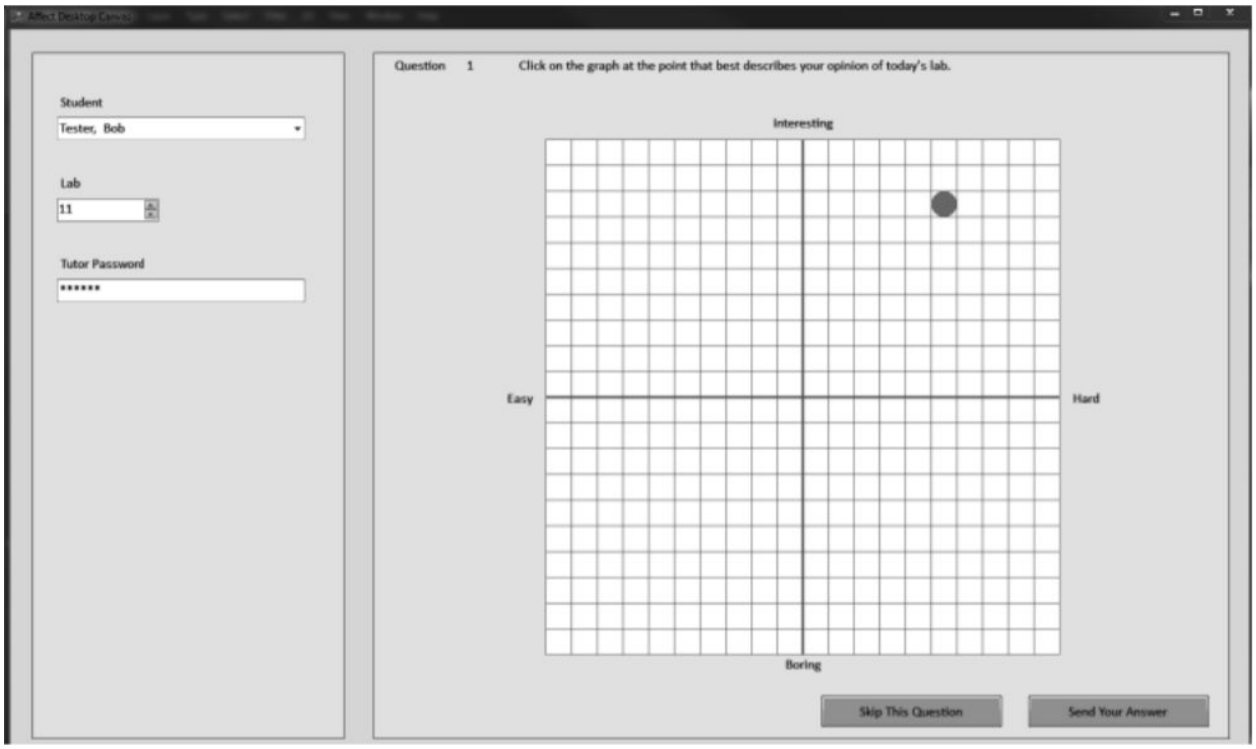
Student Affect in CS1: Insights from an Easy Data Collection Tool - Summary and How it is Relevant to Us?

Researchers in New Zealand detailed an experiment conducted on first-year students. They "rated" their assigned labs based on the following criteria: interest, difficulty, plan, familiarity, satisfaction, and improvement. This experiment aimed to monitor a student's emotional experience in the hope of keeping a student from losing interest and ultimately failing out of the computer science program. To gather the data, students were presented with three questions at the end of each lab. One of the questions asked the students how they felt about today's lab; if they found it interesting, boring, hard, or easy. The students would rate it on a grid. If students found it too easy, they would lose interest, feel little to no satisfaction, and have no improvement. However, if they found it too difficult, they would still lose interest and gain no improvement but this time due to frustration. The key is to have course material that provides a challenge that is just right for optimal learning. The research concluded that such a simple digital response tool highlighted the specific problems within the course material. This research is relevant to our team because it showcases how beneficial this "simple digital response tool" can be for professors and future computer science students.

Sample question from experiment.



Affect Tool Grid Axes.

	Scale Descriptor	Scale Endpoint (-10)	Scale Endpoint (+10)	Axis
1	Interest	Boring	Interesting	Horizontal
	Difficulty	Easy	Hard	Vertical
2	Plan	I didn't know how to approach these exercises.	I had a clear plan for these exercises	Horizontal
	Familiarity	Content was all new	Content was familiar	Vertical
3	Satisfaction	I feel frustrated	I feel triumphant	Horizontal
	Improvement	My programming skills have not improved	My programming skills have improved	Vertical