

Evaluation report: complex string art with GeoGebra

Method: interview with all students of the group

Age group: 27 students in grade 8, course of computer science

Questions and answers:

1. Did you like this unit? yes 25 ok 2 no 0

Explain why you liked it?

1. *It was a challenge to try it out.*
2. *The hint to reflect or rotate nice creations to get a more complex result was very good.*
3. *After having one string connections it was easy to copy the commands and only changing the names of the points.*
4. *I was surprised that it was so easy because the results look very complex.*
5. *We all got very interesting results after a short time of work.*
6. *It was creative. I liked that we could animate our creation at the end.*

2. Were there enough information for you personally in the worksheet?

yes 20 it was ok 4 not enough 1

3. Is there anything that you like to change in this worksheet/in the lesson before using it for another group? Tell me!

a) *The names of the lists have to be exactly the same like in your GeoGebra file. If they are different it confuses me.*

b) *It was ok and a challenge to get it work. Sometimes spaces when typing the commands caused that the commands did not work. You (me, the teacher) should mention it.*

4. Do you think that this GeoGebra work had to do s.th. with coding?

Yes 18 perhaps 4 no I don't know 5

My personal evaluation:

Students are used to pay more attention on representations that are dynamic and not static. It was the first time that they my students used sliders and lists. So it seemed to be a challenge for them to find out how the two basic GeoGebra commands really work. Variables and lists are often used for coding. So in my opinion it was a good preparation of basic coding concepts, anticipating in advance how the effect will be. The add-on for my students was to animate their complex construction. To find the right way of animation was motivating and made fun for them.

Results can be seen here: <https://www.geogebra.org/m/FSGTCxFt>