Using Innovative Classroom Technologies for Student Engagement and Early Intervention: My Experience Using Top Hat

Mackenzie S. Burns, PhD
University of Nevada, Las Vegas
School of Community Health Sciences
Dept. of Environmental and Occupational Health
February 5, 2016
Introduction

- Mackenzie Burns, PhD
  - Professional staff and Part-Time Instructor
- Course introduction
  - PBH 435 / HED 635 Health Studies on Dangerous Drugs
- Top Hat
  - Interactive teaching platform
Dear Students,

I know when you’re texting in class. Seriously, no one looks down at their crotch and smiles.

Sincerely, Your Teacher

---

Digital Distractions?

Connected college students
Percentage of American adults in each group who use the Internet, have broadband at home, and connect wirelessly

Source: Pew Research Center’s Internet & American Life Project 2010 tracking surveys. All include landline and cell phone interviews. N for all adults=9,769; n for 18-24 year old non-students=717; n for four-year undergrad=340, n for grad students=112, n for community college students=164.

CANT USE CELL PHONE DURING CLASS
MISSES 60 MINUTES OF INSTAGRAM UPDATES
Digital Distractions?

Q1: On a typical school day, how often do you use a digital device during classes for non-classroom related activities such as texting, talking on a smart phone, emailing, surfing the Web, tweeting or social networking?

- Never: 7.93%
- 1 to 3 times: 34.72%
- 4 to 10 times: 26.79%
- 11 to 30 times: 15.73%
- More than 30 times: 14.82%

Q2: If you use a digital device during class for non-class purposes, please describe those purposes.

- Texting: 85.99%
- Social networking: 66.02%
- Email: 67.68%
- Surfing: 38.28%
- Check the time: 78.92%
- Games: 7.77%

Digital Distractions?

Potential Problems with Restricting Technology in the Classroom

- A restrictive policy might create a "professor versus technology" perception
- Prohibitive approaches could send the message to students that they are not trusted to take responsibility for their learning
- Some professors are frequent users of classroom technologies and it would be hard to cut their ties to technology in the classroom

Turning a Potential Distraction into a Tool for Engagement

Top Hat

* “a comprehensive teaching platform that helps professors like you easily create an interactive lecture experience”
  * https://tophat.com
* Requires students to subscribe and register to utilize Top Hat via the web or the app (available for iOS or Android)
  * Students are required to bring a web-enabled device (laptop, tablet, or smartphone) or a device capable of texting to class for participation

Key features that I utilized:
* Track attendance
* Interactive slideshow presentations
  * Deployed to students devices
* Student-response features
  * Real time discussions/polls, content questions, exam review “tournament”
https://app.tophat.com/login
Did not conduct a true experiment

However, when comparing PBH 435/HED 635 from Spring 2015 (before Top Hat) to Fall 2015 (with Top Hat):

- More students passed the course with an A or A- while Top Hat was in use
- No students failed the course while Top Hat was in use, while one student did fail in the previous semester
- Overall attendance was improved while Top Hat was in use
Student Opinions of Top Hat

“the system is organized and easy to use with quick grading results.”

“... it helps me stay focused in class.”

“...a great system to learn from because you also have access at home to go over the course if you may have missed something.”

“I enjoy it, because its an easier way of getting notes and fun way to interact in class.”

“its different and interactive...”

“I enjoy the questions asked during class because it keeps me engaged.”

“Awesome! I love when teachers incorporate electronics & other forms of learning rather than just traditional note taking!”

“I really like it, I feel more involved [sic] in the lecture.”

“...it adds variety to the lectures and keeps me attentive.”
Limitations

- Students have to have a web-enabled or text-capable device
- Students have to pay for the subscription
- Spotty Wi-Fi may hinder performance
- Takes instructor time to build student-response features into lectures
- Learning curve for instructor familiarity with features
- Requires buy-in from instructors for maximization of features
- If you do not integrate Top Hat with WebCampus, instructors will potentially be uploading materials to multiple sites and transferring grades between them
Conclusion

Innovative technology use in the classroom can increase student engagement

* Fosters active participation
* Speaks the students’ language
* Allows learning to be “un-tethered”
* Encourages the development of student-centered, interactive lessons

Questions?

Thank you!

mackenzie.burns@unlv.edu