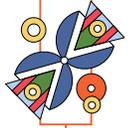


The Airplane Activity

Playful Learning Activity Card



Purpose

- ▶ To provide a playful experience to reflect on the documentation processes of observing, recording, interpreting, and sharing information with learners.

Preparations

- ▶ Collect materials and tools for your students to create paper airplanes:
 - ▽ Materials: Paper of different weight and sizes, tape, paper clips, wooden coffee stirrers or small sticks, small denomination coins.
 - ▽ Tools: Scissors, pens, markers.
- ▶ Display materials in an inviting manner.

Process

- ▶ Split class into small groups. Groups of five—three players and two documenters—are ideal. Help groups identify who will be the players and who will be the documenters.
- ▶ Introduce activity
 - ▽ Instructions for Learners: *Please come up with two different designs for paper airplanes that can fly at least 10 feet carrying at least small coins.*
 - ▽ Instructions for Documenter/Observers: *Please observe with the following question in mind: What do you notice about the individual and group's process of building knowledge about aerodynamics and what can you point to that makes you say that? Watch for interesting or important moments or shifts in the ways ideas are being developed. Afterwards, we'd like you not just to describe, but to interpret how those moments advanced the knowledge-building of the group.* Please document your observations individually. You can document in any way you wish—jot down bits of conversation or notes, draw pictures or diagrams, take photos or video with your cell phones—but you must document in some way!
- ▶ Provide time to play and document (15-20 minutes)
- ▶ Debrief in small groups:
 - ▽ Observers: Share with the learners 1-2 interesting or important moments or shifts regarding the ways ideas about aerodynamics were being developed and offer an interpretation of how they advanced the learning process.

- ▽ Learners: Share responses to the documenters' observations and interpretations, and your own reflections about interesting or important moments or shifts regarding how or what you or the group learned about aerodynamics.
- ▽ As a Small Group: Choose one thing you learned about documentation or how individuals and the group built knowledge about aerodynamics to share with the whole group.
- ▽ Whole group discussion: Small groups report one thing they learned about documentation or how the group built knowledge about aerodynamics.
- ▽ You can also ask: What did you notice or learn because of the documentation being shared?

More than One Way

- ▷ Modify the timing of the process to suit your context.
- ▷ Join a small group as a documenter. Often students, unfamiliar with principles of aerodynamics, will focus their documentation on group dynamics. To illustrate the documentation can also apply on content learning, focus your documentation aerodynamic issues, questions and ideas. For example, you can collect a list of words players use that touch on aerodynamics (e.g., weight, balance, drag, lift) or issues about flight surfaced (wing size, shape of plan, force used to throw the plane).
- ▷ Consider how to make connections to the Playful Participatory Research assignment.