

SPEAKING TO LEARN: THE ART OF HAVING MEANINGFUL DISCUSSIONS

Unlock your potential and engage in vibrant dialogues that inspire collaboration and creativity among your peers.



TABLE OF CONTENTS

01.

WHY EDUCATIONAL DIALOGUE?

This section delves into the significance of educational dialogue, emphasizing its value not only for your academic path but also as a valuable marketable skill.

02.

WHAT IS EDUCATIONAL DIALOGUE?

This section will define educational dialogue and outline each dialogic move.

03.

HOW TO USE THIS TOOLKIT

This section provides helpful tips to maximize your use of this toolkit during your sessions.

04.

ACTIVITIES

Activities Overview

- **Activity 1:** Setting the Ground Rules
- **Activity 2:** Analyzing Sample Conversations
- **Activity 3:** Utilizing Talk Stems
- **Activity 4:** Dialogue Observation and Tally
- **Activity 5:** Self-assessment

05.

APENDIX

Extra materials to help you

About the authors



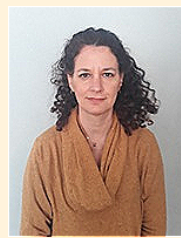
Principal Investigator

Dr. Marion Heron is Associate Professor of Educational Linguistics in the Surrey Institute of Education, University of Surrey. She researches in the areas of language and education, with a particular interest in classroom discourse, genre and doctoral education.



Research Fellow

Dr. Estefania Gamarra is a Postdoctoral Research Fellow at the University of Surrey. Her research interests include educational dialogue, discourse analysis, gender, and spatial cognition in STEM and higher education.



Co-investigator

Dr. Harriet Tenenbaum is Professor of Social and Developmental Psychology. Her research focuses on social justice in young people, everyday conversations, and teaching and learning across the lifespan.



Co-investigator

Dr. Lewis Baker is a Senior Lecturer in the Faculty of Engineering and Physical Sciences and a Chartered Science Teacher. His research interests include teaching pedagogy and science education, often within a foundation year context.

Our collaborators

Dr. Robert Hatch. Director of Teaching and Learning for Biochemistry at Queen Mary University London

Dr. Lisa McGrath. Associate Professor of Educational Linguistics in Sheffield Institute of Education, Sheffield Hallam University

Dr. Beth Melia-Leigh. Experienced practitioner, teacher educator and materials writer based at the University of Sheffield.

Dr. Tom Parkison. Reader and Programme Director of the MA and PGDip in Higher Education at the University of Kent

Dr. Hilary Wason. Head of Curriculum Development and Enhancement, Kingston University.



Acknowledgements: This project has been funded by the Nuffield Foundation, but the views expressed are those of the authors and not necessarily the Foundation. Visit www.nuffieldfoundation.org

We would also like to thank all participating Foundation Year students and teachers from Kingston University London, Queen Mary University London, Sheffield University, Sheffield Hallam University, The University of Kent, and The University of Surrey.

Disclaimer: The materials are currently being evaluated and are therefore a work in progress.

It's not enough to know the answer

You must be able to **express and defend your ideas clearly**, ensuring that others can understand your viewpoint. This skill is essential not only in university but also in your professional environment.

A discussion is not a fight

You need to be able to discuss ideas respectfully – to **disagree without arguing**, listen without judging, and explore different views without turning it into a fight.

WHY IS EDUCATIONAL DIALOGUE IMPORTANT

Develops confidence

If you've ever felt unsure about speaking up in class or felt like you don't belong in academic spaces, this training gives you **tools to speak with confidence**, collaborate effectively, and build your academic voice

Marketable skill

Employers frequently express the need for **graduates who can effectively communicate** their ideas and **collaborate within teams**.

NOTES FOR FACILITATORS

OBJECTIVES

1

This program will teach them a skill, so it is not about content learning. It is about the quality and depth of the discussion. Being right or correct is not as important as reaching an agreement together.



2

IMPORTANCE OF STUDENT BUY-IN

It is absolutely necessary that you "sell" this program to students to improve their participation and attainment. Many students have reported realising the benefits of the program after its completion and lamented that many of their classmates did not give it a chance.



3

HIGHLIGHT TRANSFERABILITY

This is a skill, so students will be able to use what they learn in this program in other classes or contexts. Encourage them to do so.



4

ILLUSTRATE WITH EXAMPLES

You can use the "pitch for students" ppt to extract examples, or use your own examples. Academic language is a second language and some of your students will be first generation HE students. Take nothing for granted.



5

BE CAREFUL WITH SCIENCE STUDENTS

It is our experience that science students tend to be the more reluctant to engage in dialogue activities because they don't see the benefit. Make sure to make it explicit what is in it for them.



LEARNING BY TALKING

Engaging in dialogue helps deepen understanding. It's not enough to give one-word answers; real learning happens when you explain, discuss, and question ideas out loud.

ASKING GOOD QUESTIONS

Thoughtful questions drive meaningful discussions. They clarify ideas, challenge assumptions, and open up new ways of thinking.

EXPLAIN YOUR THINKING

Sharing your reasoning makes your ideas clearer to others and helps you organise your thoughts. It encourages reflection and improves your ability to learn

WHAT IS EDUCATIONAL DIALOGUE?

BUILDING ON EACH OTHER'S IDEAS

Expanding on what others say leads to richer conversations. It shows active listening and helps develop collaborative problem-solving skills.

CHALLENGING

Respectfully questioning others tests arguments, reveals new perspectives, and shows disagreement can be constructive when approached respectfully.

CONNECTING WITH PREVIOUS KNOWLEDGE

Backing up your opinions with examples makes arguments stronger and discussions more persuasive. It also teaches critical thinking.

WHAT ARE THE TALK STEMS



Express or invite ideas

Share what you think and invite others to respond or add their thoughts.

E.g. "Here is what I think". "What do you think?"



Connect

Link what you're discussing to things you already know or to other topics you've learned about

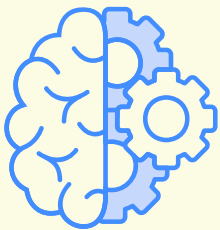
E.g. "I remember from the lecture...", "That reminds me I heard of...."



Build

Add to your own or someone else's ideas to keep ideas moving forward.

E.g. "I agree, and also....". "yes, so....",



Invite reasoning

Ask others to explain their ideas or reasons. This helps everyone think more deeply.

E.g. "Why do you think that?", "Can you explain that?", "How did you get that answer?"



Make reasoning explicit

Share why you think something, and explain your ideas so others understand your reasoning.

E.g. "I think it's B because....", "This is how you get this answer".



(Dis)Agreeing

Take a position, compare and challenge ideas, bring different perspectives together to build a stronger understanding.

E.g. "Are you sure? I think it is...", "I'm not sure I agree...", "yes, I agree because...".

NOTES FOR FACILITATORS

CONNECT

Guide them to the realisation that the characteristics of effective educational dialogue translate into the use of talk stems. However...

01.

IT'S NOT A CHECKLIST

Let them know that effective dialogue is not about ticking off stems like items on a checklist. Their use should always support moving the discussion forward or reaching an agreement.

02.

ACTIVE LISTENING

Emphasise that, to use talk stems effectively, students must actively listen and understand what their partner is saying. Asking for clarification is absolutely fine.

03.

DIFFERENT SUBJECTS USE DIFFERENT TALK STEMS

Our studies have shown that different subjects present different frequencies of the same talk stem (e.g. engineers tend to use “build” more, while psychologists tend to use “connect” more). Be aware of these differences, but try to encourage the use of all stems.

04.

INTERDISCIPLINARITY

Because different subjects have different “talk habits”, learning to use all the talk stems effectively can support interdisciplinary communication and collaboration.

05.

How to use this toolkit



1. Familiarise yourself with the ground rules, tips and talk stems for effective discussion
2. Check the extra materials. Have them with you during discussion and refer to them when you need to
3. Try to consciously use the talk stems. Make them yours, use your own words.
4. Reflect regularly. After each discussion, talk about what went well, what felt awkward, and what you'll try next time.
5. Keep practising! The more you use educational dialogue, the more comfortable you'll get at expressing ideas clearly and respectfully.



FOR FACILITATORS

HOW TO USE

01

AS A GUIDE

FEEL FREE TO MODIFY OR ADAPT THE ACTIVITIES OR SEQUENCE TO BETTER SUIT THE NEEDS OF YOUR STUDENTS.

02

IT'S ABOUT THE DIALOGUE

KEEP REMINDING THE STUDENTS THAT THE IMPORTANCE OF THE PROGRAM IS DEVELOPING AN ORAL SKILL. ALSO MENTION THAT THIS SKILL COULD TRANSLATE INTO BETTER WRITING SKILLS

03

ASSESSMENT

DISCUSS AND GIVE FEEDBACK ON SELF-ASSESSMENT. SOME STUDENTS TEND TO BE OVERLY CRITICAL OR OVERLY INDULGENT. YOU COULD ALSO COMBINE THEIR ASSESSMENT WITH YOUR OWN

04

EXTRA MATERIALS

MANY TEACHERS HAVE REPORTED THAT HAVING PRINTED VERSIONS OF THE TALK STEMS AND GROUND RULES DURING DISCUSSION HAS HELPED THEIR STUDENTS.

05

PHYSICALITY

HAVING STUDENTS SHARE ONE SHEET WITH THE QUESTIONS SEEMS TO ENCOURAGE COLLABORATION. ANOTHER SUCCESSFUL STRATEGY IS TO DIVIDE THE QUESTION SET, GIVING STUDENTS THE QUESTIONS AND ANSWERS AT DIFFERENT TIMES, AND ALLOWING TIME FOR DISCUSSION OF BOTH.

Some activity tips

Activity 1



- Try to elicit the ground rules from the students.
- Add more rules if necessary.
- Discuss which ones they think are most important.

Activity 2



- Students might judge both conversations as poor.
- Use this as an opportunity to highlight how dialogue can always be improved.

Activity 3



- Project the talk stems or remind students to keep them visible during the discussion.
- Make groups share one sheet.

Activity 4



- Being the tally person is challenging – they'll need to focus closely on their classmates' discussion.
- Allow time for students to compare and discuss their tallies afterward.

Activity 5



- Use this as a log of students' progress.
- Encourage students to refer back to earlier entries before and after the activity to reflect on improvement.

General tips



- After discussions, ask students what went well and what could they improve. Use the toolkit's checklists and logs to guide this.
- Remind students that it's okay to make mistakes or change their minds.

Activity 1: Setting the Stage with Ground Rules

Objective: Build a shared understanding of respectful and effective collaboration.

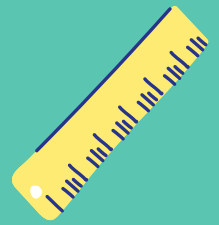
Instructions: Watch a short video of a group discussion



(2:22 onwards)

Reflect: What worked? What didn't?

GROUND RULES



Encourage everyone to contribute

- Both partners should speak.
- Take turns sharing ideas.
- Listen when your partner talks.
- Make sure no one is left out.

Treat all contributions with respect

- Don't interrupt or talk over others.
- Use polite language.
- Show interest in each idea.
- Value different perspectives.

Ask for reasons behind our thinking

- Explain why you believe something.
- Give examples or reasons.
- Ask your partner to explain their thinking.
- Be curious about each other's ideas.

Be prepared to accept challenges

- Stay open-minded if someone disagrees.
- Listen to challenges without getting defensive.
- Think about new points of view.
- Respond respectfully to questions.

Discuss alternatives before a decision is taken

- Talk through different options.
- Compare the pros and cons of each.
- Make sure both partners agree.
- Don't rush to a decision.
- Look for common ground
- Make a decision you both support

Activity 2: Analyzing Sample Conversation

Objective: Identify strong and weak moments in dialogue

Instructions: Read sample transcripts of student conversations and highlight places where:

- Ideas were challenged
- Evidence was used
- Reasoning was explained

Extract A

Craig: Hello, shall we go through the answers?
Gilly: Yeah I think it'll be a good idea to get started
Craig: Yeah, so what do we think for question one, let me get the answers up- er the questions up even
Gilly: Yep, let me find it. the first one I got C, that's what I got, but I don't know really
Craig: I did B or A
Gilly: It's cause I didn't recognise any of the words like
Craig: Yeah, the calyx words are the ones that are completely different
Gilly: Yeah so I just wasn't sure where to put them
Craig: Where it says major and minor calyx, do you think it's the- no it's can't be the, it's not the vein is it, the renal vein and the renal artery
Gilly: Yeah I don't think it is but I don't know
Craig: Well I just thought it would be A, B or C cause ureter would be at the end
Gilly: Yeah that's basically what I did as well, I put, I just thought maybe minor first and then maybe
Craig: [interrupting] actually yeah I think maybe you're right because ureter would be last, the pelvis would be second last probably, and then the duct and then the other two
Craig: Ok so we'll go for C, shall I put it in?

Extract B

Frances: Ok I'm ready to go whenever
Nadia: Alright cool so am I
Frances: Question one I put D
George: Yeah same
Nadia: Yeah I didn't put D but that sounds right so go ahead
Frances: I've put B because
Nadia: [interrupting] Oh B, sorry I thought you said D. Yeah I put B too
Frances: No, B
Mohammad: Same
Frances: Yeah it's B good job
Mohammad: Good job guys
Nadia: Good job team
Frances: Um question two I've put C
Nadia: Me too
Frances: Yeah, agree?
Nadia: Yeah if everyone's happy with it
George: Yeah I put C as well
Frances: It's not C
Mohammad: Unlucky, try D

Compare them. Which one do you think is better? Discuss how they could be improved.

Activity 2: Analyzing Sample Conversation (Answers)

Objective: Identify strong and weak moments in dialogue

Instructions: Read sample transcripts of student conversations and highlight places where:

- Ideas were challenged
- Evidence was used
- Reasoning was explained

Code

Inviting to build on ideas

Building on ideas

Challenging others

Invite reasoning

Make reasoning explicit

Coordination of ideas

Connect

Express or invite ideas

Extract A

Craig: Hello, shall we go through the answers?
Gilly: Yeah I think it'll be a good idea to get started
Craig: Yeah, so what do we think for question one, let me get the answers up- er the questions up even
Gilly: Yep, let me find it. the first one I got C, that's what I got, but I don't know really
Craig: I did B or A
Gilly: It's cause I didn't recognise any of the words like
Craig: Yeah, the calyx words are the ones that are completely different
Gilly: Yeah so I just wasn't sure where to put them
Craig: Where it says major and minor calyx, do you think it's the- no it's can't be the, it's not the vein is it, the renal vein and the renal artery
Gilly: Yeah I don't think it is but I don't know
Craig: Well I just thought it would be A, B or C cause ureter would be at the end
Gilly: Yeah that's basically what I did as well, I put, I just thought maybe minor first and then maybe
Craig: [interrupting] actually yeah I think maybe you're right because ureter would be last, the pelvis would be second last probably, and then the duct and then the other two
Craig: Ok so we'll go for C, shall I put it in?

Extract B

Frances: Ok I'm ready to go whenever
Nadia: Alright cool so am I
Frances: Question one I put D
George: Yeah same
Nadia: Yeah I didn't put D but that sounds right so go ahead
Frances: I've put B because
Nadia: [interrupting] Oh B, sorry I thought you said D. Yeah I put B too
Frances: No, B
Mohammad: Same
Frances: Yeah it's B good job
Mohammad: Good job guys
Nadia: Good job team
Frances: Um question two I've put C
Nadia: Me too
Frances: Yeah, agree?
Nadia: Yeah if everyone's happy with it
George: Yeah I put C as well
Frances: It's not C
Mohammad: Unlucky, try D

Compare them. Which one do you think is better? Discuss how they could be improved.

Activity 3: Using the talk stems

Objective: Practice speaking using structured academic phrases

Instructions:

- Read the list of talk stems.
- Choose at least 3 and use them in the discussion

Talk Stem	Example
Invite to build	"What do you think? Can you add to that?"
Build on ideas	"I agree, and also..." "I like that. And what if..."
Challenge	"Are you sure? Could it be something else?"
Invite reasoning	"Why do you think that?" "How did you do that?"
Make reasoning explicit	"I think it's B because..."
Connect	"I saw something similar on another study."
Express or invite ideas	"Here's what I think... What about you?"

Reflect: How did they help? What felt awkward?

Activity 4: Dialogue Observation and Tally

Objective: Notice how often different talk types are used

Intructions: Work in groups of 3. Two people talk, one observes. Use the tally to record the different talk stems you hear. Try to write examples to remember.

Talk stems	Examples	Tally
Invite to build		
Build on ideas		
Challenge		
Invite reasoning		
Make reasoning explicit		
Coordinate ideas		
Connect		
Express or invite ideas		

Activity 5: Self-Assessment

Objective: Reflect on how you worked together

Instructions: After each discussion, rate these items:
((1 = Not true / 2 = Partly true / 3 = Very true)

Adapted from Camtree: <https://camtree.org/resources>

Criteria	Rating (1 - 3)
We worked as a team.	
We stayed on task.	
We built on each other's ideas.	
We listened to each other.	
We gave reasons for our answers.	
We used examples or evidence.	
We challenged ideas respectfully	
We tried to find an agreement.	
We learned from our discussion.	
We enjoyed the conversation.	

Things I liked about our discussion:

Something I could improve next time

Activity 5: Self-Assessment

Objective: Reflect on how you worked together

Instructions: After each discussion, rate these items:
((1 = Not true / 2 = Partly true / 3 = Very true)

Adapted from Camtree: <https://camtree.org/resources>

Criteria	Rating (1 - 3)
We worked as a team.	
We stayed on task.	
We built on each other's ideas.	
We listened to each other.	
We gave reasons for our answers.	
We used examples or evidence.	
We challenged ideas respectfully	
We tried to find an agreement.	
We learned from our discussion.	
We enjoyed the conversation.	

Things I liked about our discussion:

Something I could improve next time

Activity 5: Self-Assessment

Objective: Reflect on how you worked together

Instructions: After each discussion, rate these items:
((1 = Not true / 2 = Partly true / 3 = Very true)

Adapted from Camtree: <https://camtree.org/resources>

Criteria	Rating (1 - 3)
We worked as a team.	
We stayed on task.	
We built on each other's ideas.	
We listened to each other.	
We gave reasons for our answers.	
We used examples or evidence.	
We challenged ideas respectfully	
We tried to find an agreement.	
We learned from our discussion.	
We enjoyed the conversation.	

Things I liked about our discussion:

Something I could improve next time

Activity 5: Self-Assessment

Objective: Reflect on how you worked together

Instructions: After each discussion, rate these items:
((1 = Not true / 2 = Partly true / 3 = Very true)

Adapted from Camtree: <https://camtree.org/resources>

Criteria	Rating (1 - 3)
We worked as a team.	
We stayed on task.	
We built on each other's ideas.	
We listened to each other.	
We gave reasons for our answers.	
We used examples or evidence.	
We challenged ideas respectfully	
We tried to find an agreement.	
We learned from our discussion.	
We enjoyed the conversation.	

Things I liked about our discussion:

Something I could improve next time

Activity 5: Self-Assessment

Objective: Reflect on how you worked together

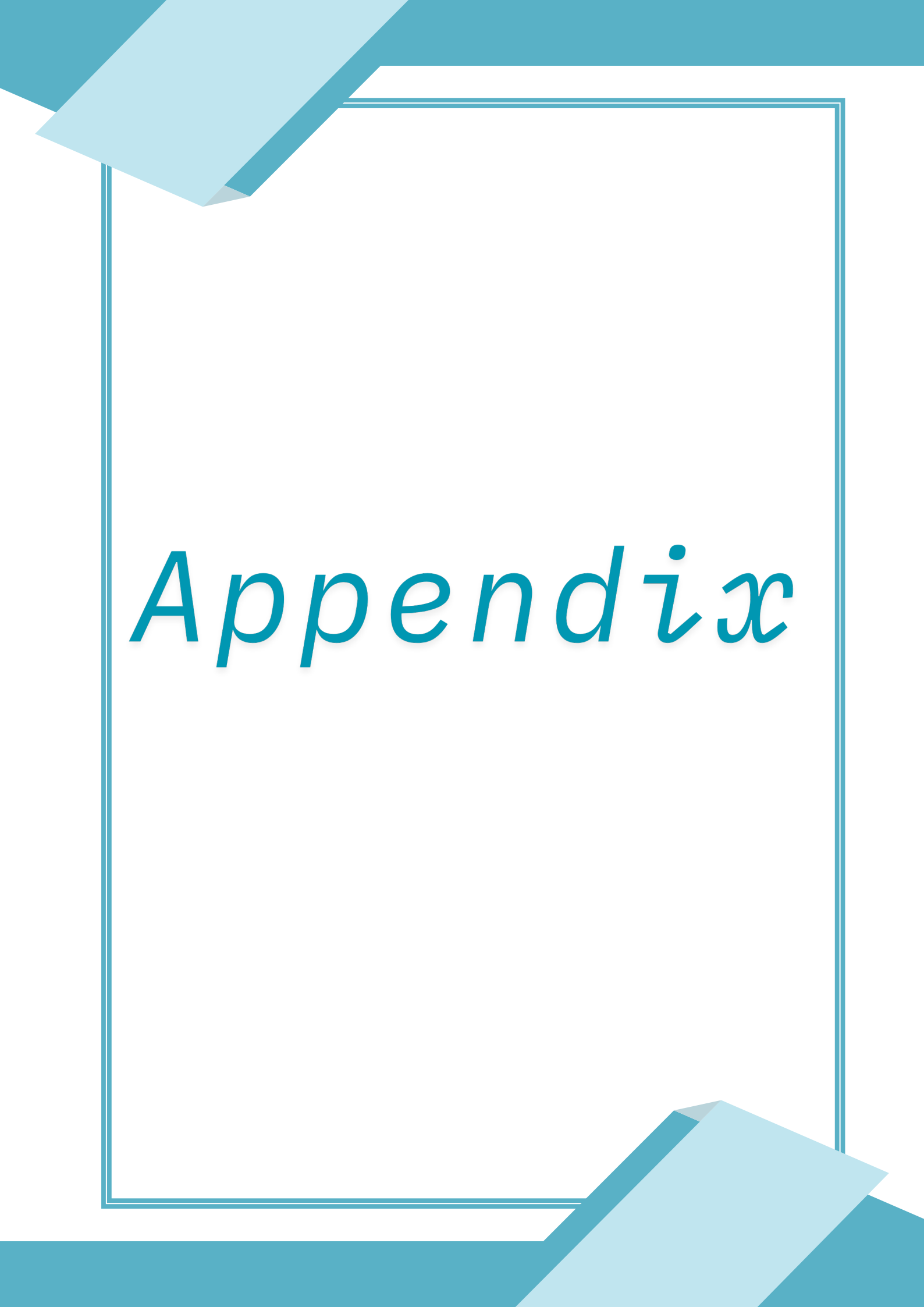
Instructions: After each discussion, rate these items:
((1 = Not true / 2 = Partly true / 3 = Very true)

Adapted from Camtree: <https://camtree.org/resources>

Criteria	Rating (1 - 3)
We worked as a team.	
We stayed on task.	
We built on each other's ideas.	
We listened to each other.	
We gave reasons for our answers.	
We used examples or evidence.	
We challenged ideas respectfully	
We tried to find an agreement.	
We learned from our discussion.	
We enjoyed the conversation.	

Things I liked about our discussion:

Something I could improve next time



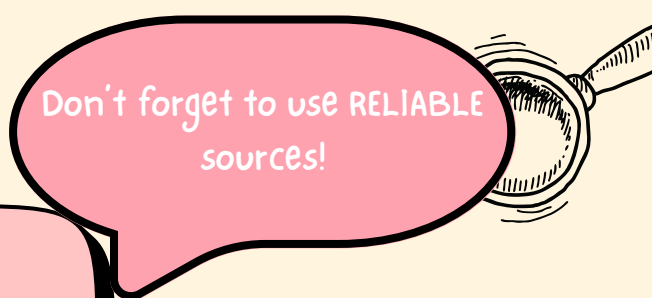
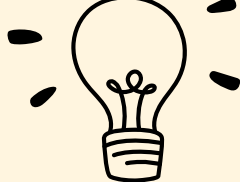
Appendix



GROUND RULES

1. Everyone contributes
2. All ideas are respected
3. Ask for and give reasons
4. Accept respectful challenges
5. Discuss alternatives before deciding
6. Aim to reach an agreement





Don't forget to use RELIABLE sources!

Connect

- We saw the other day in the lecture...
- I read this study about...
- I heard on the news...

Build

- So, that means...
- yes, and...
- expanding on what you said..
- I also heard that...

Reason

- I think X because....
- If X, then Y

talk stems

Express and Invite

- I think...
- How about....
- What do you think?
- Any ideas?

(dis)agree

- That could be, but how about...
- Yes, you're right.
- I don't think so because...
- I agree with that because...

Invite reason

- Why?
- How?
- Can you explain that?

