REFLECTIONS FROM FIRST TIME BLENDED PROGRAMMING INSTRUCTORS

TEACHING CHALLENGES AND LESSONS LEARNED!

SHORT AND – LAURA REID & KEMI OLA
THE NEW “BLENDDED” COURSE:

• Approachable Apps: A Gentle Introduction to Programming using JavaScript

• Blended:
  • 2 Hour Flipped Classroom EVERY OTHER WEEK
    • Groups of 3 worked on activities.
  • Lectures – all online
  • Labs – all online
  • Quizzes – all online
  • 3 Assignments – worked individually
GOAL OF THE COURSE

- To show students who had never written one line of code before that:
  - Coding is NOT magic
  - Coding is FUN!
  - You can code with just Notepad and a browser ➔ Nothing special needed!
TEACHING/BLENDED CHALLENGES:

1. Assessing People Online → Online Quizzes?

2. Drinking from the... of information about how to create a AWESOME Online Course → Go Agile!

3. The Nature of Our Material – Programming for people who have NEVER programmed before → Online caused some problems 😞

4. Flipped Classroom → Shy People?
LESSONS LEARNED – 1. ONLINE QUIZZES ARE GOOD NOT EVIL!

• “Online Quizzes” – What if students work together? Or find answers online?

• A “process” is still happening…students are still learning, so maybe think of the quiz as a learning tool rather than assessment tool (don’t make the quizzes worth much)

• “Cheating” is OKAY here!
LESSONS LEARNED – 2. GO “AGILE”

• For the first release of the course, go AGILE, all that matters is content!
• Worried to much about the process and not enough about the content
• Write down the course objectives and then DIVIDE and CONQUER!
LESSONS LEARNED – 2 ½ SHORT VIDEOS FOR THE LECTURES

- Again → DIVIDE and CONQUER!
- None of my videos were more than 15 minutes, this was HARD!
- Tell students how long each video is before they watch it.
- Each video should just address ONE topic/task/idea
- DO NOT JUST RECORD A 50 MINUTE LECTURE!
LES SONS LEARNED – 3. WE SHOULD HAVE HAD ONLINE CONSULTING TIME SLOTS

• Maybe not for all sciences but for computer science, if a student had this:

```java
if (x = 5) {
```

but should have had this:

```java
if (x == 5) {
```

this sort of mistake is often VERY hard to figure out by yourself if you have never programmed before…very easy to throw in the towel!
LESSONS LEARNED – 4. FLIPPED CLASSROOM, HAVE A: PRETEST WITH ONE OR TWO QUESTIONS

• When the flipped classroom worked it was AWESOME!

• Can’t solve shyness but we can help with experience. Next time we will have a pretest, before the course starts with questions like:
  1. Have you ever written one line of code before?
     a) YES
     b) NO
  2. Are you a good problem solver? Do you LOVE logic puzzles/problems?
     a) YES
     b) NO

• Then we will try to put at least one person who said YES to one of the questions above in each group of 3

From: http://sociallyawkwardmisfit.com/post/90716578322/sociallyawkwardmisfit-com
LESSONS LEARNED – ALLOW FOR CREATIVITY, MAKE IT FUN!

• We tried to use as many games as possible to teach concepts like:
  • Jeopardy
  • Hangman
  • Mad Libs ➔ One of the actual assignments submitted by one of our students
THANK YOU!

IN CLOSING, PLEASE ENJOY SOME COMPUTER SCIENCE HUMOUR→

From: xkcd.com