Experiences with Online Homework in a Design Class

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Online Homework Systems

- Commonly used in freshman classes
- Mastering physics, web assign, custom systems
- University of Tennessee Engineering Fundamentals system
- Used in large freshman engineering classes
- Proven to be very effective
- How would this work in a design class?
- Used in Sp 11 Masonry Design class (27 students)

Discussion Board

Partial credit for late homework

Parameters are randomly generated so each student has the same problem, but different numbers.

Students can type equations/notes here. Instructor can view notes when providing help.

Can embed links to resources, such as NCMA Tek Notes

Students can upload sketches or pictures. Can also place text work.

Small penalty (2%) for each wrong answer to encourage students to think about answer.

Parameters are randomly generated so each student has the same problem, but different numbers.

Try history can be reviewed to lose errors (e.g. sign error).

Clicking here takes students directly to our discussion board, and filters for only posts on this problem.

Built-in calculator

Can embed links to resources, such as NCMA Tek Notes

Try history can be reviewed to lose errors (e.g. sign error).

Link takes instructor directly to students homework
**Evaluation of Online Homework System**

- Students get immediate feedback; work problem until completed
- Discussion board enables entire class to see questions and answers
- Took just slightly longer to code online homework problems as to grade a set of 27 homeworks
- Only complaint from students was the tolerance on the problems (1%)
  - This can be changed in the system, and will be for next time

**Conclusions**

- Online homework system eliminated many of the administrative hassles of homework
- Instructor could focus on providing help instead of routine grading
- Positive experience for instructor and class