Smart Games for Smarter Learning

MONSTER PUZZLES

Making the Pieces Fit

A presentation tool for teaching team development and function, as well as the use of games in education

As a result of participating in this activity, learners will:

1. Recognize pieces of a child's contour puzzle in an out-sized format being used as a teaching tool.
2. Appraise the use of this tool in a smaller scale as a team-building activity.
3. Evaluate the tool in terms of use as a teaching aid in multiple disciplines.



Image: Cartoon people carrying large puzzle pieces and working together to complete a large puzzle putting a large puzzle together

This is a demonstration resource designed to be used in large audience formats. This mirrors a smaller, team-based activity employing children's puzzles, and can be used to teach principles of games in education, including immediate experience and management of risk and consequences.

Materials:

Large-scale children's contour puzzle
Foam board

Instructions

1. This activity is designed be used before an audience. Pieces of the puzzle are large-scale so that non-active participants can see and experience the struggles of making the puzzle pieces fit.
2. Learners in this activity include the observers, and the debriefing will include both the active participants (assemblers) and the observers.
3. The activity consists of giving a team the stack of puzzle pieces, and ask them to assemble the puzzle (the pieces of which should stick to the wall) to complete the puzzle as quickly as they can. Comments made by members of the assembly team may be broadcast for observers to hear to heighten the level of observer engagement.

Note: To elevate the cognitive load in this exercise, consider short windows of time to complete the task. The tool for this presentation is a large-scale children's contour puzzle cut from a product such as foam board.

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Lesson	Debrief Questions	Clinical Application	Bloom's Taxonomy	TeamSTEPPS™ Domain	IPEC Competencies
Round One: Active puzzle participants assemble the puzzle, which has been provided to them with all of the pieces' surfaces facing in one direction. No piece needs to be flipped over to complete the puzzle. Observers may not coach the active assembly team.	1. What went well? 2. Assemblers: What were the challenges that you encountered in completing this puzzle? 3. Assemblers: How much do you think the scale of this puzzle influenced your ability to solve it? 4. Observers: What did you observe about team functioning? How did the team organize itself? Were there identifiable leaders, and if so, what made them stand out to you?	This lesson can be used to teach how teams self-organize (leadership, team structure, etc.), how team members interact and problem-solve, and what happens when team members have too little information (no image from which to work.)	Analyze/Apply	Leadership Communication Team Structure	Values & Ethics Roles & Responsibilities Communication Teams & Teamwork
Round Two: In this round, active puzzle participants will face two challenges: puzzle pieces are inconsistent in that front/back surfaces are mixed. Some of the pieces of this puzzle will need to be flipped over, revealing the opposite surface, to complete the puzzle. Keep in mind that this means the puzzle can be correctly put together with either side up, making the task very difficult because team members must also establish which side of the puzzle they are trying to work on.	1. Assemblers: What challenges emerged in having the extra factor of some pieces being flipped over? 2. Observers: What strategies did you notice being employed by this team in Round 2 that you hadn't seen in Round 1? 3. If you were going to cite one factor that you think would have most helped this team succeed, what would that be? 4. How was this task like/unlike the need for a team to have a common vision– being on one page? 5. What role did supporting another's perception or viewpoint have in the successful completion of the puzzle?	This lesson elevates the "chaos" of Bloom's Taxonomy Team STEPPS domain Analyze/Apply Leadership Communication Team Structure IPEC Competency the task by having the pieces of the puzzle inconsistently laid out. In this activity, one can once again focus on leadership, team organization, and team problem-solving, but may also provide opportunities to speak about conflict/conflict resolution, and systems or "big picture" thinking. As indicated in the lesson description, part of the challenge here will be for the team to come to some sort of agreement about the overall orientation of the puzzle as they assemble it.	Analyze/Apply	Leadership Communication Mutual Support	Values & Ethics Roles & Responsibilities Communication Teams & Teamwork
Variation 1: This is an optional round played only if an image has been drawn or adhered to the surface of the puzzle providing clues as to how the pieces interlock based on that image. **Variation 2:** Do not allow speaking among assemblers during one round of this activity.	1-1. Assemblers: How did having visual clues about adjacent pieces affect you and your ability to complete the puzzle? 1-2. How is having information about other team members potentially helpful in the operation of a team? 1-3: How could the image placed on the puzzle be used to create more learning opportunities? V-1. What role does clear communication have in aiding a team in completing its task? V-2. How is not being able to speak freely during this task like the creation of a culture in which questions are not welcomed?	Both of these variations are intended to alter the cognitive load of the exercise. Variation 1 provides more information to assemblers to complete the task, and may be contrasted in terms of working with additional clues versus having no clues at all. Variation 2 alters the communication of participants, who must now not only figure out how to do the puzzle as a team, but must also figure out how to communicate clearly under the constraint of silence. Consider the possibility that elevating the cognitive load in Round Two may frustrate assemblers.	Analyze/Apply Evaluate / Create	Communication Leadership Situation Monitoring	Values & Ethics Roles & Responsibilities Communication Teams & Teamwork

For additional information about Debriefing, please refer to the ***Rosalind Franklin University of Medicine and Science Smart Games for Smarter Learning Debriefing Guide Supplement.***

References:

Department of Health and Human Services, Agency for Healthcare Research and Quality, & Department of Defense. (Year of publication/last update). *TeamSTEPPS: Team Strategies and Tools to Enhance Performance and Patient Safety.* [Description of material, e.g., Curriculum, Toolkit, Webpage]. Retrieved from https://www.ahrq.gov/teamstepps-program/index.html

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Interprofessional Education Collaborative. (2023). *IPEC Core Competencies for Interprofessional Collaborative Practice: Version 3*. Interprofessional Education Collaborative. https://www.ipecollaborative.org/assets/core-competencies/IPEC_Core_Competencies_Version_3_2023.pdf