

Good practices

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Description of the problem / exercise: Quad or Winner fourths (game)

Materials needed: Two Poly-Universe game sets, square base form (24+24 pieces), task cards and action cards (it is advisable to use three to four times more task cards than action cards)

Number of players: 3-4

Preparations: two sets of square elements are mixed together and placed on the table in two columns. The starting player places an element from the top of one of the towers in the middle of the table, then deals three cards to each player, who places them on the table in front of them. The task cards and action cards are shuffled thoroughly, this deck is also placed face down on the table, and everyone draws until they have exactly two task cards (regardless of any action cards they may have drawn). These small cards are not shown to each other.

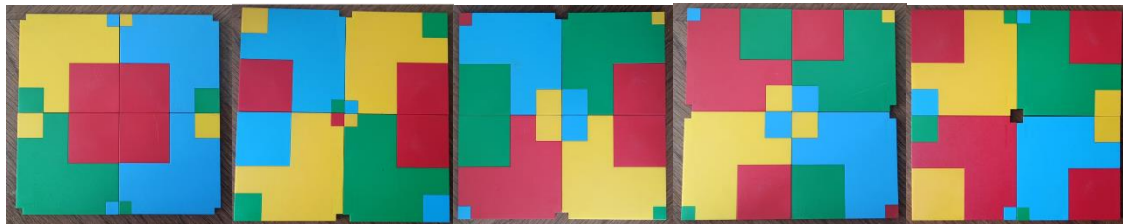
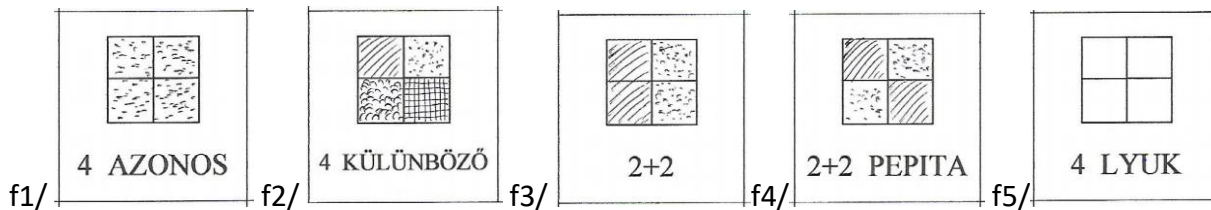
Goal: to get as many task cards as possible by completing the patterns of the game.

How the game is played: The starting player places a square Poly-Universe element on the board, choosing one of his three own, so that the patterns of the same size meet. He tries to complete one of his task cards. He takes a new element from the top of one of the towers in place of the discarded one, always with three in front of him, so that he can choose from them when it is his turn. Clockwise, the second player is next, and so on, each trying to make the deposits for their own benefit. Someone can get a task card if he or she has inserted the last, i.e. fourth quarter of patterns into the larger square unit. The game ends when both towers and players run out of square elements. Then the task cards collected can be counted, with the winner being the player who has collected the most during the game.

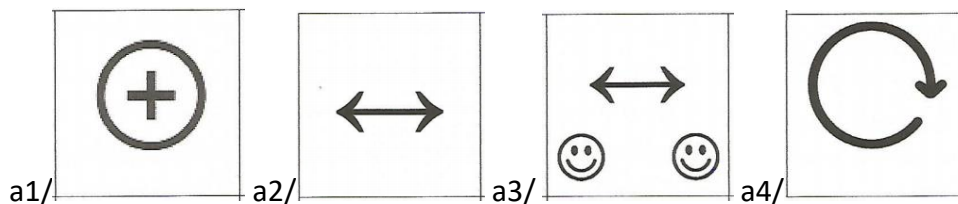
The instructions on the task cards are: f1/four identical squares; f2/four differently colored squares; f3/two identical squares next to each other; f4/two identical squares in diagonal position; f5/the four square elements meet each other with their hole sides, color does not matter here.

Action Cards can add an exciting twist to the game, one per round as follows: a1/ any element already placed in the middle of the table can be replaced with another element; a2/ in a connected puzzle, you can swap any two elements of your choice; a3/ you can draw a task card from one of your opponent's cards and then return as exchange the one you like less from your own; a4/ everyone passes a task card of their choice clockwise to the next player. The used action cards are discarded after use and replaced by a new one (you always have two).

Task cards:



Action cards:



Game versions:

a/ The game can also be played in pairs.

b/ You can prepare more or fewer columns, varying the number of possibilities to choose from.

c/ You can also draw items from a bag, although, in this case, luck plays a much greater role than tactics.

d/ If one does not wish to place, we can give the option of replacing one/two/three elements in one's own round with new ones.

e/ You can change the number of task cards or Poly-Universe elements that players have.

f/ We can give different scores to the task cards. Before each game the group should agree on the scores depending on how difficult they think it is to complete. Obviously getting the four holes will be worth the least, we can call this the Joker.

g/ If there are four or six players, players sitting opposite each other can work together. In this case, the task and action cards are also made visible on the table, and the active player can choose from his partner's elements and task cards, giving him a better chance of completing the puzzle successfully as soon as possible. We can calculate proactively, taking into account the possibilities of 6 cards instead of 3. At the end of the game, the task cards collected by the cooperating players are counted together.

h/ When using two sets of triangular elements instead of squares, the aim can be to solve a half regular hexagon (three triangles/one trapezoid) with similar conditions on the puzzle cards.

- *Why this exercise is good:* It develops tactical thinking, visual attention and communication skills and, in the g/version, cooperation skills.
- *Which level is recommended:* Upper level of primary school, secondary school, adults
- *School subject(s):* Mathematics, logic
- *Comments:* Let students make up their own game rules, design task and action cards together!