ARONSON'S JIGSAW

A CO-OPERATIVE TEACHING & LEARNING TECHNIQUE

COMPLEXITY	**Effort to Facilitate:**	Low	Medium	High
	Effort to Participate:	Low	Medium	High

WHAT IS IT?

Elliot Aronson's Jigsaw is a co-operative teaching and learning technique in which a specific topic is divided into several (normally somewhere between three to five) parts or units (Apostol, 2013; Reese, 2009). Home groups have each of their members assigned to a different expert group. Each expert group consults and discusses a different part/unit assigned to them (e.g., a document, video, or other self-contained source of information), its members construct a uniform understanding, then go back to their respective home groups and take turns in teaching other group members what they have just learned.

ACTIVITY INSTRUCTIONS

1. Students form **home groups** composed of three to five students (e.g., 1, 2, and 3 in case of threes). The number of groups is the same as the number of topical units. Each student is assigned a different part of the reading/content (e.g., A, B, or C in case of threes). Note that the number of groups, the number of students in each group, and the number of units assigned must all the be same.

   Optional: instructors may choose to assign (or ask students to elect) a leader for each group.

2. Students leave their home groups and assemble into **expert groups** where the entire group focuses on a single unit of content (e.g., all members focus on part A of the reading/content).

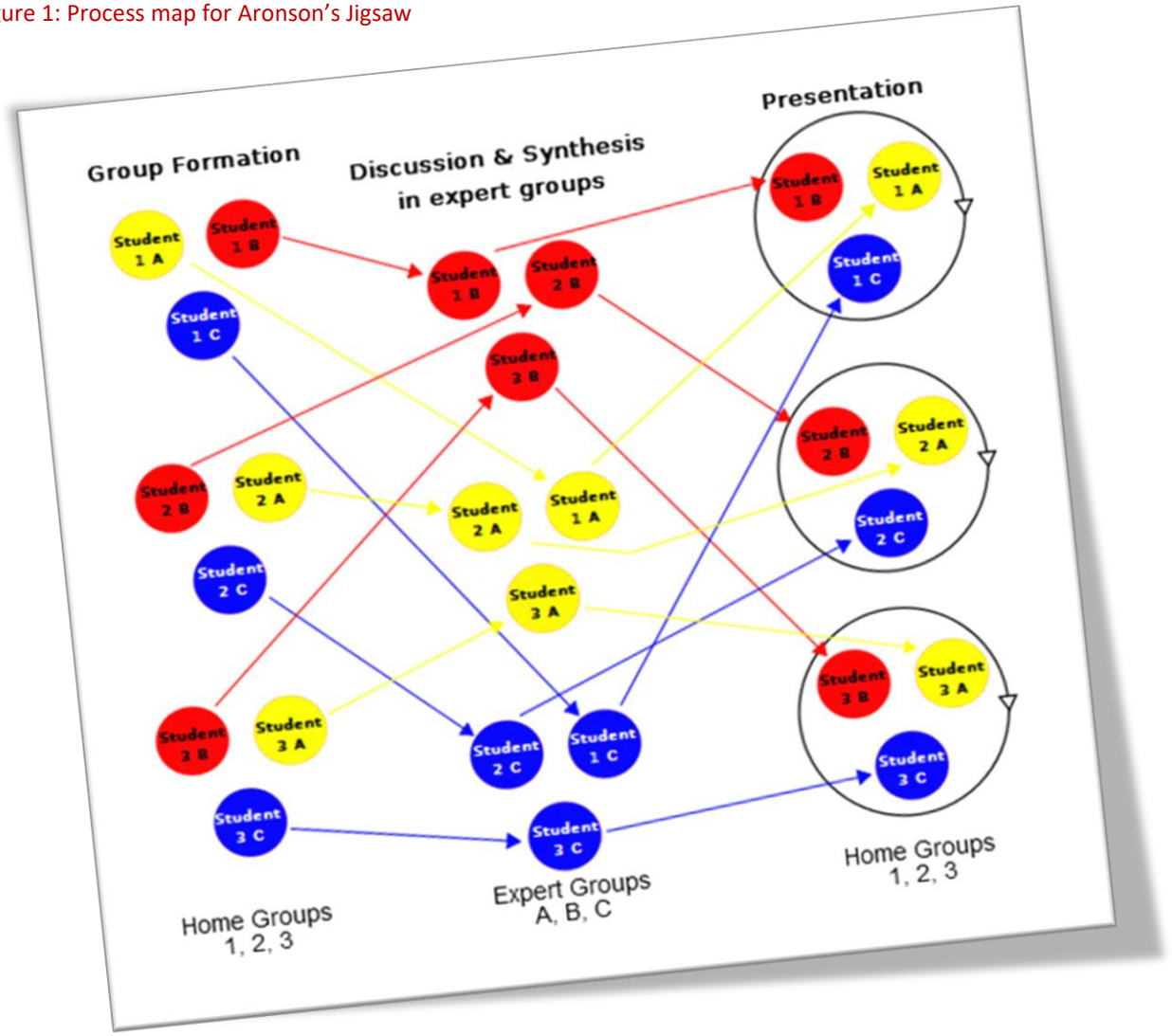
3. Students read and discuss the most important features and salient points of their reading until a common stance, approach, or interpretation is synthesized within the expert group. Note-taking should be encouraged.

   Optional: Students may plan a mini lesson as a group or a create a learning object (such as an interactive video) together.

4. The experts now go back to their respective **home groups** and take turns to provide a mini presentation to their other group members on the unit of content that had been assigned to them, as shown in Figure 1.

5. As the final step, this activity may be completed with a) a class debrief and discussion, or b) a formative or summative assessment. A debrief session provides the instructor with an opportunity to identify and remediate potential instances of misinterpretation, incorrect assumption, and any errors in understanding that emerge.

Figure 1: Process map for Aronson's Jigsaw



TIME REQUIREMENTS

Activity	Time/student		Time/class
Forming Home Groups:			03 min.
Gathering in Expert Groups:			03 min.
• **Reading Content:**			10-20 min.
• **Discussion/Debate:**			10-20 min.
• **Agreement:**			5-10 min.
Returning to Home Groups:			04 min.
• **Presenting Expertise**	10-15 min.	x 3-5 (number of students group)	30-75 min.
Class Debrief:			10-15 min.
TOTAL:			**75 to 150 min.**

LEARNING OUTCOMES				
What will students gain?	☑ Reading	☑ Listening	☑ Presentation	☑ Communication
	☑ Synthesis	☑ Leadership	☑ Critical thinking	☑ Problem solving
	☑ Reflection	☑ Teamwork	☑ Empathy	☑ Accountability

By the end of the activity, each student will have played the roles of a) teacher, b) expert, c) active workgroup participant, and d) listener. This activity exposes students to multiple perspectives; invites in-depth reflection (both individual and group); and promotes mutual accountability and individual responsibility. It is also an effective tool for breaking down social cliques and barriers, developing communal identities, decreasing prejudice and stereotyping, and laying foundation skills for the future use of cooperative learning strategies.

POTENTIAL CHALLENGES

- Some students might find this activity too demanding.
- Significant differences between individual communication and presentation skills may lead to significant differences in the understanding of various segments of content by various students.
- Ensure that all timed activities manage adhere to their intended duration (small slippages can add up and cascade into major delays, which can cause a breakdown of the structure).
- Instructor exercises limited control over the quality and flow of information (knowledge transmission).
- It is difficult for the instructor to effectively monitor multiple instances of synchronous communication.
- The number of groups, the number of students in each group, and the number of units assigned may not match. Consider different ways of organizing the activity and be prepared for some students being absent on the day of the activity.

HELPFUL STRATEGIES

- Furniture should be rearranged to create home and expert groups as required.
- Writable walls or virtual white/blackboards may be used to capture salient components and synthesize information within each expert group.
- Experts may project an infographic or presentation co-created with various tools (infographic app, Prezi, or Power Point) to support their mini presentation.
- The information should be collected to reconstruct the jigsaw puzzle in a sharable document.

ADDITIONAL RESOURCES

Apostol, N-P. (2013). King Henry VIII and his life story: Jigsaw reading. *Journal of Linguistic Intercultural Education, 6*, 43-57.

Aronson, E. (2000-2022). The jigsaw classroom. Social Psychology Network, https://www.jigsaw.org/

Aronson, E., & Goode, E. (1980). *Training teachers to implement jigsaw learning: A manual for teachers*. In S. Sharan, P. Hare, C. Webb, and R. Hertz-Lazarowitz (Eds.), *Cooperation in Education* (pp. 47-81). Provo, UT: Brigham Young University Press.

Aronson, E., & Patnoe, S. (1997). *The jigsaw classroom: Building cooperation in the classroom* (2nd ed.). New York, NY: Addison Wesley Longman.

Moskowitz, J. M., Malvin, J. H., Schaeffer, G. A., & Schaps, E. (1985). Evaluation of jigsaw, a cooperative learning technique. *Contemporary Educational Psychology, 10*(2), 104-112. https://doi.org/10.1016/0361-476X(85)90011-6

Reese, S. (2009). The jigsaw classroom. *Techniques: Connecting education & careers, 84*(4), 8-9.

Science Education Resource Center (2018). Jigsaw activities, *Pedagogy in interaction*. Retrieved August 30, 2022 from https://serc.carleton.edu/sp/library/jigsaws/activities.html

Would you like to learn more?

Contact us at Teaching Commons for additional resources, handouts, applications, courses, workshops, examples, advice, assistance, one-on-one consulting, and everything else related to teaching and learning. We are happy and eager to assist you!

Teaching Commons | Yelin Su | Robert D. Winkler

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1050 Victor Phillip Dahdaleh (formerly TEL) Building, 4700 Keele Street, Toronto, ON M3J 1P3

416.736.2100 ext. 55754

Created by Katharina Pabst & Robert D. Winkler