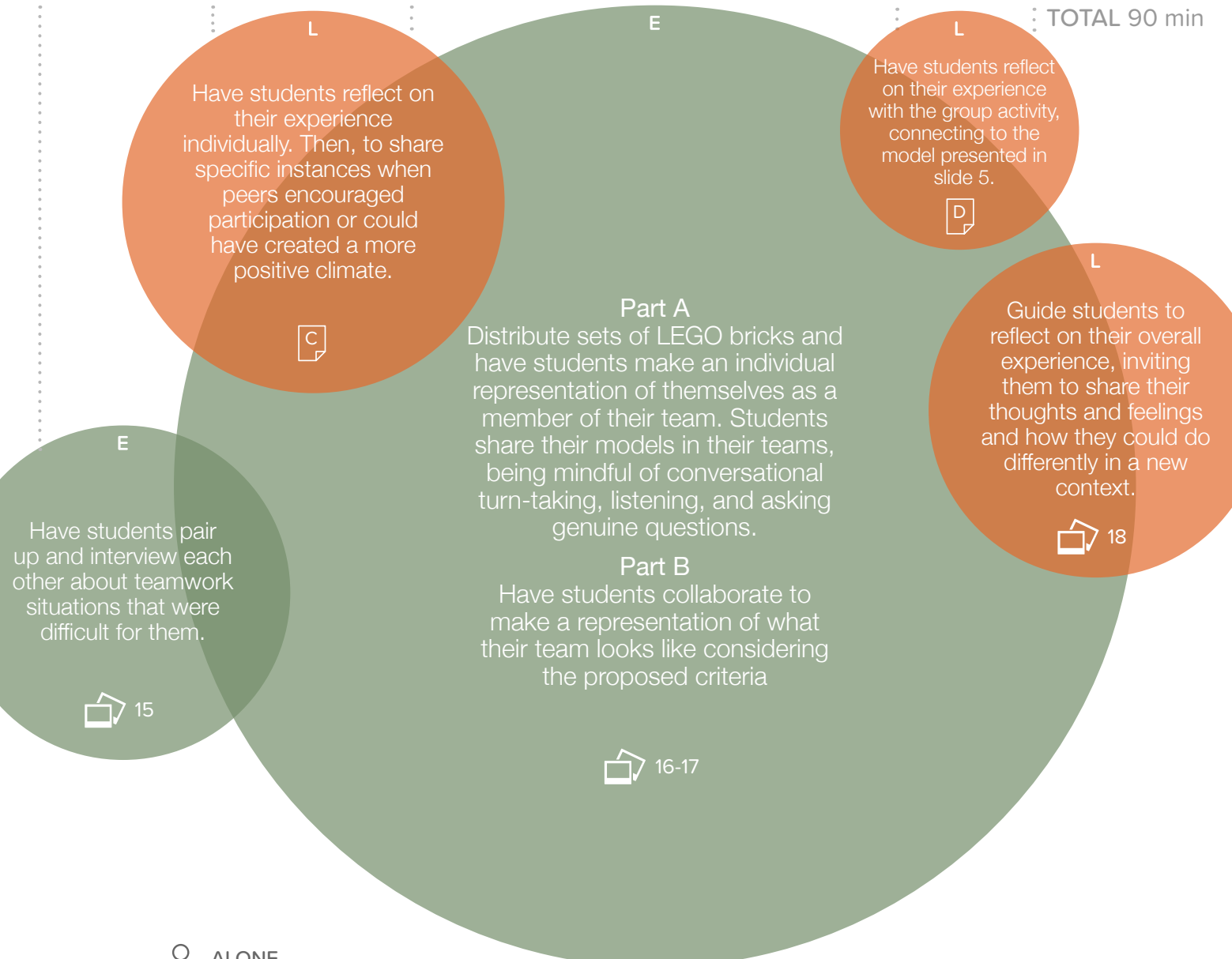
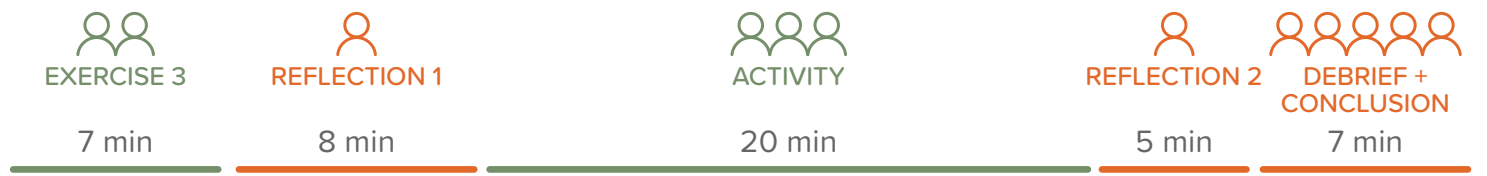
Set up the room for students to sit together with the members of their teams. While the activity assumes teams of 4 students at the formation stage, please adjust as needed for your context. Tangibles, LEGO bricks, are used to facilitate students' engagement and encourage authenticity and self-expression.

3T PLAY



ACTIVITY

How to support students to cultivate psychological safety in their teams



- ALONE
- PAIRS
- SMALL GROUP
- WHOLE GROUP
- SLIDES
- HANDOUT

- K** KNOWING
sharing knowledge and concepts that define the targeted skills
- E** EXPERIENCING
applying the concepts and tools in experiential learning
- L** LEARNING FROM EXPERIENCE
stepping back and reflecting about the activity enables students to transfer their skills



CONCEPTUAL AND PRACTICAL UNDERPINNINGS OF THE ACTIVITY

What skills will students develop in this activity?

Team psychological safety is a collective belief among team members that the team is safe for interpersonal risk-taking, where no one withholds their ideas, questions, and concerns, and there are more opportunities for giving and receiving feedback.^{1,2} While there is consensus about the importance of psychological safety and its impact on team performance, there has been less attention to ways by which it can be operationalized in practice.³ Prominent scholars, Amy Edmondson and William Kahn, uncovered essential components of a psychologically safe climate; for individuals to feel comfortable being themselves, to feel valued, and to believe that others have positive intentions, there should be a climate of trust and respect among people.^{2,4} But what is underneath such a climate? In other words, in the context of student teams, what competencies would students need to create a “safe and open team climate”?—we use the two terms, psychological safety and safe and open team climate, interchangeably in this chapter. Granting the importance of quality of relationship in promoting psychological safety⁵, microdynamics of interpersonal interactions, and more specifically, what we say and do during conversations would influence team climate. Building on the limited conceptual discussion of promoting psychological safety in teams^{2,6-8}, we used the term “skillful conversation” to highlight what members of a team should master to contribute to creating a safe and open team climate, and focusing on two essential interpersonal skills: inquiry and listening. While we present the two transversal skills separately in what follows, it is impossible to isolate one from another in conversations.

Inquiry

Asking for information is an effective way to encourage participation and empower others in any interpersonal setting. As Schein & Schein⁷ argue we may miss opportunities to build personal relationship, characterized by openness and trust, simply due to failure to ask humbly with the right attitude. Schein & Schein coined the term *Humble Inquiry* as “the fine art of drawing someone out, of asking questions to which you do not already know the answer, of building a relationship based on curiosity and interest in another person”.⁷ Similarly, Van Quaquebeke and Felps used the term *Respectful Inquiry* as a multidimensional construct of “asking questions in an open way and subsequently listening attentively, which, in their interplay, signal the degree to which a person invites an addressee to (continue to) share his/her thoughts on a subject during a conversational episode.”^{9, p.7} To develop inquiry skills, students need to be aware of different ways of asking questions and recognize the difference between *telling* and *inquiry*. For instance, notice how using a question like “Didn’t that make you angry?”, instead of “How did that make you feel?”, involves judgment and assumption that may close the door to a more genuine conversation. When one frames a question openly using the right tone, e.g., “Can you tell me more?” or “Can you tell me the whole story?”, they minimize controlling and influencing the direction of the conversation, show their vulnerability, and demonstrate the importance of learning, which is radically different compared with when they ask confrontive questions.⁷ In practice, students should see how framing open questions with an attitude of interest and curiosity, which demonstrates genuine interest in others and what they would say, helps people feel acknowledged and creates a safe climate to share and speak up.



Listening

Another essential component of genuine conversation is listening. To acknowledge and respect the presence of others, demonstrate care and concern for individuals and the relationship with them, and to understand them from their point of view effective listening is the key.^{10,11} Different terms, with some overlapping dimensions, have been used in the literature to refer to listening skills, among them, active listening, empathetic listening, and active empathetic listening. Importantly, understanding speakers at a more human level with an appreciation of their experience and feelings has been highlighted in the conceptualization and measurement of effective listening.^{12,13} In designing the activity, we borrowed from the listening framework demonstrated by DeVito¹⁰ that includes the five-step process of receiving, understanding, remembering, evaluating, and responding to verbal (and/or nonverbal) messages. Note that asking questions is critical in both understanding what the speaker means and responding. Skills for improving listening at each stage should be introduced, and students should be given opportunities to practice effective listening. In introducing listening skills, educators can use examples reflecting on how different things could go wrong in conversations in teams (or interpersonal) settings; here are a few examples: getting distracted by the environment; jumping over and interrupting the speaker—perhaps because the listener has something interesting to say, or they make an assumption about the direction of conversation, or even worse they think what is said is of little worth of their time—; and tendency to fix/solve the speaker’s problem without any efforts in seeing the problem from the speaker’s point of view and appreciation of their feelings beyond what has been said. At a more fundamental level, genuine two-way interaction is about treating one another as a whole human being beyond characteristics and attributes;¹⁴ that is why it is important to

encourage students to be mindful of their assumptions and how they may conceive others. This, in turn, helps them to be attentive in conversations and develop a sense of appreciation for the speaker’s effort and what is being said, whether they agree or not.

How to interest engineering students in learning these skills?

The ability to work effectively in teams is among widely recognized professional skills in engineering education,¹⁵⁻¹⁷ in part due to the increasing demands of accreditation bodies, which is directly connected to the collaborative nature of engineering professional practice.^{18,19} Working in teams requires specific competencies, some more context-driven for instance knowledge and skills pertaining task and its objectives, and other generic and transferrable to other settings, such as knowledge of teamwork skills or communication skills.²⁰ At a more macro-level, the primacy of psychological safety may need to be shared with students to highlight the relevance and meaningfulness of the activity. There is growing evidence documenting the influence of a safe and open team climate on team effectiveness and performance.²¹⁻²³ At a more micro-level, concerning specific skills, students should be given opportunities to see the relevance of inquiry and listening in promoting psychological safety. While implementing the activity outlined in this chapter in several settings at EPFL, we noticed how students naturally bring up components related to psychological safety when they are asked to reflect on their prior team experiences. The challenge is that many individuals take for granted that they possess skills in inquiry and effective listening. Building on students’ experiences with teamwork, educators can demonstrate examples and incorporate exercises on how skillful conversation can contribute to flourishing individual and team capacity. In doing so, it is essential to employ active learning strategies, e.g., think-pair-share, and whole class discussion.



How does this activity help your students to develop these skills?

Although opportunities for teamwork within engineering curricula have been growing through various experiential activities, such as design projects, less attention has been paid to the conceptual underpinnings of collaboration and the need for explicit instruction for developing teamwork competencies. As highlighted in several exemplar reports and publications, there is a need for systematic instruction of teamwork skills and paying attention to the process of collaboration, in addition to outcomes.^{18,24,25} Empirical studies have documented the benefits of explicit instruction of professional skills.²⁶ This activity has been designed to explicitly address communication competencies needed to build psychological safety, specifically at the earlier stages of the collaboration process, when trust and norms are developing within teams.²⁷ One of the things that could enhance the effectiveness of interventions centered around psychological safety is creating conditions for vulnerability and self-disclosure.⁵ Incorporating components that encourage students to present their authentic self, who they are, what their strengths or areas they would consider for improvement are in connection with a given task would be some strategies to promote authenticity and conversational disclosure. In terms of targeted transversal skills, we employed a trident framework²⁸ as a practical structure for teaching transversal skills—please see Chapters 1 + 2 of this book for an in-depth presentation of the framework.

The three aspects of the trident are:

Knowing: the factual knowledge and concepts that underpin a skill. For instance, different phases of effective listening.

Experiencing: focused, low-risk opportunities to practise the relevant skills while attending to the process, ideally with rapid feedback and a chance to iterate. For example, practicing asking open and genuine questions in an interview exercise.

Learning from experience: meta-cognitive and meta-emotional reflection about the experience of implementing conceptual knowledge and procedural skills. For example, reflecting on how and when students encouraged participation (or showed genuine interest).

An important element of this activity is the use of tangibles. Similar to the other activities in this handbook, we used tangibles, in this case LEGO bricks, to support social affordance and at least one of the three levels of the trident framework. Our approach to using tangibles in this particular activity is methodologically akin to the core process of LEGO Serious Play (LSP), which facilitates building and sharing stories about the intangible world.²⁹ Specifically, we asked student to build and share individual models using LEGO bricks, and then, build shared models and stories.²⁹ The process creates a safe environment³⁰ that facilitates equality of participation and voices.³¹⁻³³ It is both playful and meaningful. It can create a context involving participants in the state of “flow” where they can be fully engaged and absorbed in the activity while following a purpose. We posit that the overall process and its essential underlying components of tangible activity align with the overall goal of cultivating psychological safety. In adapting the activity, educators should be clear about the purpose and communicate that the focus is on meaning/stories (rather than models). It is also helpful to let students know that the use of LEGO bricks in visualizing and presenting ideas may remove barriers to self-expression and authentic voices,³¹ enhance safety in presenting challenging ideas,³² otherwise hard to express. The process as a whole aligns with conceptualizations of psychological safety, where individuals should be their authentic selves without fear of negative consequences.⁴

Let’s examine the details of the learning activity that addresses foundational skills in creating safe and open team climate, inquiry and effective listening. Notice how we



started the activity with a reflective exercise by inviting students to think and discuss about a good team experience [slide 1]. This brief discussion is not only an effective warm-up, including when students just got to know their team members, but also helps educators to naturally make the connection with different aspects of the collaboration process [slide 2]. In what follows, we present the details of each phase, knowing, experiencing, and learning from experience, based on the order implemented.

Knowing: Students are introduced to the complexity of the collaboration process, the nature of their team project, and the importance of a safe and open team climate [slides 2-4]. To underline how psychological safety can be operationalized in team settings, students are introduced to the three pillars of psychological safety, framing the work as learning problem, acknowledging fallibility, and modeling curiosity³⁴ that will be attainable through skillful conversation [slides 5-6]. Focusing on inquiry skills, different forms of questions can be demonstrated by using examples. We encourage educators to invite students to share their examples/experiences [slides 7-9].

Experiencing: To help students imagine a challenging situation and apply what they have learned about the difference between telling and inquiry and ways to frame and pose questions, they are asked to complete the exercise I [handout A]. Then, students are invited to share their insights with the whole group.

Knowing: Now focusing on effective listening, students are introduced to the major stages and elements of effective listening. Here again, students are invited to share if they have any specific examples or experiences [slides 10-14].

Experiencing: Students are asked to complete an exercise on effective listening in which they imagine how different responses are received by the speaker. They are encouraged to think about other potential responses and share their insights with the whole group [handout B].

Experiencing: To bring the two skill sets together and create a more holistic and realistic practice situation, students are asked to pair up in their groups and interview each other about situations in which working in teams was difficult for them [slide 15]. Note that the theme again is team experience; students often have something to say about it; it is meaningful and personal. During the implementation, we did not give much time for preparation as this triggers a more authentic reflection. It is worth noting that teachers can choose other subjects for the interview, for instance, related to the definition and requirements of the team project.

Learning from experience: Students are invited to reflect individually on the interview experience, what went well and what could be improved [handout C]. Then, they are invited to share specific instances in which their peers encouraged their participation or where they could do better to create a more positive climate.

Experiencing: Here is another opportunity for students to practice and be mindful of effective inquiry and listening in conversations. Students are first asked to build a model of themselves as a member of their groups using LEGO bricks and share the model with their team members [slide 16]. Then, they are asked to make a group representation of what their team looks like considering the proposed criteria [slide 17]. The activity enables students to visualize ideas, experiment through feedback and co-construction, and move towards building a shared vision about their team and task.³⁵ Meanwhile, it creates experiential opportunities for self-expression and practicing conversation skills.

Learning from experience: Students reflect on their experience with the group activity using LEGO bricks [handout D]. Then, students reflect on their overall experience by answering the prompts; to be an effective exercise, a follow-up discussion should take place either in small groups (e.g., think-pair-share) or the whole class [slide 18].



HANDOUT A Exercise I

A member of your team is not contributing as expected and is becoming less engaged in team meetings. You are not sure why. As a team member, you are worried about this.

What do you say in a one-on-one conversation?

What do you say in a team meeting?

On your own, think about different ways you could address the issue by:

I. Telling (without questions)

II. Asking a confrontive question

III. Asking a genuine question

Schein and Schein (2021)



HANDOUT B Exercise II

One of your classmates worked hard and prepared an outline for the term paper. Your professor asks them to change the topic and redo the entire outline. They are disappointed. In a meeting with several peers, they say, “I can’t believe I have to redo this. I really worked hard on looking at the literature and drafting the outline, and now I have to do it all over again.”

Based on what we have discussed on effective listening, how will each response be received by the person? Can you think of the main reasons?

A: “That’s not so bad; I had to entirely redo it. That’s normal.”

B: “It is just a simple rewrite. No worries. I’ve heard several students changed their entire reports last semester.”

C: “You have to rewrite the outline you’ve worked on for the past three weeks? You sound really frustrated.”

Other potential responses?



HANDOUT C Reflection I

How was it to do this exercise?

What have you done to create a genuine relationship with your peer?

When you reflect on what you have said and/or have done, what are the things that you did well?

When you reflect on what you have said and/or have done, what are the areas that you would like to work on?

What are the moments, interactions or comments that made you feel that you are valued and respected by your peer?



HANDOUT C Reflection I

What are the moments, interactions or comments that you think made your peer feel valued and respected?

Have a brief conversation with your peer and discuss how/when your peer showed genuine interest and encouraged your participation (at least one instance) and how/when they could better support your participation and foster a more positive climate (at least one instance).



HANDOUT D Reflection II

How was it to do this exercise? (How did it go?)

How did you show to the members of your team that you are open to questions, ideas, and feedback?

Can you remember what types of questions you asked?

How did you invite the others to share ideas and concerns?

How did you contribute to creating a safe environment?

How did you demonstrate effective and thoughtful listening?

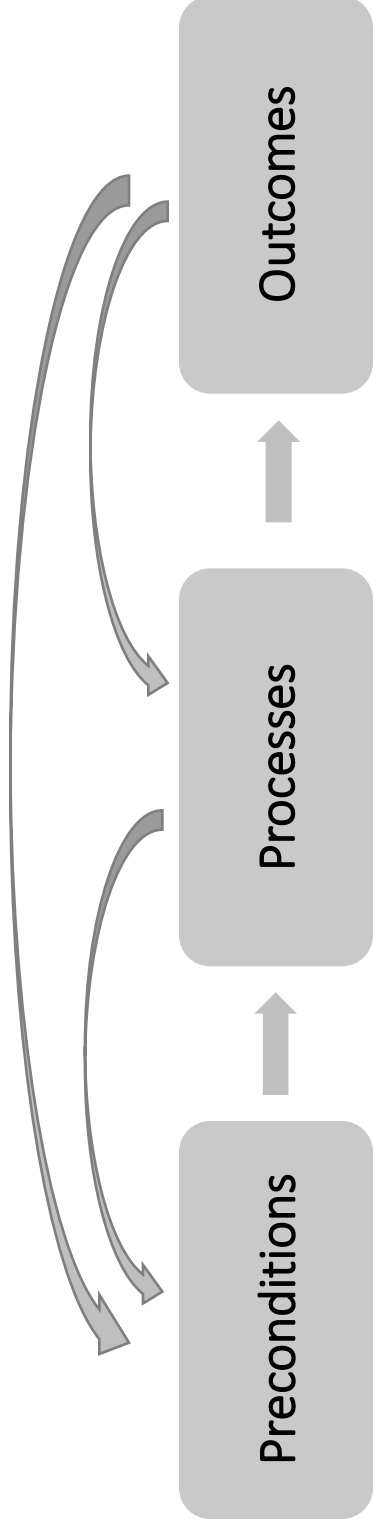


Teamwork and collaboration

Think about a **good team experience** you've had. What stands out about it? Pair up and discuss what you think made that experience good.

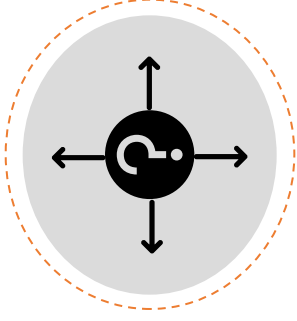


Teamwork and collaboration

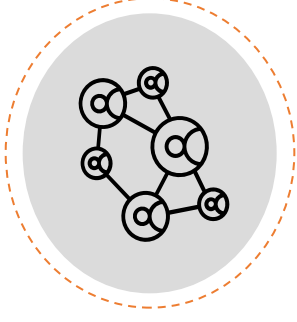


- Motivations and goals
 - Surface-level diversity
 - Deep-level diversity
 - Prior interactions
- Communication
 - Coordination
 - Decision making
 - Dealing with conflict
- Team performance
 - Satisfaction with membership

Your team project



Uncertainty



Interdependence

Potential for **unsatisfactory** performance

Or

Creativity and growth





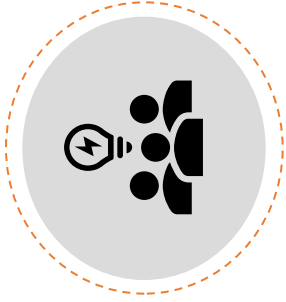
Increasing team effectiveness- Importance of a safe and open team climate

- Study of hundreds of Google's teams
- Intensive care teams in the United States and Canada
- Virtual project teams with different functions (e.g., engineering, IT, and management) in different industries
- ...

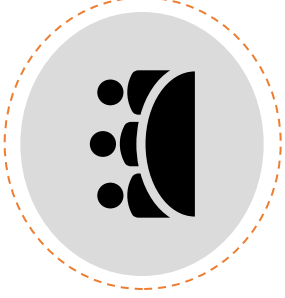
With a safe and open team climate, people offer ideas, raise concerns, or ask questions; there are more opportunities for giving and receiving feedback, and overall team performance will improve.



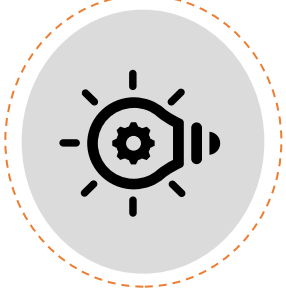
Creating safe and open team climate



Framing your work as
team learning



Acknowledging your
vulnerability

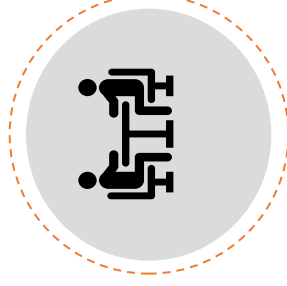


Modeling curiosity

Through Skillful Conversation



Asking genuine
questions



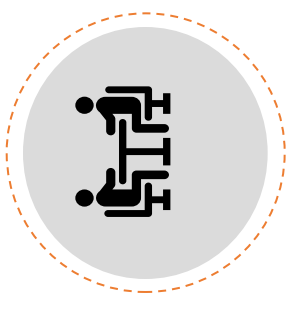
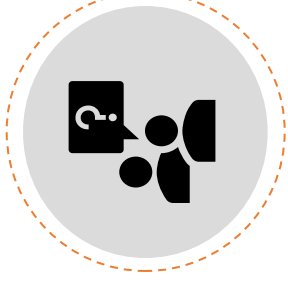
Effective listening

Skillful conversation-

A priority in creating safe and open team climate

Genuine two-way interactions

- Being speaker and listener
- Acknowledging the presence of the other person
- Demonstrating respect for the other person





Skillful conversation- Asking genuine questions

- Using open questions (how, what, where, when, why)
- Being conscious when you switch between telling and different forms of questions



Skillful conversation- Asking genuine questions

Using open questions

- “What other ideas could we generate?”
- “What might we be missing?”
- “Can you give me an example?”

“If I use this equation, do I get the right answer?”
vs.

“I’m looking to solve this problem, can you please help me with finding the proper equation?”

“Does this approach...”

vs.

“Which approach (do you think)...”

- Minimizing controlling, judging, or influencing
- Showing vulnerability
- Emphasizing learning



Skillful conversation- Asking genuine questions

Be conscious when you switch between telling and different forms of questions

“Here’s what we will do..”

“Can you tell me the whole story?”

“What did you do?”

“Can you give me an example?”

“Why didn’t you say something about it?”

“Why do you suppose that happened?”

“Were they acting that way because they were scared?”

- Telling

“How did that make you feel?”

- Diagnostic question

“Didn’t make you angry?”

- Confrontive question

“How were others reacting/feeling?”

- Systemic question

“Were the others in the room surprised?”

- Genuine inquiry



Skillful conversation- Effective listening

- Focus your attention
- Understand what speaker means
- Organize and remember
- Evaluate the message
- Respond

Maintain your role as a listener

Don't interrupt

Resist jumping in with evaluative, critical, or disparaging comment



Skillful conversation- Effective listening

- Focus your attention
- Understand what speaker means
- Organize and remember
- Evaluate the message
- Respond

See the speaker's message from speaker's point of view

Grasp both thought and emotions

Avoid assuming you understand what the speaker is going to say

Ask questions for clarification

Rephrase/paraphrase the speakers' ideas



Skillful conversation- Effective listening

- Focus your attention
- Understand what speaker means
- Organize and remember
- Evaluate the message
- Respond

Focus on central ideas

Rephrase and repeat names and key concepts



Skillful conversation- Effective listening

- Focus your attention
- Understand what speaker means
- Organize and remember
- Evaluate the message
- Respond

Resist evaluation until understanding the speaker's point of view



Skillful conversation- Effective listening

- Focus your attention
- Understand what speaker means
- Organize and remember
- Evaluate the message
- Respond

Support the speaker; nodding, “I see” ...

Resist solving the person’s problems

Avoid completing speaker’s thought or what you think speaker will say next



Exercise III- Interviewing

Subject: Situations that working in teams were difficult for you, your experience, how you dealt with it.

Take 1-2 minutes to write down some ideas and think about introduction, the opening questions, and potential responses to the subject. Your role is **to learn and build relationships**.

Be mindful of **effective listening** and **asking open questions**.

- a. Pair up and choose who will be the interviewer first
 - b. Interviewer introduces themselves, give an explanation of the purpose, and thank the interviewee.
 - c. Interviewer asks open questions and poses follow-up questions in response to what the interviewee says.
- Switch the roles



Tangible activity- Part A

1. Using LEGO, build a representation of yourself as a member of this team. Please consider the following aspects.
 - Areas of expertise and strengths
 - Skills that you think need improvement
 - What else can you offer to the group for creating a better team climate and improving team performance?
2. Share your LEGO model and engage in a brief discussion.



Tangible activity- Part B

Create a group representation of what your team looks like. Build one model everyone agrees on which represents your team. What makes your team unique. Please address the following aspects.

- Team goals
- Provisional roles
- Safe and open environment for team learning, i.e., activities by which you share, refine, or combine task-relevant knowledge through interaction with one another.
- Potential risks and uncertainties you envision.

Debriefing

How did you feel during the activity?

What would you do differently in a new context? How would you do that?

What would you like to share with your peers based on this short experience?





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3T PLAY



LIST OF MATERIALS

- Slides to facilitate this activity
- 1x Handout A per student
- 1x Handout B per student
- 1x Handout C per student
- 1x Handout D per student
- Mixed selection of classic LEGO bricks, special elements, and minifigure parts, and one baseplate for each team to build their group representation

MORE ABOUT 3T PLAY

To learn more about the 3T PLAY project and to access more materials, please visit go.epfl.ch/3TPLAY

We would love to hear your ideas about this activity! Please visit go.epfl.ch/3Tfeedback

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