Motivating Students through Course Gamification and Blackboard Tools

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Comments from Students in UDM Course Evaluation

- I really enjoyed ... He **left the class in the hands of the students** and there is no better way to learn than to practice! ... I genuinely enjoyed coming to class!

- The thing that I most like about Dr. Wang's classes is that I always know what to expect. He is very consistent and doesn't try to trick his students. **Everything is always clear and concise**.

- Not a big achievement for you?

- **BIG FOR ME – A GREAT RELIEF after DRAMATIC CHANGES**

What was it?
What is it?

- EDU 4590/6000 Instructional Technology
- Traditional format:
  - Reading and discussion
  - Various, almost step-by-step, hands-on projects
- **Concern: "Old" students in new courses don't remember what they learned!**
- A new format starting Term I 2016-2017
  - Gamification
  - Autonomy

Gamification Defined

- **The application of gaming principles or components to course design**

  - Such as competition, freedom to fail, leaderboards, badges, level systems, and rewards.
  - May or may not involve the direct use of games

- To make learning happen to the younger generations, who are …

Gamification in Higher Education

- Just a few years.
- University of Michigan: GradeCraft
  - Beta stage as of Fall 2016
  - Contacted; not available to public

- Team?
- Cost?

- **Use what we have: Blackboard, IDS, and the principles of gamification**

Gameful Pedagogies of UM GradeCraft

- [Gameful Pedaogy by GradeCraft](http://gamefulpedagogy.com/faqs/) (http://gamefulpedagogy.com/faqs/)
  - Theoretical frameworks and sample syllabi
- Among which,
  - Provide students the room of **self-determination** including, but not restricted to, choices of tasks, choices of time to complete, and the freedom to fail.
  - Provide **instant feedback**.
  - Provide **grading transparency**.
  - Provide **rewards or badges** for sub-module excellence to keep students engaged.

Principles Translated into Practices in EDU 4590

- *Democracy in course design through discussion of syllabus.*
- *Providing choices.*
- *Peer review.*
- *Multiple submissions.*
- *Bonuses and badges.*
- *Deselection of 'running total' and the Use of Grade Predictor.*

Basic Components Assessed in EDU 4590

1. Attendance
2. Participation
3. Weekly reflection journal
4. Membership of Digital Scholarly Community
5. Teaching Statement 1 (General)
6. Teaching Statement 2 (Technology considered)
7. GLCA Online Teaching Video Observation Report
8. Reading discussion and presentation
9. Technology integration demonstration

(More details in the handout)

Deployment in Blackboard
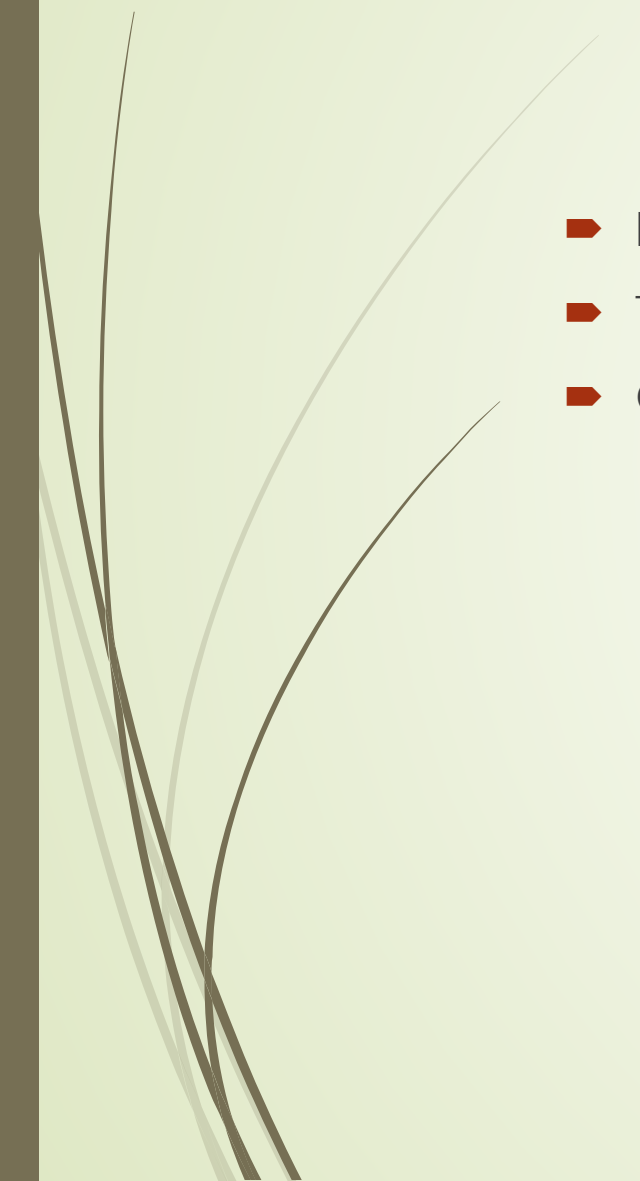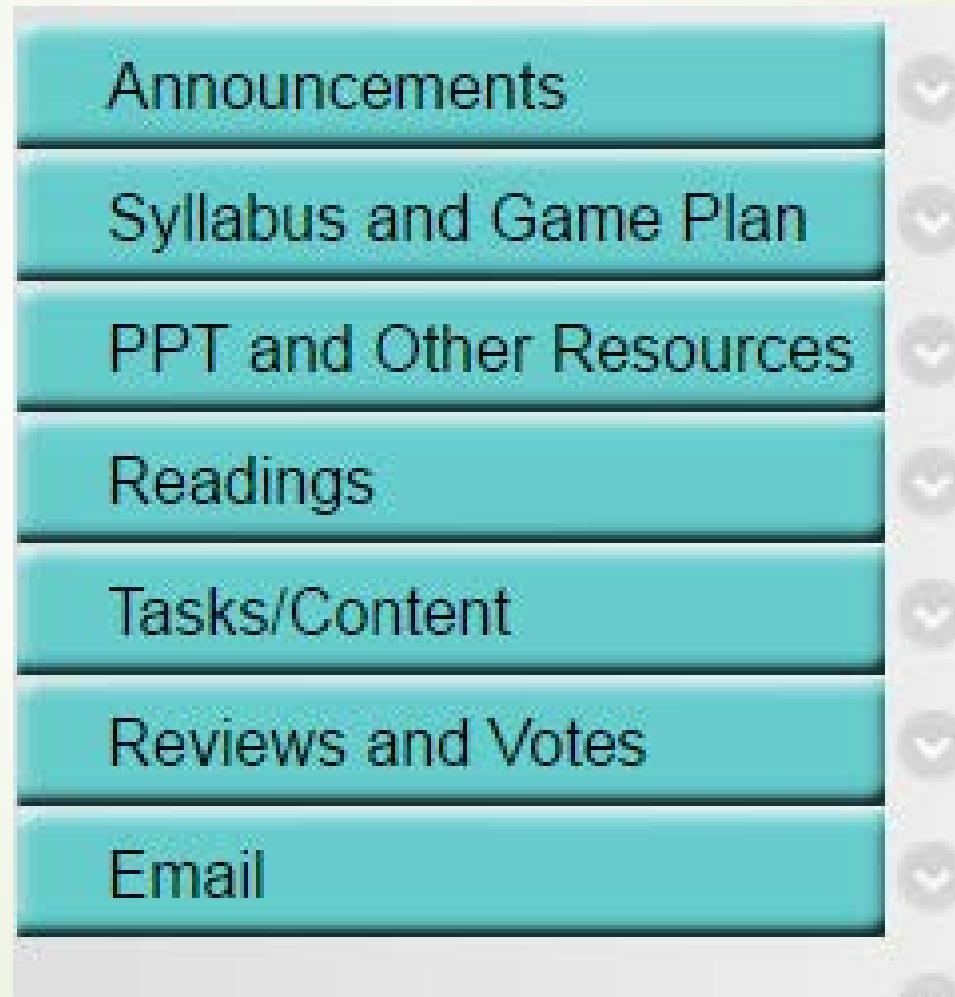
Walking around in the Blackboard Course Site

Folders to Emphasize in Blackboard Tour

- Game plan – a wiki platform where students schedule their presentations
- Readings – a library of reading materials
  - How to upload multiple files?
- Tasks/Content
  - Achievements/Badges: What, and how?
  - The need to set up the Grade Center as well.
- Reviews and Votes
  - SurveyMonkey

Grade Center

- Basic columns
- Total columns (A 'calculated total' is needed for every category of tasks)
- Calculate as running total?

Achievements

- Students' view of Achievements
  - Attendance
  - Reading discussion
  - T-Tasks
- Instructor's view of Achievements
- How to set up Achievements
  - Demonstration using Reading Discussion
    - None of the 3 presentations should be less than 6.5, and
    - The total for all 3 reading discussion should be 21.6 (90%) or higher
  - Challenges in designing progress bar due to choices in T-tasks (5 out of 7)
    - Latest thinking: creating 5 T-Totals, like T-Total1, T-Ttotal2, …?

Other types of adaptive release rules?

- Mark as Reviewed (Not used in this course)
- Dependence on other tasks
- E.g. Teaching Statement 2 can only be visible after the total of T-Tasks is above 80% (for a reason)
- E.g. Digital Community Membership link can be visible only after T4 is submitted and graded (for a reason)
- A try for fun: the hot spot
  - In practice: a bonus in addition to the mid-term survey
  - Potentially: a condition for adaptive release of another task

Peer Review through SurveyMonkey

- "Make" it free!

- Links available in Blackboard

- Allowing qualitative feedback

- Allowing multiple submissions

Design Considerations in SurveyMonkey (Participation as example)

- Students don't like ranking (They said it in the first week).
- Use Matrix/Rating Scale
  - Creating only one question
  - Listing all students under this one question
- Collect Responses
  - Multiple Responses on/off?
  - Copy/Paste the web link to the Blackboard site.

- A matter of 'copy' once the format is set for the first of a category of peer reviews

More SurveyMonkey design details in T-Tasks Peer Review

- Student names in rows

- Word scale and weigh in columns

The workflow continues – 'Analyze' and feedback to each students

- 'Analyze' in Survey Monkey
  - The numbers
  - The comments
- Transfer to Blackboard
  - Quick Comment
  - Or, Text Editor if Quick Comment is not spacious enough

The Final Survey – Regarding Democracy

- I have benefited from the democracy attempted by the instructor (4.57)
    - *Yes, I liked the structure and democracy of this class and I think it helped me learn more.*
- Democracy in teaching is **not necessary** because it's the instructor's responsibility and expertise to design courses for best results in learning. (1.86)
    - *Disagree. I think it should be student centered, and the students should be taken into consideration.*

The Final Survey – Regarding choices, flexibility, and opportunity to resubmit

- Four questions, all >4

- *YES! I liked that we could pick and choose, and there was a lot of options!*

The Final Survey – Regarding peer reviews

- I like the peer review process. (4.57)
- Peers' comments are helpful. (4.71)
- Peers' comments should contain constructive critiques than praises. (3.86)
  - *I have seen change, but I believe that the students should put whatever they want. If they feel there is a critique necessary to put, then that is fine to do so. If they want to just put praises, then that is a great confidence booster for their classmates.*
  - *Its also beneficial to receive praise and encouragement sometime. Although I do think there has been a change in grading since the midterm.*
- The instructor should participate in the review. (3.86)
  - *I think just a comment would be nice, but the grading system is fine!*
- The instructor's review score should carry more weight in the final score for a certain assignment or presentation. (2.57)
  - *ALL EQUAL.*

The Final Survey – Regarding game features

- I like the idea of badges and look forward to receiving … (4)
- Bonus for top 1 or 2 (4.14)
- I felt the gaming features (4)
- A sense of playfulness (4.14)
- There should be more competition (2.71)
- The gamification in this course is enough. No need to do more. (3.57)
- "Not calculating as a running total" makes me nervous. (4.43)
  - *Yes I agree. I think that it did make me nervous throughout.*
  - *Yes! But the final grade always makes me happy... if its good!*

Using a student's word

- *Yes! But the final grade always makes me happy... if its good!*

Our effort in improving teaching makes us happy ... if students feel good!

Q & A