

The Role of Gamification in Designing an Online Course

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Online learning is an area that has expanded greatly over the past few years. Many teachers and universities are considering how to best provide their learners with quality online lessons. However, creating an online course is not quite as simple as taking classroom materials and uploading them on a classroom management system. There are several issues for consideration when designing a course: for example, issues of learner styles, motivation, and feedback. This paper looks at these issues in light of the relatively new concept of “gamification.” Gamification, quite simply, is taking elements of games and introducing them into non-game situations. While the idea of using games in the classroom has been with us as long as teachers have been teaching and students have been learning, it is still a new phenomenon in terms of research into how game elements can be used in non-game contexts. This article will introduce common game elements such as social graphs, levels, points, quests, and avatars to provide examples that help to illustrate how they can be built into an online course.

During the summer of 2012, I had the pleasure of taking a course online from UC San Diego on the subject of online learning and course design. The course helped me to realize that there are many issues to be considered in online learning. One issue that I had not previously considered is that of learner styles. While I have long considered learner and teacher differences in my own classroom, it somehow eluded me when considering an online environment. As discussed in course lectures and materials, the challenge of creating an online course that takes into account all learner styles can be difficult. The major problem is that of how to work with kinesthetic learners. Most of the other learning styles can be accommodated with a little foresight and planning. However, the idea of getting the learners involved physically in an online course requires more creative thinking. Furthermore, the issue of motivation is one that affects all learners in all learning situations. If the learner is intrinsically motivated, then the job is not so difficult, since the learner takes it upon herself to stay motivated for personal gain or satisfaction. However, learners that need to be extrinsically motivated require much more consideration in the makeup of the lessons and activities. All of these problems can be dealt with in various ways, but one way that is not a panacea, but can add a lot to an online class is “gamification” of the course.

Gamification is a relatively new concept in business and learning circles, but using games to motivate people to do something has been around for years. One of the most ubiquitous forms of using game elements for motivation is the simple use of points for credit card purchases. As the credit card holders spend money using their cards, they gain points that can be redeemed for free products and services. Credit card companies have become quite adept at informing the consumers that they only need so many more points to spend a night or two at a fabulous luxury hotel or have a wonderful dinner at a beautiful restaurant, and the list of rewards goes on and on. The point is that customers are motivated to use their credit cards

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to make purchases instead of cash or checks so that they can get those points. The credit card company gains from having more purchases made on their cards and getting payments from the companies that take payments on the cards. Many other companies, such as Nike and TV shows such as *Burn Notice*, use game techniques to induce consumers into visiting their websites and become more involved with the products.

Gamification became a popular term in the digital media back in 2008, but it did not become widespread until later in 2010 (Deterding et al., 2011). One of the most common definitions of gamification is “the use of game design elements in non-game contexts” (p.1). Thus, the point of gamification is not to create games for the target user, but to have game elements that help to motivate participants to complete tasks. An example of game elements is the social graph, where players can communicate with others about the game and compare how they are doing in relation to them. A further illustration is levels. Most good video games have levels that become progressively difficult, and they provide players with a feeling of satisfaction upon completion of a level and motivation to continue. Points, as mentioned above, are a major game element and can be extremely motivating. Quests are another element that are common in gaming, and the players must go out on a mission to find a hidden treasure or collect information or items that can then be used to help them to progress to the next level. Avatars are also often used in gaming for social game sites where the users are able to create alternative personalities and interact in ways that are far from the real-life norm. There are many other elements to gaming, but these five elements can be particularly useful in designing an online course.

First of all, the social graph can be useful in online courses because it allows the students to see how others are progressing through the course. The students can also contact each other through the social graph and join together to complete various “challenges.” For example, they might join together to find and learn about various research techniques in the *Finding Information in Education* course on the *Learning Space* open university website. After they find the information and share it, they take a quiz in which both their scores are averaged, thus further enforcing the social element, because they will work together to get the best score possible. As a further illustration, students can challenge each other if they have to do a competitive activity. For example, Student A might challenge B to a vocabulary contest using an online game such as Facebook’s Words With Friends. The instructor would be invited to the game so that the scores could be corroborated. The winner would receive a set number of points, and the loser would get a certain amount of points for participating. Finally, students could refer to the social graph to see how others are doing in their vocabulary study on freerice.com. Through the social graph, students will see that their peers have donated X amount of rice to charity through their vocabulary study, and they will become more motivated to contribute more rice to match their peers’ outputs, which means that they will study more vocabulary. This type of activity is doubly motivating because of the intrinsic motivation of wanting to contribute to society. Thus, the social graph can serve as a liaison between students and allow them to make friends and compare their progress with the others and motivate them to study more.

Levels can be useful for online courses because students can see their progress very clearly as they advance through stages to complete the course. Levels could be used in an essay-writing course. For example, level one would require that students be able to write various types of stand-alone paragraphs, such as narrative, persuasive and comparison/contrast. Level two would require students to write various types of introductory paragraphs. For example, the students would have to write introductions using an anecdote as the attention getter. The next assignment would require using a quotation, followed by a third

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assignment that necessitates the use of interesting facts. The background information and thesis would essentially remain the same for each assignment, but blending the background information with the specific types of attention getters would require a fair bit of rewriting and thought. The social graph could be used in conjunction with these types of assignments because the students could contact a peer through the social graph and trade assignments and do peer review. Once a student finishes all the assignments, then he or she can move on to the next level, which is writing body paragraphs. In this level, students would have three assignments to accomplish. Each assignment would be to write a body paragraph supporting the thesis used in the introductory paragraphs at the previous level. Once again, the students would use the social graph to access peer readers and compare their papers. The final level is the conclusion. This level would require writing several conclusions in which the closing techniques vary. For example, the first assignment would require a quotation, the second assignment would require a prediction, and the third assignment would require a recommendation.

Once the conclusion level is completed, the final paper is submitted to the teacher to be evaluated for the final paper grade. All of the assignments can be assigned points, and a person would not be able to pass until a certain number of points were attained. For example, level one would require five assignments with each assignment being valued at 10 points. It would take a minimum of 40 points to pass on to the next level, with no one assignment having a score of less than seven. The instructor marks each assignment as it is turned in and provides a score. If the student's scores are insufficient, the paragraph is rewritten and re-submitted until the qualifying score is attained. Thus, levels can be very useful for helping the students to see exactly what they need to do in order to proceed to the final goal, and it helps to break down a process into its component parts.

Points can be a major motivator for students, because points tell them exactly where they stand with their grades. Moreover, a variety of ways to gain points allows for learners with different learning styles to take advantage of what they do best. For example, assigning points for watching a video and reacting to it fits with the audio/visual learner. Giving students the chance to create a video and post it online fits with kinesthetic learners, and having a reading assignment with a written response suits those students who prefer to work with text. All of these assignments can be done for points, and the points can be used in a variety of ways. For example, if a student wants more points, she could do more peer reading/reactions of other students' work. Conversely, if a student feels uncomfortable doing peer reviews, she could use points that she has saved up doing other types of activities in order to buy a pass for a peer review assignment. If a teacher wants to encourage a competitive environment, then points can be assigned based on how well students perform certain tasks. The students can then use the social graph to check each other's standings. The teacher could take the competitive spirit a step further by putting the students into teams.

Quests, as mentioned previously, can be used to motivate students to work together or by themselves to explore beyond the scope of the course management system and find answers to questions or problems in the world of the internet or even possibly the real world. Quests can be used to provide a sense of adventure for the students and can also be used as extra credit for students who are struggling. Quests can be used, for example, in a research writing course to help students understand their topics better, or to help them develop their theses. As an illustration, a student may be interested in health, and perform a quest and play a game called ZamZee, which is based on the "Weight watchers model with middle-school students, pushing them to be more physically active by having them wear an activity monitor that is connected to a website where they can redeem points for rewards" (Penenberg, 2010 p.

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5). This type of quest serves three purposes. It helps the student to learn about proper health habits and it allows them to participate in an activity in which they can win awards, providing more motivation for them to succeed. Most importantly, it gives the students background information and insight into their research. Another example of a quest would be to have students perform first-hand research by going out and conducting interviews or surveys. The results of the quest can then be used as supporting evidence in their papers. Thus, quests can be used to get the students doing activities outside the classroom with the motivating factor of being able to advance a level or gain points for a grade or competition.

Finally, avatars can create an element of fun, face-saving, and training in the online classroom. Students can create images of how they would like to look, whether it is animal, cartoon, or one's own picture. Students can also create backgrounds that are different from their real world circumstances and upbringing. It also precludes students from being embarrassed about their peers seeing their point totals and other competitive scores and connecting them to a particular person. In other words, if a student does not give her true name and background, then there is no concern about whether other students will know who she is. Vokis are another type of avatar especially useful for online language classes. Students can use the voki to record their voices and alter them to match the avatar that they have chosen for themselves. Having their own avatars allows them to create a new personality that may be quite different than their real-life personality. Avatars also help students who have different learning styles and who are not comfortable with a traditional classroom style. Thus, Taylor (2010) writes, "Using more animated avatars helps students who feel disconnected from class discussions or who are more audio learners than visual learners process material and relate to the lesson more personally." Finally, avatars can be used for training students. Avatars can be designed or acted out by people trained to perform with a certain psychological profile. The students view a video of the avatar and respond to the avatar as if it were a real person. This is useful for online courses in psychology or negotiation skills or any type of human interaction endeavor. Once again, the idea of responding to a computer derived individual presents a gaming aspect, and students do not have to worry about saying the wrong thing to such an entity, and it allows them to be freer in their interactions. Feedback can be provided through a student-teacher discussion of the recorded conversation with the avatar to explore how the student could have reacted differently or more appropriately to the situation.

Thus, gamification can add variability to the online classroom, and this paper has explored only a few of the game elements that can be used in a course. As the technology continues to improve and becomes more powerful, we will see holographic avatars, which are far more life-like. We will also be able to perform quests that are more challenging and can totally immerse students in a virtual environment. Introducing game elements into a course is not easy and takes a fair bit of imagination, but there are many websites and books dedicated to gamification, and even more will come online as the phenomenon continues to expand over the next several years.

References

Deterding, S., Dixon D., Khaled, R., & Nacke, L. (2011 September 28-30). From Game Design Elements to Gamefulness: Defining "Gamification". *MindTrek '11*. Tampere, Finland.

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- Penenberg, A. (2010, December-January). How Video Games are Infiltrating—and Improving—Every Part of Our Lives. *Fast Company*. Retrieved from <http://www.fastcompany.com/magazine/151/december-2010-january-2010>
- Taylor, E. (2010, July 28). 10 Amazing Ways Avatars are Used in Education. [Web log post]. Retrieved from <http://www.accreditedonlinecolleges.com/blog/2010/10-amazing-ways-avatars-are-being-used-in-education/>