

### ***Perceptions of the use on their engagement & learning***

Dunn, P. K., Richardson, A., Oprescu, F., & McDonald, C. (2013). Mobile-phone-based classroom response systems: Students' perceptions of engagement and learning in a large undergraduate course. *International Journal of Mathematical Education in Science and Technology*, 44(8), 1160-1174.

17 Items

2 dimensions

#### *Perception of the Engagement*

1. Obtained instant feedback
2. Interaction effective
3. Helped me be active in class
4. Increased my frequency of participation
5. Anonymity encouraged me to participate
6. Helped me pay attention in class
7. Increased my peer awareness
8. Helped me concentrate in class
9. Motivated me to learn
10. Encouraged me to attend class

#### Perception of the learning

1. Instructors used results to reinforce material not understood
2. Helped me understand concepts
3. Enhanced my learning
4. Helped me think more deeply
5. Gave me more control over my learning
6. Often voted correctly, but without understanding
7. Would like to receive credit

5-Point Likert Scale (strongly agree; agree; neutral; disagree; strongly disagree)

Engagement Cronbachs  $\alpha = .91$

student learning Cronbachs  $\alpha = 0.79$