## Developing your research pitch: Instructor guide

### Workshop learning objectives

After completing this workshop, students should be able to…

* Create curiosity in their audience to develop interest in your research.
* Create and practice various pitches for professional and novice audiences.
* Capitalize on opportunities.
* Create a lasting connection with the audience.

### Preparing for the workshop [approximately 2 hours prep time]

* Designate a workshop facilitator. The facilitator will use this instructor guide, supplemental materials, and the provided slide deck to guide students through the workshop activities and encourage discussion.
* Reserve a space for the workshop and advertise to students. The workshop as outlined below can be completed in 1-1.5 hour(s) and can be adjusted by facilitators as needed.
  + No pre-work is required for this workshop. However, participants with some research experience may find it especially beneficial as it provides an opportunity to practice communicating their findings with different audiences (they should be familiar enough about their field of interest).
  + Students should bring their laptops. Alternatively, the facilitator can print paper copies of the student slide deck and resources document.
  + The facilitator should print out Handouts 1 and 2, one copy per student.
* Activity 4 is designed for more advanced students who have already worked on a project.
* The facilitator should review the following documents in advance of the workshop
  + The KEEN Framework: A Guide for Entrepreneurial Mindset (if the facilitator is not already familiar with this framework)
  + Instructor Slides, including notes section
  + Optional additional reading
    - Nezafati, M., Reizman, I., Marincel Payne, M., Liu, L. (2023, June), Development of entrepreneurial mindset-driven training materials for undergraduate researchers Paper presented at 2023 ASEE Annual Conference & Exposition, Baltimore , Maryland. <https://peer.asee.org/43158>
* Upload the student slide deck and student resources document to a location that will be accessible to students (MS Teams, Dropbox, etc), or print hard copies to share with students.
* The files are listed here:  
  Facilitator guide  
  Slides for Facilitator  
  Slides for students  
  Student handout 1 (must be printed)  
  Student handout 2 (must be printed)  
  Additional resources (References)

### Workshop structure:

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| Activity | Approximate recommended time |
| Introduction and welcome statement | 1-2 min |
| Play the video | 5 min |
| Activity 1: Clicker questions | 3-5 min |
| Why research pitch | 10 min |
| Activity 2: Brainstorming/Review Questions | 20 min |
| Activity 3: Networking pitch\* | 20 min |
| Activity 4: Technical / Interview Pitch\* | 30 min in person (or take home - follow-up recorded) |
| Total | 60 - 90 min |

\*Note: Based on the time and the goal of your workshop you can run both activities 3 and 4 or just run one of them.

### Day of the workshop:

* As students enter the classroom, ask them to download the student slide deck and additional resources document (or hand out these documents if they are in hard copy).
* Slide 1-2: Introduce yourself and tell your students what the learning objectives are.
* Slide 3: Start the workshop with the introductory video.
* Slides 4-6 (Activity 1): Students should answer questions about 3C or NABC. You should use a Clicker application for this activity.
* Slides 7-8: Go over the slides and explain why the research pitch is important. Then explain the structure of a research pitch.
* Slide 9 (Activity 2): In this activity students do the Brainstorming and Review questions. This activity consists of two parts.
  + Students should utilize their slides to jot down the answers to these questions.
  + During part one, display one question at a time on the screen. Allocate one minute for each question for students to individually formulate their responses. Remind students that during this brainstorming phase, they needn't concern themselves with grammar, spelling, or exhaustive coverage. They should utilize the minute to highlight the most crucial aspect of the question. After going through all the questions, proceed to part two.
  + In part two of this activity, pair up the students. Instruct them to exchange their answers and take turns reading them aloud to each other, aiming to refine their responses. Emphasize to the students that the answers for each question should not surpass 50 words. At this stage, students possess the fundamental material required to craft a pitch tailored to their audience and available resources.
* Transition to activities 3 and 4 : The answers to these questions are akin to Legos, allowing your students the freedom to build anything they desire. They can craft a concise pitch suitable for a networking event, or they can develop a technical presentation complete with slides and data. However, the key objective is to stimulate their audience's curiosity by crafting an engaging hook for their work.
* Slide 10-11 (Activity 3): In this activity students do a role play in a networking event or a conference without slides. The length of this pitch is 30-60 seconds. Go over the slide and elaborate the structure of an oral pitch and the technical points students should consider.
  + In this activity you want your students to communicate their research with their audience in around 150 words and less than 1 minute.
  + Please print out the scenario cards (double sided). On each card, an audience, an environment, or a scenario is described. On the back of the cards there is a rubric for peer evaluation and comments. Distribute the cards among your students.
  + Give them 10 minutes to write down a script to share the value of their research with that audience. They should use the answers in the previous activity. After 10 minutes, pair your students with each other. Tell them to present their work for each other as follows:
    - Student A will be the presenter and student B will be the audience indicated on the card of student A.
    - Student A shares their card with Student B. Student B reads the card briefly to understand their role and when they are ready. They then ask Student A to begin their pitch. Student A should adhere to their script but should not read directly from it. Student B should not time Student A for their initial pitch; instead, they should take notes and provide comments on the rubric for this activity. Subsequently, Student B should return the rubric to Student A, allowing them to apply the comments. After the completion of this activity, Students A and B should switch places. Now that the first round has ended, give students 5 minutes to apply the comments they received to their pitches.
  + When you are sure that students have applied the modifications to their pitches, pair them with a new partner. And ask them to do the following activities:
    - Student A will be the presenter and student B’ will be the audience indicated on student A’s card.
    - Student A shares their card with Student B’. Student B’ reads the card briefly to familiarize themselves with their role. Once ready, they ask Student A to begin their pitch. Student A should follow their revised script without reading directly from it. Student B’ should time Student A's pitch, take notes, provide feedback based on the rubric, and check if any previous feedback has been incorporated. Subsequently, Student B’ returns the rubric to Student A, enabling them to apply the feedback for their final pitch. After the completion of this activity, Students A and B’ should switch roles.
  + Now that the second round has ended, give students 5 minutes to apply the comments they received to their pitches. Based on the time of your workshop you can repeat round 2 one more time.
  + When you repeated the revision round enough, you can do one follow-up activity based on your decision:
    - Ask students to submit their final script texts for your review.
    - A blank slide is available in the students slides to type the final version.
    - Ask students to record their pitches and submit them to you.
* Slide 12 Activity 4 Present your research in 3 minutes using 1 slide: (the pitch length should be between 120 to 180 seconds). This form of presentation can occur in different scenarios, such as conferences where students have access to a laptop or a printed version of their work, or during a brief job interview. This activity is designed for students who already possess some data and wish to participate in an academic event. Ensure that students bring their data to the workshop if you plan to include this activity. The target audience for this presentation is usually a professional researcher or an expert in the field. You can incorporate this activity in lieu of, or after, activity 3, or as a subsequent task for students to undertake following the workshop. The recommended structure for the 1-slide pitch that you want your students to follow is as follows:

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| Section | Content |
| Need or opportunity (WHY) | What is the problem your research is trying to solve? |
| What is the significance of your work in the field? |
| Approach (HOW) | What is your solution? How is my research contributing to the solution? What are my expected results? What are your competitions or conventional methods? What is the advantage of your approach to them? |
| Benefit (WHAT) | Findings of research, including but not limited to: Numerical data, figures, facts, theoretical concepts, estimations, and calculations used to analyze the problem. Why our data is better than our competition. |
| Landing and call for action | What is the impact of your work? |
| What can your audience do now? |

Format should be like this:

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| Format | A single static PowerPoint slide. No slide transitions, animations, or 'movement' of any description. The slide is to be presented from the beginning of the presentation. No additional electronic media (e.g. sound and video files) should be used. No additional props (e.g. costumes, musical instruments, laboratory equipment) should be used. |
| The PowerPoint slide should be well-defined and enhance the presentation (no more than 1 slide) |
| The presenter conveys enthusiasm for their research and captures and maintains the audience’s attention. The length of presentation should not be more than 3 minutes. Avoid talking fast. |
| Concise persuasive narrative argument | The presentation should be delivered clearly, and the language be appropriate for a non-specialist audience |

Note: For this activity, you should ask your students to bring some of their data to your class.

How to do this activity:

The rubric for this activity is called handout 2. Instruct students to locate the instructions in their slide deck for this activity. Guide them to create a slide adhering to the content and format outlined in the two tables they have. They should also write down the script for the slide. This part should be completed individually.

Pair up the students and have them present their slides to each other. They should use the rubric to evaluate each other’s work. For the first round, ask them to focus on the content without timing the presentation. Encourage them to provide constructive feedback to each other. Allocate time for students to incorporate the feedback they received from their peers. Change the pairs and instruct students to present their slides to their new partners. Encourage them to provide feedback. Give them time to make improvements based on the feedback received.

When you repeated the revision round enough, you can do one follow-up activity based on your decision:

Ask students to submit their final script texts for your review.

Ask students to record their pitches and submit them to you.