Example of a Lesson Study - Croatia, V. gymnasium

One of the Croatian teams did their second lesson study cycle during May and June 2021. The topic was distance and angle (stereometry). The main goal for this lesson was defining basic terms in stereometry such as distance and angle and later understanding and improving someone else's definition and making a manipulative model based on it.

Students were working in groups and had to define one of three different terms: distance from a point to a plane, the angle between line and plane and the angle between two planes. There were six groups and every term was given to two groups to define. They had examples from the classroom for every term that helped them visualise the problem and write down their own definition. After this task, all the groups made a rotation of their materials and had to read and improve definition of another term that some other group wrote. They struggled with understanding the definition that wasn't their own and made some adjustments before writing the final one.

After finishing the definition, the groups made a final rotation and then had to make a manipulative model based on a definition that wasn't theirs. This way all the groups got an opportunity to think about all three different terms.

When they finished the model, one student from each group prepared a short oral presentation and showed their model to the rest of the class. The group with the same term comes next presenting and after that the teacher hangs the formal definition on the board and comments whether their models and definitions were accurate or they were missing some conclusions or specific cases.

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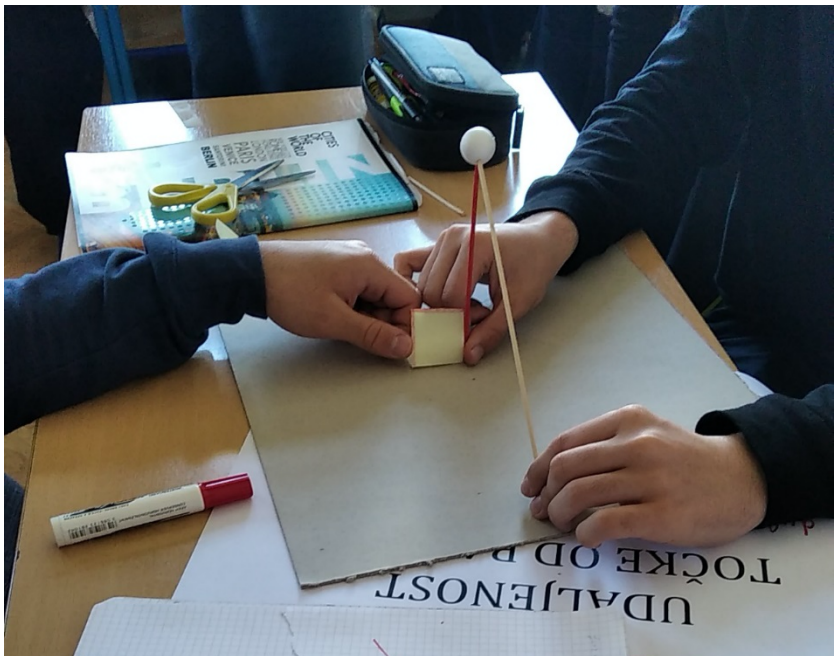

All the groups managed to make their own models and were surprised with the overall accuracy of the definitions they wrote in the beginning. Of course, there were some deficiencies and inaccuracies, but this way they all realised the importance of precise definition and adequate use of mathematical language since they had to understand something they didn't write and make a model based on it.

The lesson was performed three times and the team members were very satisfied with the students' work and creativity they have shown. They had a lot of fun, worked successfully as a team and made some very important definitions and models all by themselves. The results are planned to be presented at some TIME project meeting, together with students' feedback and ideas how to improve the lesson for the next time.

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