Usage of Engaging Moments (E-moments) to Enhance Learning in an Introductory Animal Science Course

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Perception of Large Classes

- Boring Lectures
- Minimal Engagement
- Optional Attendance
We hypothesized that E-moments ...

✓ Help students comprehend information
✓ Break up the monotony of lecture
What are E-moments?
(Reardon & Derner, 2004)

✓ Short activities
  ➢ 5–10 minutes
✓ Mentally stimulate
  ➢ Comprehension
  ➢ Recall
  ➢ Transfer
What are E-moments?

✓ Apply to 1 or more of 3 learning modalities
   ➢ Kinesthetic, Auditory, or Visual
What are E-moments?

✓ Theoretically,
  ➢ ↑ students’ challenge level
  ➢ Create positive emotions
  ➢ Students synthesize content
    • in their own words
  ➢ Instill success in content
UCARE Project

✓ Foundational Introductory Course
✓ 4-credit course
  ➢ 3 hrs of lect (MWF, 8:00 AM)
  ➢ 1 2-hr lab session
✓ Fall semester, 2011
  ➢ 103 students enrolled
What did we do?

- Variety of E-moments selected for use
- Conducted on randomly selected days
  - 14 times throughout semester (~ 1-2X/wk)
- “Control” lectures; No E-moment
Example E-moments Used

✓ Cartographer
Example E-moments Used

✓ Eye-witness
Example E-moments Used

✓ Party Host
Example E-moments Used

✔ Dickens

Princess Milking is locked up in her alveoli dungeon within the lobecastle. She is kept alive by the constant blood supply and her hopes for Prince charming to come rescue her. Prince Myopeplastem and his trusty steed oxytocin finally made their way from the magical kingdom to release her from the prison. Oxytocin allowed Prince Myopeplastem to squeeze the Princess out of the dungeon. But they were not free yet. Upon being released from the lobecastle they had to trek through the gland cistern forest and across the heated cistern river. Then they were so close and could see the magical kingdom. But first they passed through the magical streak canal portal. They were finally home! And they lived happily ever after. The end.
What did we do?

✓ To test short-term retention & understanding
  ➢ 3-question “clicker” quizzes administered
  ➢ Upon start of the subsequent lecture

✓ Anonymous survey
  ➢ Administered the last week of class
    • To what extent do you agree with the following statements ...
      - 1 = Strongly Agree
      - 2 = Agree
      - 3 = Neutral
      - 4 = Disagree
      - 5 = Strongly Disagree
E-moments helped me recall key points for quizzes and tests

Avg Score: 2.54 ± 0.15

1 = Strongly Agree
2 = Agree
3 = Neutral
4 = Disagree
5 = Strongly Disagree
E-moments helped me understand material at a deeper level

Avg Score: 2.74 ± 0.14

1 = Strongly Agree
2 = Agree
3 = Neutral
4 = Disagree
5 = Strongly Disagree
Average Student Performance on Subsequent Day Clicker Quizzes

- E-moment: 2.41
- Control: 2.27
E-moments made lecture more enjoyable.

Avg Score: 2.81 ± 0.15

1 = Strongly Agree
2 = Agree
3 = Neutral
4 = Disagree
5 = Strongly Disagree
The E-moments were an effective use of class time.

Avg Score: 2.66 ± 0.15

1 = Strongly Agree
2 = Agree
3 = Neutral
4 = Disagree
5 = Strongly Disagree
After an E-moment, I was more willing to be pay attention

Avg Score: 2.93 ± 0.13
E-moments allowed me to use my preferred method of learning.

E-moments allowed me to use my preferred method of learning.

Bars with unlike superscripts differ (P < .05)

1 = Strongly Agree
2 = Agree
3 = Neutral
4 = Disagree
5 = Strongly Disagree
Summary

✓ E-moments have a place
  ➢ Function to break up the monotony of lecture
  ➢ Function to make students think & synthesize
Summary

✓ Not for everyday
  ➢ May “turn-off” some students
    • Seemed to “elementary”
  ➢ Judicious selection
    • Type of E-moment related to content objective
Questions