BRINGING THE WORLD IN: STUDENT PANEL DISCUSSION

General Guide	1
Student Panel Discussion Example: Biophilia in Phoenix	5
Student Panel Discussion Example Assignment: Biophilia in Phoenix	8

GENERAL GUIDE

Bringing the
World InVisitingSimulatingEngagingthe Worldthe Worldthe Worldthe World

Students complete a team project, present their findings through a panel, and facilitate a Q&A discussion to creatively involve and engage their peers. Students develop public speaking and science communication skills necessary for engaging people around sustainability issues, and gain experience planning and facilitating an event. The experience also provides a great opportunity for students to develop confidence through mastery of sustainability content and research process.

"Panel discussions are particularly useful as a way to include the entire class when students give class presentations or reports ... The keyis to choose topics carefully and to give students sufficient direction to ensure that they are well prepared for their presentations. -Faust & Paulson (1998)

Course	Level: 100; can accommodate group size: 10-100+
Enjoyment	Students get to research and present a relevant topic, and other peers get to ask them questions. Students get to know each other and it is an interesting way to involve the whole class in presentations.
Learning	This is a good exercise both for testing knowledge and critical thinking and question-asking skills. It will also help train students on their research skills. Provides ample opportunities for peer learning.
Adjustments	Professor may need to act as a moderator or work with students to hone questions, answers, and public speaking skills, and schedule dates for dry runs.

Benefits	Gets students excited about material and is an alternative to lectures and
	traditional assessments (e.g., test, essay).

LEARNING OBJECTIVES

- Collaborate with peers to plan and facilitate an event that presents projects in a way that engages peers and others in the audience using professional tools. [INTERPERSONAL COMPETENCIES]
- Demonstrate public speaking and science communication skills. [INTERPERSONAL COMPETENCIES]
- Account for and engage plural perspectives in presentation and discussion. [INTERPERSONAL COMPETENCIES]
- Demonstrate mastery of a project's research process and subject matter. [BASIC ACADEMIC COMPETENCE]

ACTIVITIES

The experience consists of a group project, panel discussion on the projects findings or students' experience, question-and-answer session with audience, and supporting assignments (e.g. readings, questions, and written reflection). Student panelists make short presentations on a key aspect of their research project and then open up the floor for questions from the audience. Students in the audience listen and participate in questions-and-answer session after the presentation. The instructor or one of the students moderates, keeping student presentations within time constraints and facilitating discussion in question and answer session. Students in the audience can be asked to write down a certain number of questions during the presentation or assigned different stakeholder roles to play (e.g. farmer, business person, and child) during the Q&A (Faust & Paulson, 1998).

Timeline

- Select a research topic or help students pick one that aligns with and expands on syllabus.
- Explain the panel discussion process and purpose of the assignment to students so they can plan for it during their research project. Introduce work plan and code of collaboration.
- Give panel presentation assignment at least 2-3 weeks before presentation date. Assign or have student sign up for roles / tasks at this time (e.g. panelists, facilitators, tables and chairs, mics, lights, and PowerPoints, audience members).
- Hold dry run. Provide constructive critique throughout and give opportunity for students to offer suggestions to their peers, as well.
- Introduce students on day of presentation. Give audience members any assignments to compete or roles to take on during the presentation and Q&A.

• Post any wrap-up assignment before the presentation (e.g. written reflection) or have a discussion to process the information after the presentation and panel discussion.

ASSIGNMENTS AND ASSESSMENT

The assignments below can maximize learning outcomes of the Student Panel experience and produce outputs that can be assessed to determine achievement of the learning objectives.

Student panelists

- Create Code of Collaboration and Work Plan. Output: code of collaboration.
- Write group paper based on research project. Output: group paper.
- **Develop** an event guide designating roles and responsibilities and an agenda. Output: guide.
- **Present** group research in a panel discussion. Output: panel discussion agenda, presentations.
- **Represent** a role of an expert during the presentation or Q&A. Output: empathy
- **Perform** self- and peer-assessments on group project collaboration, presentation, and learning outcomes. Output: students' assessments.

Student audience

- **Read** material chosen jointly by instructor and student panelists. **Prepare questions** based on topic or concepts for panelists, which can be posed during question and answer session (helpful for large classes, where students interaction with the speakers is difficult). Output: written questions.
- Take notes during discussion and submit after class. Output: written notes.
- Write questions for panelists during discussion session. Submit to moderator, who randomly or selectively reads them to panelists during Q and A session (helpful for large classes, where students interaction with the speakers is difficult). Output: written questions.
- **Prepare questions** for panelists during discussion session. Pose them to panelists during question and answer session. Output: participation.
- Write reflection or guided essay assignment focusing on the connection between the panelists' perspectives and course material covered. Output: written reflection.

Use a Likert-scale to determine if students achieved all, most, some, little, or none of the learning objective. Develop a rubric with examples of answers that demonstrate students have achieved all (5), most (4), some (3), little (2), or none (1) of the objective.

TAKE THIS EXPERIENCE TO THE NEXT LEVEL!

- Give students more or less responsibility for developing structure of presentations, assigning and carrying out various roles and tasks during event preparation and facilitation.
- In a small class, there may be time for all students to present in panels. In a large class, this activity may be more appropriate for honors or extra credit.

BIBLIOGRAPHY & RESOURCES

- Faust, J. L., & Paulson, D. R. (1998). Active learning in the college classroom. Journal on Excellence in College Teaching, 9 (2), 3-24.
- Wiek, A., Withycombe, L., and Redman, C. L. (2011). Key competencies in sustainability: A reference framework for academic program development. Sustainability Science, 6, 203-218.

STUDENT PANEL DISCUSSION EXAMPLE: BIOPHILIA IN PHOENIX

SUMMARY

15 students from the Honors Section of Arizona State University's Sustainable Cities class conducted semester-long team research project to learn about biophilia and biophilic design in parks, preserves, and neighborhoods in the Phoenix Metro area. At the end of the semester they prepared and facilitated a student-moderated panel to present their team's findings to 300 peers in lecture hall.

Course	Level: 100; can accommodate group size: 20-400+
Enjoyment	Students get to research and present a relevant topic, and other peers get to ask them questions. Students will learn more about each other. The whole class is involved.
Learning	This is a good exercise both for testing knowledge and critical thinking and question-asking skills. It will also help train students on their research skills.
Adjustments	Professor may need to act as a moderator or work with students to hone questions, answers, and public speaking skills, and schedule in a due date for dry runs and panel discussions.
Benefits	Gets students excited about material and is an alternative to lectures and traditional assessments (e.g., test, essay).

LEARNING OBJECTIVES

- Take responsibility for roles and tasks while collaborating to prepare and facilitate an event that summarizes your research steps, tools, and findings, and increasing peers understanding of biophilia and biophilic design. [INTERPERSONAL COMPETENCIES]
- Recognize and engage plural perspectives of team, classmates, and community partners in design and execution of panel presentation. [VALUES THINKING]
- Identify sustainability problems in Phoenix and consider how biophilic design contributes to them or their solutions. [SYSTEMS THINKING]
- Analyze research site; analyze biophilic design and sustainability trade offs. [SYSTEMS THINKING]
- Identify ways sites could become more biophilic and sustainable. [STRATEGIC THINKING]
- Get to know a new place in the Phoenix Metro Area.

ACTIVITIES

Biophilia and biophilic design are concepts introduced to students in Arizona State University's Sustainable Cities Class. All students read *Biophilic Cities: Integrating*

Nature into Urban Design and Planning, watch the movie *The Nature of Cities*, and listen to a guest lecture from Dr. Timothy Beatley, director of the International Biophilic Cities Initiative. 15 students from the Honors Section of this class conducted semester-long team research project on biophilia and biophilic design in parks, preserves, and neighborhoods in the Phoenix Metro area.

One of the Honors Students' project deliverables was a panel presentation to their 300+ peers in the classes' main lecture hall. Each student took on a specific role or task. Two students were in charge of coordinating development of the event structure and questions that were engaging and informative. Two students were in charge of securing and setting up materials for the event (tables, chairs, extra mics, name cards). Two students were in charge of running lights, mics, and PowerPoints during the presentation. One student prepared and presented an introduction to the topic, the honors section, research sites, and team projects. One student facilitator posed preprepared questions to five student panelists (one per team), who gave prepared answers with some improvisation:

- 1. [Research Question] Which research site did you study, what were your general impressions of the site after your first field trip, and how did this influence your research questions?
- 2. [Methods] What were the biophilic indicators you chose to investigate, and what methods did you use to obtain that research?
- 3. [Findings] What did you find through your research, and how biophilic was your research site?
- 4. How does your site fit in the context of Phoenix? Are there lessons from which other parts of the metro area could learn?
- 5. Biophilia and sustainability can be at odds as not all environments (especially in Arizona) accommodate the same natural elements. Did your site's biophilic elements compromise sustainability in any way?
- 6. How does diversity within the built environment contribute to biophilia at your site? Single- and multi-family residences, parks, large shade trees, etc.

The facilitator then opened the floor up to audience members for 15 minutes of Q&A. Several honors students sat in the audience with prepared questions to get the Q&A going if necessary.

Timeline

- Assigned research sites and broad research at beginning of semester; students developed specific research questions within a few weeks. Mentioned the panel discussion at beginning of the semester so that they could plan for it during their projects.
- Gave panel presentation assignment at least 2-3 weeks before presentation date. Created list or roles and tasks, had two people sign up for each role in case of absences.

- Held practice session for panelists in class two weeks before event and then dry run in lecture hall one week before. Provided constructive critique and gave opportunity for students to offer suggestions to their peers, as well.
- Followed up with students during class to check on progress of preparation.
- Introduce students on day of presentation. Explained how topic fit in with course and prompted audience members to write down questions for Q&A session.
- Held debriefing with honors students to discuss what went well, what they would do differently next time, and what they learned through the experience.

ASSIGNMENTS AND ASSESSMENT

The assignments below that can maximize learning outcomes of the student panel experience and produce outputs that can be assessed to determine student learning outcomes.

Student panelists

- Wrote group paper based on research project. Output: group paper.
- **Presented** research in a panel discussion. Output: presentations.
- **Performed** self- and peer-evaluation on collaboration, presentation, and learning outcomes through debriefing discussion. Output: students' evaluation.

Student audience

• **Prepare questions** for panelists during discussion session. Pose them to panelists during question and answer session. Output: participation.

Use a Likert-scale to determine if students achieved all, most, some, little, or none of the learning objective. Develop a rubric with examples of answers that demonstrate students have achieved all (5), most (4), some (3), little (2), or none (1) of the objective.

TAKE THIS EXPERIENCE TO THE NEXT LEVEL!

- Simulate the world: Assign students in audience roles of stakeholders or experts (e.g. high / low income residents, city water manager, preserve volunteers, kid in park, future residents of Phoenix). Prompt students to consider how this person might react to the presentation, what concerns, questions, or ideas they might have, and then take on this role during Q&A.
- Give students more or less responsibility for developing structure of presentations, assigning and carrying out various roles and tasks during event preparation and facilitation.

BIBLIOGRAPHY & RESOURCES

Faust, J. L., & Paulson, D. R. (1998). Active learning in the college classroom. Journal on Excellence in College Teaching, 9 (2), 3-24.

STUDENT PANEL DISCUSSION EXAMPLE ASSIGNMENT: BIOPHILIA IN PHOENIX

SUMMARY:

The goal of this activity is to present the projects done by the five teams in the honors section in an interesting and engaging way. Your presentations will help your peers in the main lecture section get to know new places in the Phoenix Metro Area and learn more about course concepts of biophilia and biophilic design. The experience will help you gain experience organizing, facilitating, and participating in a big event! You will have up to 1 hour to present your 5 team honors projects to the main lecture section of Sustainable Cities through a panel presentation.

INSTRUCTIONS:

You will need to:

- Create and sign up for *roles and tasks* (introducer; facilitators; panelists; lights/visuals/ microphone; reserving and setting up chairs, tables, and extra mics; other) by [date].
- Decide how to *structure* panel (how do you introduce your presentation, how many panelists, who facilitates, is there a script or do panelists improvise, how will you keep your audience engaged, when will you invite questions from the audience, etc).
- Decide what you want the audience to get out of your presentation. Create a set of *questions* that when answered by panelists will convey what you did, why, what you found, and what it means to your audience. Get feedback from instructor by [date].
- Create an agenda / script for the event. Get feedback from instructor by [date].
- Prepare slide show, PowerPoint, or other *visual* to illustrate research sites and key concepts.
- Practice in class on [date].
- Hold *dry run* on [date].
- Arrive 15 minutes early on the day of the presentation [date] to **set up**. Bring multiple formats of any electronic material in case of technical difficulties.
- **Reflect** on what goes well, what you would do differently next time, and what you learned through this activity so that you can participate in reflection after the event.

LEARNING OBJECTIVES:

- Take responsibility for roles and tasks while collaborating to prepare and facilitate event that summarizes your project and increasing peers understanding of biophilia and biophilic design.
- Act as spokesperson for team, think on feet to answer questions based on knowledge, skills, and attitudes developed through the project.
- Recognize and engage plural perspectives of team, classmates, and community partners in design and execution of panel presentation.

- Identify sustainability problems in Phoenix and consider how biophilic design contributes to them or their solutions.
- Assess biophilic nature of research site; identify and discuss trade-offs between biophilic design and sustainability.
- Identify ways that research sites could become more biophilic and sustainable .
- Apply and be able to discuss steps of research in a collaborative sustainability project.
- Get to know a new place in the Phoenix Metro Area.

REMEMBER:

• Documentaries are usually created as tools for conveying a specific message and catalyzing specific action: *Dirt!* tells part but not all of the story of sustainability problems and solutions related with dirt within social-ecological systems. Think about whose story it tells and whose story or what parts of the story are left

ASSESSMENT:

• Your performance and outputs produced while organizing, facilitating, and participating in the panel presentation will be assessed by instructors and students to determine how well you meet assignment requirements and achieve learning objectives listed above.

OPTIONAL RESOURCES:

- Google "Panel presentations" to get an idea of how they work.
- Use Meeting Agenda Template to organize preparation meetings and structure event.
- Ask instructor about previous student panel presentations and lessons learned.
- Find out if any of your peers have ever participated in panel presentations get their ideas.

REMEMBER:

- You the students in the honors section are in charge of this event!
- Everyone must participate by taking on at least one role and actively supporting others.
- Take advantage of practices and dry runs ahead of time. We will know if you don't!
- The panel presentation will go on whether or not all participants are present be prepared.