Using EPCG for Designing a Hexagon Tangram Puzzle

Yazeed Mahmoud University of Alberta

Nathan R. Sturtevant

University of Alberta, Alberta Machine Intelligence Institute (Amii)







We used EPCG to co-create a rich puzzle game with a learning curriculum



Desi	use in the puzzle?	should we put on pieces?	curriculum?
Query	How many solutions are there for every set of pieces?	How does constraint placement impact the number of solutions?	What subset of pieces give a unique puzzle?
Result	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Image <td< th=""><th>Image: state state</th></td<>	Image: state

excluded from set

We keep all pieces

Act

Resulting constraints

We chose the

constraints with the

most solutions

Sample Curriculum Page

Minimal unique pieces are used to start the curriculum

http://www.movingai.com/