Creating Tangible Outcomes

**What It Is**
Physical products that record, prompt, and reinforce student engagement with key course material.

Ideally, students take the tangible outcome with them after class to serve as a durable artifact of what happened in discussion.

**Why It’s Important**
- Serve as useful study aids during and after class, increasing student comprehension and retention of course content.
- Increases perceived value of the session by providing a reminder of the experience.
- Students are better able to articulate what skills or knowledge they learned/practiced, and how these relate to success in the class.

**I. IDENTIFY THE TANGIBLE OUTCOME**

For best effect, have students create the tangible outcome themselves. Here are some possibilities:

**GRAPHIC ORGANIZER**
Have students (in groups) organize information/ideas in some logical way—a flow chart, diagram, time line, chart, pro/con list, etc. Then have each group share their ideas on the board to see multiple ways of organizing and thinking about the information. Make sure each student walks out the door with a copy of the results.

**SOLUTION SETS**
Provide a worksheet of typical problems and give students a few minutes to solve the problems on their own. Then have students work in small groups to help each other with the more challenging problems. Finally, ask students to present their solutions on the board and talk through their thought processes.

**NOTES**
Are your students often discussing complex topics as a whole group? Creating tangible outcomes to “a lot of talk” can be challenging. Employ the board to help students organize, summarize, and relate the wealth of information that emerges from a large group discussion. You may also want to give students the opportunity to look at each others’ notes to create a more complete and accurate set of notes as a small group.

**EXIT TICKET**
In the last few minutes of class, pass out a blank index card to each student and ask them to write down what knowledge or skills they practiced that day. Collect the cards. Do your students’ responses match the learning objective(s) for the day? If possible, display student products in your classroom. Ask the students to make signs, listing steps, or model a thought approach, to display physically or electronically for the class.

**MORE POSSIBILITIES FOR TANGIBLE OUTCOMES**

- Be creative as you think about ways your students can record what students learn in discussion:
  - Graph
  - Outline
  - Flash cards
  - Political map
  - Timeline
  - Venn diagram
  - Story sequence
  - Flow chart
  - Caption for a cartoon
  - Critique
  - Brochure
  - Song lyrics
2. STRUCTURE YOUR CLASS TO SUPPORT THE CREATION OF A TANGIBLE OUTCOME

It can be very helpful to create visual representations of things that might otherwise only be stated orally (agenda, questions, answers, accomplishments, concepts, etc.). A chalkboard/dry erase board combines flexibility with a large area, allowing you to leave visual cues in place as long as needed. It also allows simultaneous contributions from multiple students.

Wise use of the board is especially important for a free-form discussion. Through writing and/or drawing, you can create a shared visual representation of a seemingly abstract conversation. The simplest way to do this is to outline the conversation that is occurring, by writing key words or phrases on the board in an orderly way.

Here are some techniques:

- **Organize**
  Arrange the information in a meaningful order: chronology, steps in a process, compare/contrast, etc. Leave spaces for missing information.

- **Summarize**
  Distill several comments or ideas into a single theme, then write a word or phrase describing the theme.

- **Relate**
  Draw a concept map, graph or diagram to represent the ideas being discussed and show how they are connected.

Use the board to reflect back what the students are saying, rather than dictating the content. Think of what is on the board as an “object of consideration,” not necessarily “the truth” – and remind your students of this perspective. Ask them to decide whether what is on the board is an accurate representation or not.

Also, keep in mind that you don’t even have to do the writing! Consider inviting one or more students to record important aspects of the discussion on the board, leaving you free to focus on facilitating discussion. This can also help you identify what students are hearing from the conversation in real-time, and allows you to address any misconceptions as they arise.

---

Tips for using the board effectively:

- **Erase the entire board when you enter the room.** This removes traces of a previous subject and establishes your presence.

- **Make good use of space.** Begin writing at the top left, and work your way to the right. Avoid “patch-working” - writing in random places on the board, erasing, and moving to another random place.

- **Be aware of your body position.** Only face the board when you have to in order to write; when you want to speak to the students, make sure you are facing them. Also, do not block the view of the board; when you are finished writing something, move out of the way.

- **Write neatly.** Remember, students’ notes will look an awful lot like what you put up on the board. So don’t rush, take the time necessary to write neatly. This will also allow time for students to take their own notes.

- **Erase the board to signal switching topics.** This prevents old material from distracting the students. Just make sure to ask students if they have taken all the notes they want before doing so.

- **Colors are your friend.** Using colored chalk or dry erase markers is helpful to highlight differences within text or figures. It is unlikely that the classroom you are in will have them, so remember to bring your own (you ask your department to supply them).

---

But what about technology?

**PowerPoint**
- When you make a PowerPoint presentation, you are actually doing all the work. And what are your students doing? Just listening and watching.
- Suggestion: Get students participating by incorporate slides with questions or activities (e.g., fill-in-the blank, discussion prompts, quick-writes). Remember the best tangible outcomes are created by your students.

**Document Cam**
- Like PowerPoint, the doc cam tends to be a place for you to profile something that you’ve created. Also be aware that students can feel overwhelmed by the density of information being projected.
- Suggestion: Invite students to the podium to display their work or contribute to a working document.