

## FG06 – Going WILD While Staying Sane

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## What is WILD?

- WILD = Wandering Interactive Laboratory Demonstrations
- Supported by a grant from Hewlett-Packard, which supplied 40 tablet PCs and related hardware.
- PASCO Data Studio software and sensors used to let students perform data acquisition and analysis in and out of the classroom.

## Goals of WILD

- Get students out of the classroom, at least once in a while.
- Use data acquisition and analysis methods that aren't older than the students.
- Try to tie topics more to things students are likely to experience in "real life"

## Pitfalls for this sort of class

- Weather! Planning a curriculum for "wandering" is tricky when Lab 1 might be dangerously hot outside in Fall and frozen solid in Spring.
- Tablet/Laptop issues
  - Security
  - Battery Life
  - Student facility with hardware/software
  - Getting the lab reports to the instructor
  - Software Licensing

## Solutions – Weather

- Live someplace without weather extremes
- Absent that, write multiple activities for each lab, some of which can be done indoors, some outdoors, and leave it to instructors to decide what mix to use on a given day.

## Our Solutions – Technical

- Security: Locking cabinets and signout sheets.
- Battery life: Instructor training.
- Student abilities: Content-light intro lab.
- Lab reports: File-sharing system.
- Software: OpenOffice.org, DataStudio (not yet available for Linux)

## Student Reactions 1

- An online survey was given to the trial course (conceptual physics, Physical World Lab), 98 students responded.
  - 26 male, 72 female
  - 40 freshman, 28 sophomore, 18 junior, 12 senior
- Disagree/Mildly Disagree/Mildly Agree/Agree scale used.
- On next page, reporting will only show Agree and Disagree, drop “mildly” responses.

## Student Reactions 2 (N=98)

- Felt they learned a reasonable amount: 31 agree, 4 disagree
- Used computers like this before: 37 agree, 30 disagree
- Liked using computers to take data: 40 agree, 10 disagree
- Liked using computers to write reports: 49 agree, 13 disagree
- Computers easy to use for data collection: 30 agree, 13 disagree
- Computers easy to use for reports: 45 agree, 7 disagree
- Prefer more time to write reports outside class: 8 agree, 66 disagree
- Prefer more computer use in this class: 8 agree, 28 disagree
- Would like to use computers like this in other classes: 32 agree, 16 disagree

## Conclusions

- For a first pass, it seems to be working fairly well.
- Currently pausing in major development because of a pending NSF grant that could be used with the same course for content-based revisions.

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