

# Gamify courses with tools built into your LMS to enhance self-determined and active online learning

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## Introduction

- “Gamified” active learning can increase student engagement, create enthusiasm, provide instant feedback, and make more social connections than standard course settings.
- However, the costs to use an educational game design with efficient delivery of the game/course plan can be problematic.
- It is difficult to find a good fit between the games on the market and the learning objectives of course materials.

## Research Findings

- Subjects were Master of Public Health students enrolled in online Bio-Stats courses across two consecutive academic years (2015-2017) from a Midwestern university.
- There were two online surveys for this study including pre-test in the beginning of the semester and post-test at the end of the semester.
- A two-tailed independent *t* test revealed a significant difference ( $p < 0.001$ ) in the mean exam scores of two different sections of the Biostatistics course (a section with gamification vs. the other section without gamification).
- Student evaluations of the instructor (on items such as overall teaching ability, critical thinking and subject interest) were substantially higher in the section with gamification implementation than in the non-gamification implementation section.
- More than 65% of students want gamified activities to facilitate learning in other courses.
- About 70% of students agreed that gamified activities helped in reviewing and/or understanding concepts.
- Finally, 80% of students enjoyed gamified activities.

## Discussion & Take-Away Points

- Craft well-defined purpose and objectives.
- Gather feedback and opinions to improve for learning activity effectiveness from gamification.
- Keep in mind that not everyone is going to like gamification.
- Built a solid foundation for the course.
- Consider different platforms based on students’ needs.
- Explore different gamified activities and have some fun.

## Contact Information

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Examples of Gamification



**Handout**

**Gamify courses with tools built into your LMS to enhance self-determined and active online learning**

**Demo**

**Example Review Bingo in Blackboard Wiki**

**Review Bingo**

Created By Cheng-Chia B. Chen on Tuesday, May 16, 2017 4:11:41 PM CDT  
 last modified by Cheng-Chia B. Chen on Wednesday, October 11, 2017 9:14:25 AM CDT

You must type your answers and name (at the same time)!!!

|   |   |  |
|---|---|--|
| What is the definition of gamification?<br>Name:                                    | What are types of gamification?<br>Name:                          | List 3 elements of gamification.<br>Name:  |
| List 3 possible challenges when we use gamification in any online courses.<br>Name: | What is the title of this presentation?<br>Name:                  | Why gamification (e.g., student engagement)?<br>Name:  |
| What are the first names of presenters?<br>Name:                                    | Steps to create review bingo using the Blackboard Wikis.<br>Name: | What did the Blackboard collaboration tool did presenters integrate with the online Jeopardy Exam Review?<br>Name: |

**Example Review Bingo in Google Docs**

- Please go to [go.uis.edu/bingo](http://go.uis.edu/bingo)

**Open sample document**

- Please go to [go.uis.edu/sample](http://go.uis.edu/sample) and open the text file

## Steps to create bingo using a free collaboration tool

1. Go to docs.google.com (Note: you will need to login to your school email or your personal Gmail account)
2. To start a new document, click “+”
3. At the top of the page, click Untitled document, and enter a new title
4. Click anywhere in the page. Type up your instructions or copy and paste texts from the sample document
5. Use the toolbar to adjust your format
6. Click “Insert” and then “Table.” Select the number of columns and rows to create a table. In this case, it’s gonna be a 3x3 table.
7. Select the whole table.
8. At the top, click “Table” and then “Table properties.”
9. Under "Dimensions," enter the width and height you want for all the highlighted cells.
10. Under “Table alignment”, select “Center” and click “OK.”
11. In each cell, type up your question
12. Click “Share,” click “Advanced,” and click “Change” to select a group you want to share with. Then, choose “Can edit” to let your students can edit content.
13. Click “Save” to save your setting.
14. Copy the link from “Link to share (allow editing)” field. Click “Done” and distribute the link to all students.

Note: To see editing history, click on File -> Version History -> See Version History

Note: To control access, you can also invite people by entering the email under “Sharing setting”

| <b>Elements of Gamification</b>           | <b>Implementation of the Element</b>  |
|---|---|
| • Rules and Objectives                    | √ (The rules and objective posted under the instruction.)   |
| • Competition and Challenge               | √ (Students participated in the game competition.)  |
| • Feedback                                | √ (The feedback was given after students answered the questions.)   |
| • Rewards, (Bonus) Points, & Leaderboards | √ (Each selected-response question answered correctly is worth one bonus point. If a student has all 3 correct answers covered diagonally, across a row and vertically in a column, s/he will get a doubled award, which equals to 6 points [3 X 2 = 6]). |
| • Levels                                  | √ (Multiple difficulty levels can be achieved by creating easy, medium and hard questions.)   |
| • Story, Theme, and Role Playing          | N/A   |
| • Re-Playability                          | N/A   |