

## **Interactive math and science education in the Benelux, using TI-Nspire and TI-Navigator in secondary education**

*Gert Treurniet (The Netherlands) and Jürgen Schepers (Belgium, Flanders), Both teacher in secondary Education and consultant for Texas Instruments*

[g.treurniet@xs4all.nl](mailto:g.treurniet@xs4all.nl) [jurgen.elke@skynet.be](mailto:jurgen.elke@skynet.be)

Can the use of wireless systems be profitable to the educational process? Gert and Jürgen both apply a wireless system in their classroom in the Benelux. This system can be combined with the computer algebra and dynamic geometry system of Texas Instruments. Gert and Jürgen use it to send documents to the students, to send the students questions, to provide them feedback to their answers, to enable them to present their work, to check activities of the students and so on.

In this workshop, you will be able to experience the value of the use of this system. After a short presentation of the system and a short hands-on training, you will be able to be part of an interactive class.

Gert and Jürgen will combine the interactivity with computer algebra and dynamic geometry, thus creating a multi-representation view of the mathematical subjects. Their impression is, that this helps the students in understanding math faster and deeper. Students also seem to be more motivated to work in as well as the lessons as at home. This benefits to the education.

Computer Algebra and Dynamic Geometry systems also can be used as the base for creating animations. Students can explore these animations, answer questions with possibility to check the answers themselves.

Documents created can be published on paper, in virtual learning environments or on the web. Students can use them at home or elsewhere.

Most students like the application of the system for educations. Some responses from them:

- I can see if I am the only one which does not understand the subject
- I can do it at my own speed
- I get a lot of feedback from the teacher
- It motivates me, because it is modern
- It is easy to use
- After a short explanation, you can start working earlier
- I get a better image how math and science work
- I now immediately know if I understand the subject.

About 80 % of the students answer positive to the question: “Do you think, that you better understand the subject if you use this system?”.