Lesson Plan – Skyscrapers

Goals:

Exercise and improve numerical and logic deduction skills

Suggestions:

You can start with a 3x3 version.

Commented description of materials to be used:

SkyScrapers is a puzzle where 16 buildings (4 of each height) are placed in a 4x4 matrix. The buildings are hidden and some clues about the number of them seen from the sides of the matrix are given, so all the positions might be logically deduced.

Suggestions:

You can construct a version with multilinks or 3D printer.

Strategies:

After solving some easy challenges, we guide the students through some basic configurations, in which a simple deduction gives you some more information. We increase the level of difficulty of the puzzles and let the students produce their own logical approach to the puzzles.

Suggestions:

There are two boards, the one with numbers 4 is easier than the other.

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Appraisal / Evaluation of Students:

We use a set of puzzles of different degrees of difficulty.

Suggestions:

You can time how long it takes to complete the same board on different occasions.

Assessment of lesson:

We compare the competence of the students solving SkyScrapers puzzles at the beginning and the end of the lesson. Also, we qualitatively try to understand whether the students appreciate the logical approach to intellectual challenges.

Closure:

We review our actions and purposes so we can spot strong and weak spots in our activity and its implementation. We record our impressions for future use in the process of getting better and better at this.

Suggestions:

You can have a dozen grids on paper sorted by difficulty level, so that anyone who wants can challenge themselves.

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