INTERACTIVE CONCEPT CARTOONS:
EXPLORING AND LEARNING ABOUT SOCIO-SCIENTIFIC ISSUES

In socio-scientific issues, forming opinions plays an important role. Students must learn to think critically and support their opinions with arguments. They need substantial knowledge for this and must be able to relate to the available scientific information and the correct interpretation of it. Students need to understand that such issues are complex and complicated, but that arguments must be based on facts.

The educational instrument

The educational instrument is developed for the upper primary school and the lower secondary school levels. Students are encouraged to engage in discussions with each other and to provide support for their viewpoints on the subject matter.

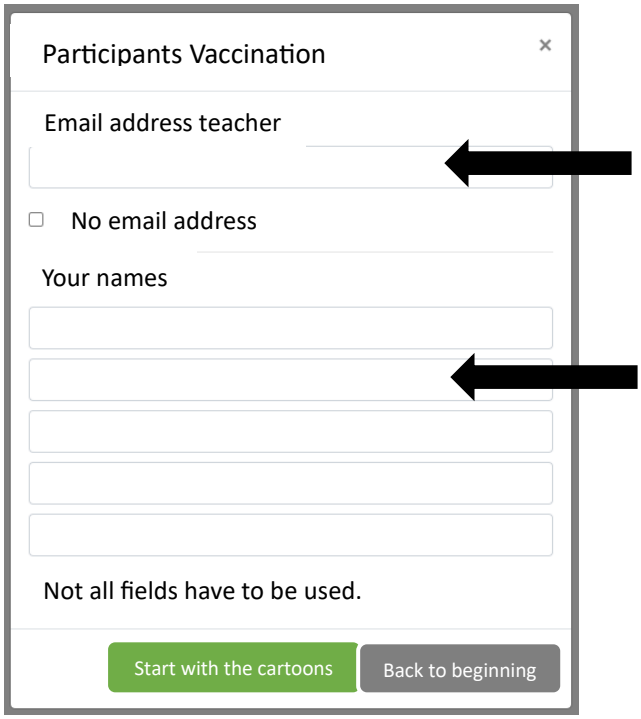
The educational instrument consists of an web-based component with concept cartoons, textual information (pop-ups), and a diagram . Students work in groups and each receive a worksheet with instructions and a final assignment. A lesson typically lasts 30-45 minutes.

Classroom climate and safety

For all discussions on topics where students may have differing opinions, it is essential that this takes place in a safe classroom environment. Due to the instructional design where students work independently in small groups, discussions among students will (partly) take place out of the teacher's sight. Therefore, it is important that the teacher only uses this educational instrument if classroom safety can be guaranteed.

Starting the Lesson

By clicking on *start*, you will be taken to the page with the various topics.
Under *Download Materials*, the worksheet and a teacher's guide are available.
By clicking on the image, the following login screen will appear:



It is possible to receive a file via email after the lesson that shows the choices the students have made. If the option 'No email address' is selected, the file will be downloaded directly to the computer. This data provides insight into what the students have done and allows the teaching to be adjusted accordingly.

Students each enter their name in a field. A maximum of 5 students can work together in a group.

Contact

For questions and comments:

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Read more?

Kruit, P. M., Bredeweg, B., & Nieuwelink, H. (2024). Addressing socio-scientific issues with interactive concept cartoons: design of a web-based educational instrument. *International Journal of Science Education*, 1-21.

Kruit, P. M., Bredeweg, B., & Nieuwelink, H. (2024). Enhancing students' argumentation skills, content knowledge, and Nature of Science understanding through a web-based educational instrument in the context of socio-scientific issues. *International Journal of Science Education,* 1-20.