A PATHWAY to Help with Physics Teaching

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www.physicspathway.org

Physics Teaching Web Advisory PATHWAY

- A new type of digital library for physics teaching
- Combining
  - CMU digital video library technology
  - KSU Physics Education expertise
  - Materials contributed by teachers
- Offering continuously improving web-based assistance and expertise for teachers of all levels

www.physicspathway.org

PATHWAY Components

- Synthetic Interviews
- Digital Video Library
- Connections to
  - National Science Education Standards
  - Research in Physics Education
  - Helpful Web sites

www.physicspathway.org

http://www.physicspathway.org

A New Look

- We are giving it a new front end
- And now the library.

www.physicspathway.org

informedia digital library

www.physicspathway.org
Right now

- Over 100 clips
- 20 from the Video Encyclopedia of Physics Demonstrations
- Not downloadable

Soon*

- Add Paul Hewitt Workshops
  - 8 lessons on teaching conceptually
  - 1 lesson on cartooning
- Add contributed videos
- Perhaps add some SI videos

Long-term

- Integrate the video library with the SI
- Many more videos on all topics
  - Contributed by users
  - Generated in-house?
  - Donated by companies?

A Synthetic Interview
Synthetic Interview Creation

Responses Available Now
- Global answers
- Answers to background questions
- Answers about tools
- Many kinematics answers
- We have answers to more than 1,000 questions!

How Do We Choose Questions?
- Began with "seed" questions and answers.
- Logged and analyzed 1400 user questions.
- Question categories emerged.
- Roughly 40 questions per topic.
- We selected more than 120 topics to start.
- This will cover the majority of a typical two-semester introductory physics course.

Who is asking questions?
- Pre- and In-service teachers
- Meeting attendees
- Workshop participants
- Others
  - Project staff
  - Testers
  - Random people?

What are they asking?
- 70% pedagogical
- 12% content
- 8.0% single word or concept
- 6.3% miscellaneous
- 2.0% demonstrations
- 1.4% activities
- 0.2% assessment
**Features to add**
- Literature info
- Associated media
- Science Standards
- Feedback links
- FAQ list
- Topics list

**Still to do**
- Expand
  - More Content
  - More Features
  - More personalities
- Does it work?
- How’s the coverage?
- Evaluation – is it useful and effective?
- Address size (speed) issue

**We would like your help**
- Suggest questions to ask the experienced teachers
- Try the system at www.physicspathway.org
- Give us feedback
  - Follow link on SI page
  - Fill out form now
  - Email badrian@phys.ksu.edu

**Questions or Comments?**
- Brian Adrian
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- www.physicspathway.org

**THANK YOU!**

**Session Evaluation**
- Please complete the short evaluation.
- Return to drop-off boxes no later than 12:30 PM on Saturday, October 21.
- Use blue or black pen or pencil.
- Fill in completely.
- Erase or “X” any marks you wish to change.