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Online Problem Solving

1. Which problems did you work through?

I tried the entrapment game and also the Towers of hanoi

2. Which problem was the easiest to solve?

I found the towers of hanoi slightly easier, because I didn't have experience with the entrapment game and having a limited number of gray circles was challenging

3. Why was it easy to solve?

I found that I could build knowledge from having less rings to use on the tower of hanoi while the entrapment game started with a random placement of dots and the limited number of gray dots that I had was difficult to figure out a midpoint for the multiple dots.

4. What type of problem was it (see Kirkley, 2003 article pg. 8)? Explain.

It's a moderately structured procedural problem.

5. What strategy did you use to solve the problem?

I moved around the circles in a certain "wave" pattern in order to work within the constraints of the rules.

6. How did you develop this strategy?

Slowly by building more and more circles on top at a time.

7. What declarative knowledge was needed to solve this problem?

The rules of where to put the circles and not to violate the larger circle on top of a smaller circle game.

8. What procedural knowledge was needed to solve this problem?

Each time you added rings you could feel out the "wave" of movement to build on the knowledge of how to move the rings.

9. Which problem was the most challenging for you to solve?

The triangular shapes with obtuse angles were less obvious than equilateral entrapment shapes as well as shapes that were closer to the border of the game board.

10. Why was it difficult to solve?

My brain isn't always thinking about the way that obtuse triangles could be shaped in order to entrap the circles.

11. What type of problem was it (see Kirkley, 2003 article pg. 8)? Explain.

It's a moderately structured procedural problem. There are rules and structure and the parameters are set but since the circles can move randomly to different positions on the board you do have to think of different strategies to solve each.

12. What strategy did you use to solve the problem?

I had to play around with encircling one dot first and then trying to entrap two dots with three dots. It was difficult to find a triangular shape that was equidistant in order to get the three dots to triangulate through the three dots on the screen.

13. How did you develop this strategy?

Being a person of less patience, I didn't read the instructions thoroughly before I used the strategy of trial and error. I had to go back to the instructions in order to gain the triangulation tip of entrapment of the three circles. Then I actually changed my game board several times where the dots were in a more conventional triangle shape in order to first gain knowledge and confidence and strategies to use with more obtuse angled triangle shapes to win at the entrapment game.

14. What declarative knowledge was needed to solve this problem?

The declarative knowledge with the equidistant rule.

15. What procedural knowledge was needed to solve this problem?

The procedural knowledge is that "triangle" shapes were needed in order to trap the last circle.