

## Students' perceptions of the teaching received

MorAis, A., Barragués, J. I., & Guisasola, J. (2015). Using a classroom response system for promoting interaction to teaching mathematics to large groups of undergraduate students. *Journal of Computers in Mathematics and Science Teaching*, 34(3), 249-271.

20 Items

5 Dimensions

### Conceptual Understanding

[Q1] I am more aware of my misunderstandings/difficulties than in traditional classes.

[Q2] Using the clickers helps me to understand the concepts behind problems.

[Q3] The questions asked during clicker sessions help me to understand what is expected from me in this class.

### Learning

[Q4] Using clickers helps the teacher to become more aware of student difficulties with the subject matter.

[Q5] I have to think more in classes with clickers than in traditional lecture

[Q6] Hearing other students explain problems in their own words when working in our small groups helps me to learn.

[Q7] I remember less after a class with clickers than after other classes.

### Interaction and Discussion

[Q8] I got to know fewer students than I usually do in a traditional class.

[Q9] I think that anonymous participation is a good idea.

[Q10] I am more actively involved during classes with clickers than during traditional classes.

[Q11] Discussing clicker questions with other students in the class helps me to understand better the subject matter.

[Q12] Team members were actively involved in solving the questions.

[Q13] Collaborative work among group members contributed to a better quality solution to the problems.

### Enjoyment

[Q14] Using the clickers helps me enjoy this class more than I enjoy traditional lecture classes.

[Q15] Seeing the class responses to a concept question (histogram) helps increase my confidence.

[Q16] The clicker approach should be used for other subjects.

[Q17] I am more likely to attend class because of using the clicker system.

### Planning

[Q18] This approach to the subject requires more work from the students than a more traditional approach.

[Q19] I find it appropriate that the teacher leaves the prior reading on the lesson and exercises for homework.

[Q20] This approach to the subject makes the student more responsible for their learning than a more traditional class.

3-point Likert Scale (Agree, Neutral, Disagree)

Cronbachs  $\alpha$ : na