

# Dialogic Teaching with the HP Prime Connectivity Kit

Advanced Pedagogy with the HP Prime

Chris Olley

In my classroom, I want to engage my students in mathematical conversations. I want to listen to their responses, take full account of them and react and respond accordingly. In my work in teacher training, I am struck by how often I watch a beginning teacher engage with their class and a student says something deep and insightful. Capturing that moment requires skill and knowledge, but it also requires an activity setting in which there is the opportunity to think deeply. Really good mathematical software provides the means to construct the dynamic and open activities that allow for deep thinking. The difficulty is for the teacher to be aware of what students are doing and thinking while it is happening.

HP Prime has a full suite of mathematical software to make the activities possible. Now with the HP Prime Connectivity Kit, the teacher can see the screen of all connected student machines updating regularly. The teacher is on the lookout for what Martin Gardiner referred to as Aha! moments. Those key break through points of mathematical insight. Now there is a choice, open a one-to-one discussion asking the student to describe or explain their thinking or maybe the whole class could benefit from seeing the student's screen and hearing their thoughts.

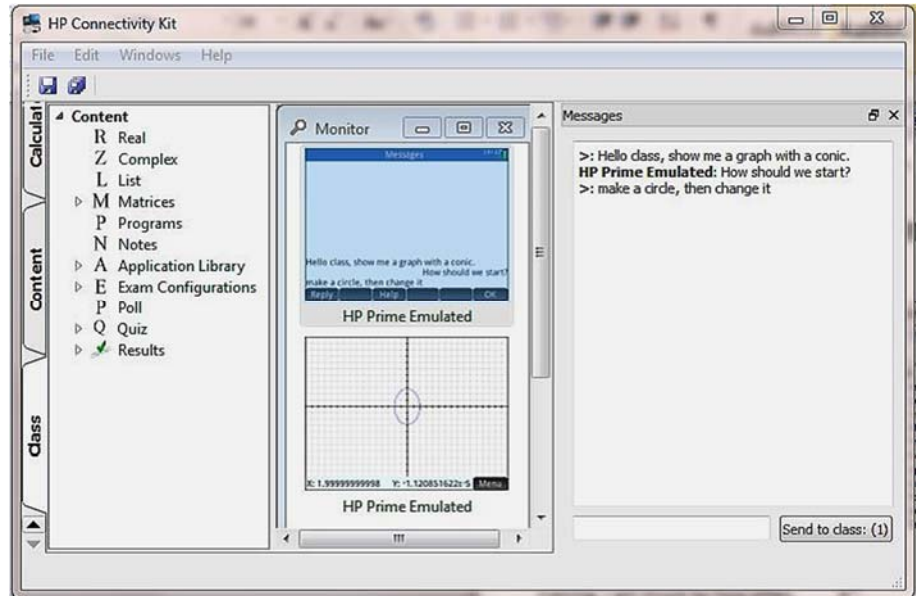


Fig. 1 – HP Connectivity kit screen.

To achieve this effect with other technologies has proved hard because of the enormous hardware and set up overheads. With the Connectivity Kit, you install software on the PC, connect HP Prime to the PC and that's it. The handheld is registered in the class and an updating screen shot appears. As of now, this works through USB cable connection. By the start of 2014, with the addition of a low cost dongle to plug in to the top of the HP prime, and a corresponding adapter for the PC (much like those used in wireless mouse and keyboard sets), the whole system will be fully wireless, with absolutely no set up.

I'm running two versions of the emulator so you can see my class of two students! We have a content pane which allows for the creation and sharing of content. We have the monitor pane showing the handheld screenshots and we have a pane to show messages between teacher and students, either individually or collectively.

I can send a task to the class and monitor the responses. No names are shown, so students are comfortable for their work to be on view. Students can send a reply or ask a question and I can respond personally to them.

Now use a 'Poll' to get feedback – see Fig. 2.

You can see that the handhelds all receive the question and can send back a response – see Fig. 3.

All of the responses are collected – see Fig. 4.

The student responses may be analyzed – see Fig. 5.

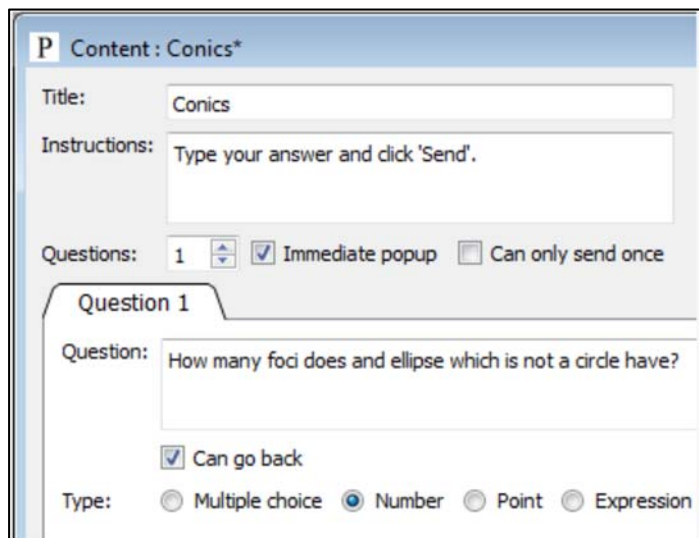


Fig. 2 – Sending a pole to the students

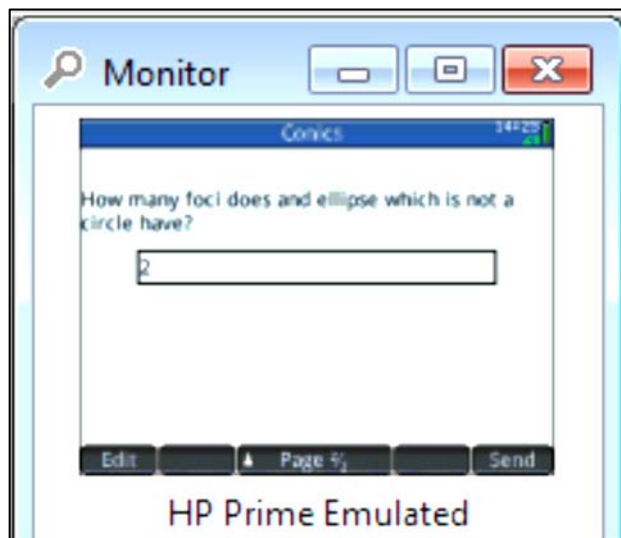


Fig. 3 – All student's machines received the pole

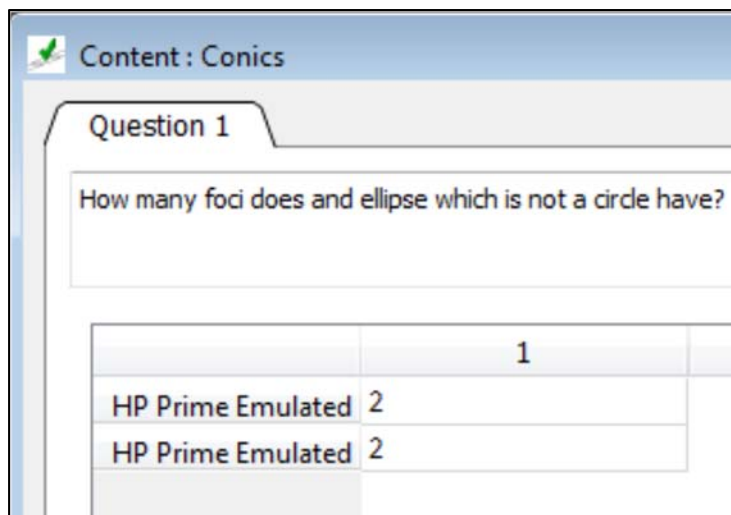


Fig. 4 – All (two) student's responses collected.

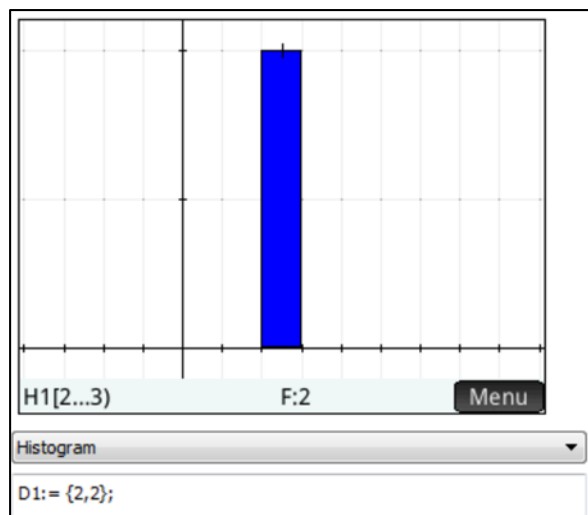


Fig. 5 – The student's data is analyzed.

The essential feature is *no set up time*, we just get talking mathematically. The HP Connectivity Kit will be available in early February for use in your classroom.

For more information please contact HP's Calculator Business Development Manager, [Enrique.Ortiz@hp.com](mailto:Enrique.Ortiz@hp.com).