

## Collaborative SWOT analysis

# App: GEOGEBRA

**Use:** Program used for drawing and visualising geometric figures

**Useful for following subjects:** Maths, especially geometry, but also algebra (visualising functions)

**link:**

Online use: <https://www.geogebra.org/classic>

Download: <https://www.geogebra.org/download>

Video manual: <https://www.youtube.com/user/GeoGebraChannel>

**Please contribute to the analysis by adding the conclusions reached as a result of your observation.....**

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| <b>Internal</b> | <b>Strengths</b><br>(What makes it an advantage over other apps or other resources) | <ul style="list-style-type: none"><li>- cost free</li><li>- Very easy to learn, so it can help the students from the first minute</li><li>- suitable for children from age of 10 years</li><li>- the app is self explanatory, illustrated with clear symbols</li><li>- possible to use online with the web browser or offline with the app</li><li>- geogebra has a huge community, where you can find help, videos, suggestions and extensions in the internet</li><li>- with its extensions it is still useful for more complex mathematical problems</li><li>- The app is still developing and growing, just try geogebra augmented reality</li><li>- possible to import geogebra situations in other programs</li><li>- <i>The application can be used online without the need to be installed on the devices</i></li><li>- It can work offline</li><li>- It can solve basically any type of operations</li><li>- Calculations are simplified</li><li>- Students learn theory while doing exercises</li></ul> |
|                 | <b>Weaknesses</b><br>(What makes it a disadvantage relative to others)              | <ul style="list-style-type: none"><li>- to work on a higher level with geogebra, students and teachers have to invest time to learn the functions of geogebra itself, like programming certain mathematical problems. So it is more to learn the program, instead working on mathematical solutions.</li><li>- You need to know the app very well to exploit all the potentialities</li></ul>   |

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| <b>External</b> | <b>Opportunities</b><br>(elements from the context/<br>environment that<br>can be exploited to<br>its advantage)                            | <ul style="list-style-type: none"> <li>- <i>students transfer geometrical problems on the device and work on another level</i></li> <li>- <i>mathematical operations get more flexible and open horizon of the student</i></li> <li>- <i>working on bigger projects over more lessons, where students have the opportunity to correct mistakes or expand their drawings</i></li> <li>- The students can self-correct the exercises</li> <li>- immediate correction of the study of function(PLOT)</li> <li>- Through its use you can improve other technological skills</li> </ul> |
|                 | <b>Threats</b><br>(elements from the context/<br>environment that<br>can create<br>obstacles and<br>difficulties to the<br>use of that app) | <ul style="list-style-type: none"> <li>- main threat is to work with geogebra, because it is nice, instead of using the program to improve the students mathematical skills</li> <li>- Problems with the connection if you don't work offline</li> </ul>   |

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