

# iPad in a Science Teacher Community of Practice

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# iPad in ACU TQG

- Objective: Determine whether and how iPad can be used in secondary science classrooms.
- 20 HS chemistry teachers
- 18 MS science teachers
- 3G, 64 GB
- Reimbursed for educationally useful apps
- Received iPad training in June



# ACU TQG iPad Data

- ACU iPad Usage Survey
- Screen shots of all apps of every teacher
- 3G usage data (GB/month)
- Site visit interview
- Small group evaluator interviews



# ACU iPad Usage Survey

My primary method for	at work/school is:		at home is:		while traveling is:	
	checking email	Desktop	50	iPad	47	iPad
professional reading	iPad	47	iPad	76	iPad	91
recreational reading	iPad	56	iPad	65	iPad	76
research	Desktop	53	Laptop	59	iPad	88
reviewing & editing documents	Desktop	53	Laptop	76	iPad	59
note taking, sketching, etc.	iPad	47	iPad	65	iPad	82
online collaboration (blogging, wikis, discussions, etc.)	Desktop	38	iPad	53	iPad	79
social networking (facebook, twitter, etc)	iPad	53	iPad	59	iPad	74
educational media (news clips, etc.)	Desktop	38	iPad	53	iPad	82
social media (videos, music)	iPad	44	iPad	62	iPad	82
entertainment (games) at	iPad	56	iPad	71	iPad	85



# ACU iPad Usage Survey

- What do you believe is the biggest educational benefit of your iPad?
  - Easy, unfiltered internet access
  - “The portability and connectivity outside of the classroom is very beneficial. I use the iPad for recording data collected in the field, graphing in the field, and even GPS location in the field.”



# ACU iPad Usage Survey

- What do you believe is the biggest educational benefit of your iPad?
  - “Since I am from a rural school, I don't have access to materials that larger schools have, but the iPad helps to even up this situation.”



# ACU iPad Usage Survey

- What do you believe is the biggest obstacle to using your iPad?
  - No Flash
  - Difficult to project
  - Only one in classroom



# ACU iPad Usage Survey

- 85% - use it daily for ed. activities
- 100% - helped them be a more **active learner**
- 82% - improved the quality of their academic work
- 76% - improved productivity
- 85% - **increased interaction with peers**



# Apps Analysis

- 19 teachers studied (12 HS, 7 MS)
- 720 unique apps loaded
- Top 5 apps added
  - Kindle – 18
  - iBooks – 17
  - Numbers - 17
  - The Elements – 17
  - USA Today - 15



# Apps Analysis

- Top 14 added apps: productivity, science, news
- Facebook: #15
- 103 apps shared by 3 or more teachers



# Apps Analysis

- Top Science Apps
  - The Elements - 17
  - Molecules - 11
  - 3D Sun - 10
  - Science@VL - 10
  - Giant Timer - 8
  - GoSkyWatch - 8



# 3G Usage

- 13 HS teachers, 13 MS teachers
- 4 months, including 6 weeks during school

	MS	HS	All
Mean	1.25	1.61	1.43
Standard Deviation	1.04	1.66	
Max	3.80	6.10	
Min	0.13	0.16	



# Conclusions

- Significant tool for teachers
- Room for improvements
- Convenient access
- What happens with class/lab set?



AGU

# ACU's Mobile Learning Initiative

- iPhones or iPod Touches
  - 2008 all freshmen
  - 2009 all freshmen and sophomores
  - 2010 all students
- Several research projects involving mobile devices
- 2010 – iPad in TQG and four other projects

