



Engaging Millennials Through Gamification

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ED3617

What would school look like if it "played" like a video game? Faculty at Boise State University created an experimental game-based learning management system and have been conducting and researching classes built on the principles of quest-based learning (QBL) using experiences points, badges, achievements, leveling, and student choice. The presentation demonstrates tools, pedagogy, and results of more than 2 years of design-based research into student success and satisfaction in QBL.

Learning Objectives

At the end of this class, you will be able to:

Learning Objective 1 - Describe a quest-based approach for adding gamification to a classroom

Learning Objective 2 - Apply new tools and pedagogy to add gamification to a classroom

Learning Objective 3 - Produce empirical data that supports improved student outcomes through this brand of game-based learning

Learning Objective 4 Introduce and describe potential pedagogical adoption strategies, both conceptual and those currently in practice

About the Speaker



Serving as a Clinical Assistant Professor in the Department of Educational Technology at Boise State University, Chris is actively piloting and developing groundbreaking alternative approaches to delivering and tracking learning. With co-inventor Dr. Lisa Dawley, Chris created 3D GameLab, a game-based/quest-based learning management system. His classroom serves as a unique game-based technology and pedagogy lab where this new and innovative practice is producing exciting results.

At the university, Chris specializes in preparing pre-service teachers in methods and applications of technology integration in the classroom. In addition to instilling fundamental skills, Chris focuses on the use, adaptation, and implementation of emerging technologies in teacher education including gaming, mobile communication devices, portable media players, social networking tools, and virtual worlds.

Learning Objective 1: Describe a quest-based approach for adding gamification to a classroom

Game-Based Feedback as a Motivator for Students

One of the motivating characteristics of video games is found in the copious amount of feedback generated by the players actions in the course of gameplay (Chatfield, 2010; Gee, 2006). The feedback itself is highly rewarding.

Game-based Feedback (GBF) applied to education can have a positive effect on student motivation and engagement. As stated by Charles, Charles, McNeill, Bustard, & Black (2010), "A crucial incentive for engagement with the learning process is *affirmation*" (p. 639). Affirmation is described as a condition by which the student recognizes that they are making measurable progress. When there is a failure to deliver this feedback, confident student engagement suffers.

Charles et al., (2010) described the implementation of the GBF system at the University of Ulster to test the hypotheses of the engaging characteristics of various forms of game-based feedback to an educational experience. They assigned points to specific activities and challenges (both voluntary and non-voluntary) within a module like a computer game and built student profiles similar to popular video game system player profiles that provided detailed feedback on a student's engagement with their modules. Response to this system by students was mixed. A majority of students appeared to engage with the system while a small number objected to the competitive comparisons to their peers and the feedback (Charles et al., 2010). The authors suggest that GBF may be more beneficial to weaker students and those that are more capable or confident. They suggested that this is due to the need for more detailed and ongoing feedback. They conclude that feedback plays an important role in empowering a learner to establish and understand their educational identity (Charles et al., 2010). The GBF approach can further enhance educational feedback and student engagement. The implications are that prompt and meaningful feedback may be attractive to students and the proposed study may provide evidence of its role in attractive quest-based learning.

The literature supporting best practices in game design are instructive. McMahan (2003) describes immersion, engagement, and presence as three critical characteristics in game level design. As levels are described as goal-oriented units of the larger game, levels and quests, as units of measurement and game progress can be used interchangeably for the purposes of attraction. Immersion is described as the conditions by which the player can be "caught up in the story" (McMahan, 2003, p. 68) or conditions of the game. Poole (2000) posits that immersion is, in fact, the videogame manifestation of *flow* as described by psychologist Mihaly Csikszentmihalyi which can be a Zen[-like] experience" (Poole, 2000, p.168) where actions and decisions flow according to internal logic, almost automatically. Immersion can be created by a complex or engaging narrative, a story and its characters, patterns of play that demand attention, intriguing visuals, or any characteristics that draw a player in (McMahon, 2003) but does not need to be a photorealistic three-dimensional digital world.

Engagement, as a product of videogame level or quest design, can be described as attraction to characteristics supporting the gameplay but not necessarily directly linked to it (McMahan, 2003). Engagement is further described as the emotional investments made in the gameplay (Koster, 2003; McMahan, 2003) that supersede the apparent irrationality of the play. Players remain engaged because

they have a vested interest in the outcome. This is valuable in educational quest design, because game principles can support engagement and activity by adding layers that create or add value or meaning to activities that otherwise might not hold meaning.

Presence is described as the desire to attend to a type of gameplay or environment. A player's presence within such an environment is an indicator of both its immersion and engagement. Designing quests with these characteristics could be an effective strategy for long-term learner engagement and success.

Summarizing the literature in this section, game-play styles can be aligned with neurobiological interactions. With tailored game-based feedback, strong neural stimuli from play and learning can trigger reward-seeking behaviors. This suggests play and game constructs are a powerful tool for student motivation. The chemical and hormone interactions, which reward the brain and pleasure center with dopamine and other neurotransmitters, thus may also lead to categories of motivational engagement by players that can be studied for relationships with selection, completion, and rating data in the 3D Game Lab context.

Game-Based Learning

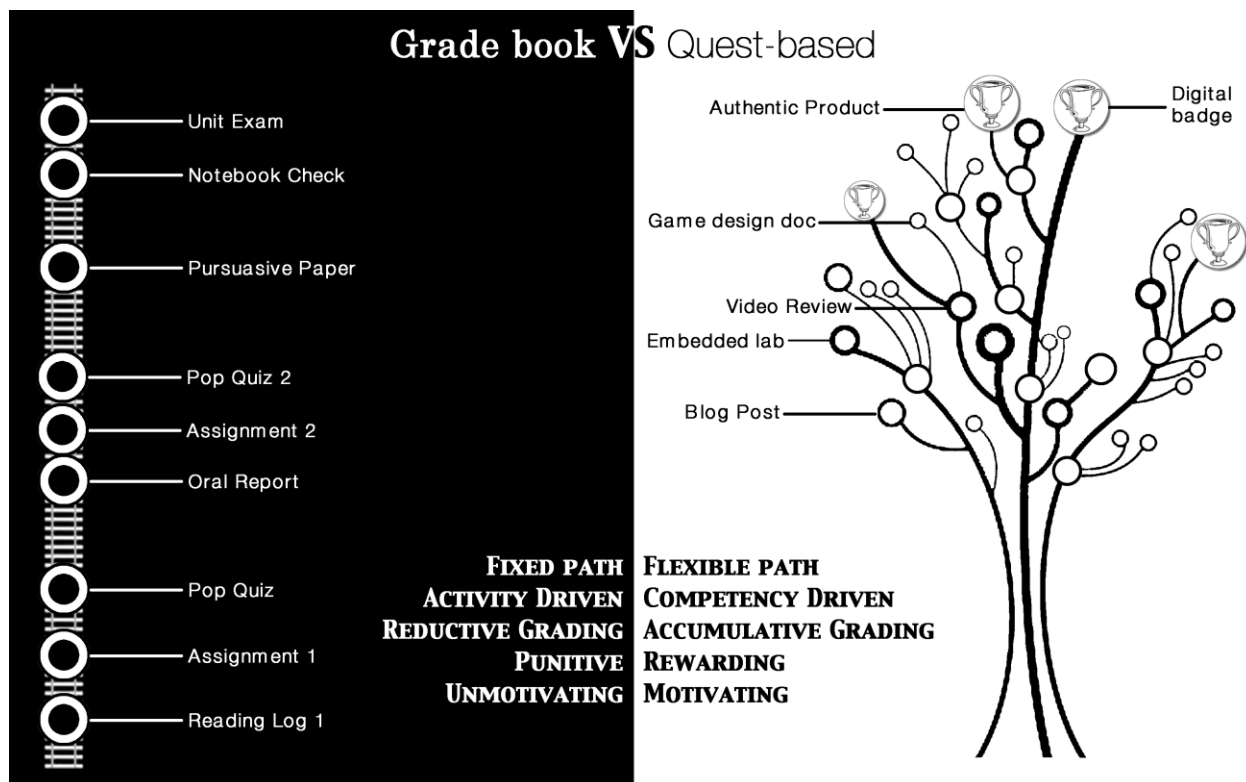
Gaming environments allow students to access learning in effective ways not afforded by traditional Web-based distance education, specifically active, applied experiential learning that engages physical, emotional, and cognitive resources of the learner. Creative teachers that employ experiential learning in game-based environments capitalize on the application of concepts through an overt or active exchange (Weusijana, Svihla, Gawel, & Bransford, 2009). Through concrete, physical, emotional, and cognitively active play, users create their own experiences and construct their own knowledge.

Effective virtual and game-based environments for learning also support multiple means for students and instructors to interact with one another (Gratch & Kelly, 2009). Students in highly social settings often serve as both creators and consumers of the collective knowledge that emerges (Bronack, Riedl, & Tashner, 2006). In addition, recognizing successful behaviors or strategies from those they perceive as successful, learners in a social context learn through shared activity (Bronack et al., 2006). Tools of socialization and interaction allow participants to develop relationships with others, participate in complex social hierarchies, and develop robust digital communities (Gratch & Kelly, 2009). Learning can occur as a result of one's own actions or by observing the results of the actions of others.

Educational games, as well as off-the-shelf "serious games" in an educational setting, have a risen in popularity and practice over the last decade (Gee, 2005; Squire, 2003). A common belief exists that the combination of deliberate educational content infused with game-like elements serve to make existing curriculum more engaging (Barab et al., 2009). Research has shown that games can be effectively employed not only as tools of engagement (Annetta, Minogue, Holmes, & Cheng, 2009; Hoffman & Nadelson, 2009) but to quantifiably improve student learning and understanding. The literature, however, is devoid of research focused on a purely game-based classroom. While empirical studies show that games and game-based learning can have a significant impact on engagement and/or learning in individual units, subjects, or lessons, no published research exists showing the effect of a fully game-based approach to classroom instruction.

Quest-Based Learning

The path through the narrative of an educational course is often a fixed *pearl chain* (Aarseth, 2004) of activities, assignments, quizzes, and tests. Traditionally, the course work is delivered along a prescribed timeline, with fixed values and deliverables, and often lacks flexibility or opportunity for improvisation. Conversely, the most popular and successful games offer myriad choices within rich and compelling narratives that inspire players to push forward (Sullivan, Mateas, Wardrip-Fruin, 2009). The following literature focuses on the characteristics of activities and assessments delivered in a form called *quests*. Quests are basic units of game-based progress and interaction that parallel those of educational content in that they are units of activity within the larger scope of the curriculum (Barab & Dede, 2007). Exploration of the research and thought around what game researchers and designers consider “good gameplay” (Squire, 2003) serves to inform and support an emerging framework for quest-based learning. Investigation of the structure, taxonomy, and organization of game-based quests help inform the generation of theory toward quest-based education.



Choice as a Core Component

Good gameplay is a series or collection of interesting choices (Squire, 2003). By this definition, *good* gameplay is more meaningful, enjoyable, and sustaining through a series of interesting and worthwhile opportunities (Ashmore & Nitsche, 2007). Stagnant or uninspiring gameplay, by contrast, simply provides a series of tasks to perform (Sullivan et al., 2009).

In the context of games, a quest represents a goal-oriented search through which the player tries to collect, retrieve, or achieve something of value (Howard, 2008; Sullivan et al., 2009). Many games, including role-playing games (RPGs), use quests to direct a player through gameplay. Multiple quests often form the building blocks of the larger game narrative and denote progress to a satisfying end or

completion of the game (Ashmore & Nitsche, 2007). Additional definitions or derivations commonly found in literature describe these gaming units as missions, events, activities, goals, and challenges. Game-based quests, as opposed to educational units, frequently include elements of choice.

Quest Definitions and the Structure of Quests

Quests as “dramatized searches that can follow certain themes or patterns” (Ashmore & Nische, 2007, p. 504) fit within the narrative of the game world and are often aligned with a character’s personal, religious, or psychological journey. Quests typically contain an objective, task, and success/failure conditions (Ashmore & Nitsche, 2007). A quest from the fantasy-based MMORPG World of Warcraft™ demonstrates these three components. In the quest *A Fowl Shortage*, the objective is to assist Daryl Riknussun, a non-player character (NPC), to prepare a “cock-a-leekie soup.” The task is to collect 6 *Dun Morogh Chickens* from a nearby section of town. The success/failure conditions are tied to the player’s ability to collect the correct number of chickens and return to the NPC that delivered the quest.

In some quests, the task may be an ordered or fixed series of steps that allow the player to achieve the winning condition. Other quests offer a more open set of conditions and choices that might still allow the player to meet the objective. Likewise, the success/failure conditions may be more stringent and include variables like time, that the player remain undetected, etc. As the game progresses, quests typically become larger, more complex, difficult, and require more knowledge, skill, or ability. Within the immersive world of the game, quests closely align with the narrative or story associated with it (Ashmore & Nitsche, 2007). As game players are participating as explicit characters within the game, or at least an alternate identity, the narrative becomes an important component of the quest.

Sullivan et al. (2009) described two distinct quest structures: task-based and goal-based. Task-based quests include an inflexible list of tasks designed to be completed in a specific order. The objective has a predetermined list of tasks necessary to meet it. For example, in order to rescue the princess, the player must find the sword, build the boat, cross the moat, and climb the tower. The next step in the process is simply not available until the proceeding task is met. This can be frustrating for players when they visualize a more effective solution, but game mechanics will not allow them to complete it. Goal-based quests establish the objective with a clear end point and the player chooses how to complete it. True goal-based quest design allows for interesting player choice with multiple ways to fulfill the quest with no one solution being obviously better than others.

Player frustration occurs when a quest appears goal-based but requires an arbitrary, predetermined solution. Suggesting a possible direction for effective quest-based design, Sullivan et al. (2009) indicated that most quests are a fixed list of tasks and do not adjust based on what the player has done. This is evidenced by the number of combat quests at the core of most video games because they are relatively easy to regulate and every player can do them.

Transposing the characteristics of game-based quests to that of quest design for learning, the characteristics of objective, tasks, and success/failure conditions as highlighted by Ashmore & Nitsche (2007) propose a parallel design consideration. While not new to instructional design, these characteristics overlaid with a rich narrative and infused with additional considerations advance the idea of a unique and engaging quest-based unit of instruction.

Learning Objective 2 - Apply new tools and pedagogy to add gamification to a classroom

3d GameLab

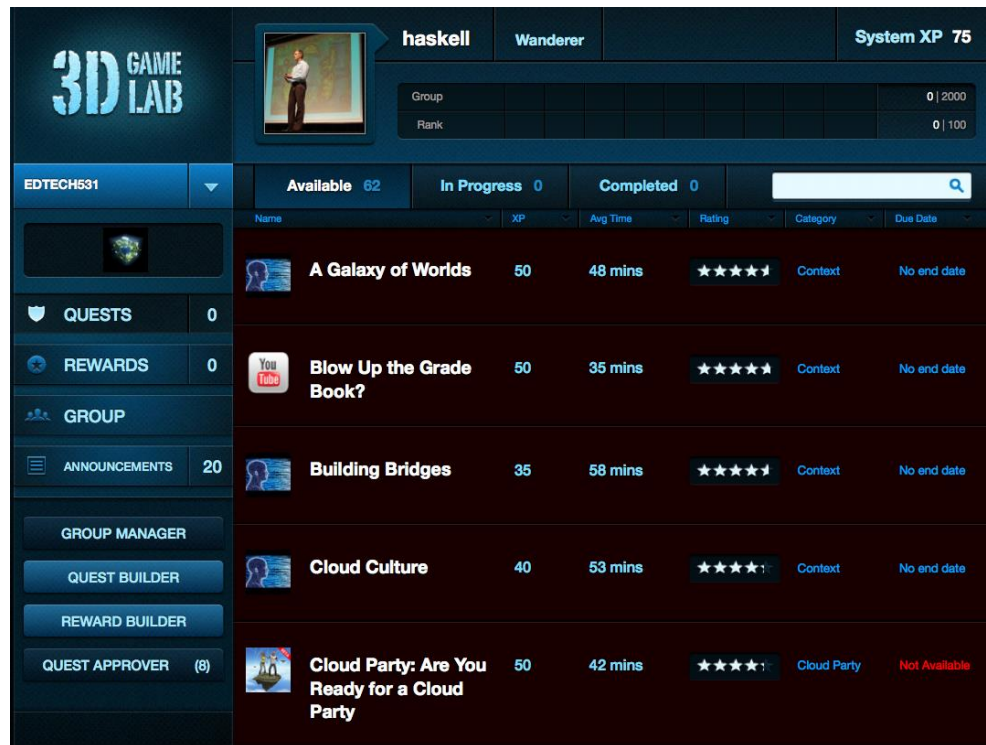
Students learn more, experience more academic success, and are generally more satisfied with the educational experience when motivated and engaged in the curriculum. Video games and their characteristics have been found to motivate students, and in many cases improve academic performance, through a number of systems and tools native to gaming.

One of these new and emerging approaches to game-based educational design is quest-based learning. Much like the video game structures on which it is predicated, quest-based approaches can be organized around learner choice where participants choose from pools of individual quests (interactions, activities, missions, etc.) that accumulate experience points to satisfy the needs of the standards and curriculum. This highly personalized and tailored approach shows promise as a compelling and powerful tool for learning and engagement. These approaches are especially compelling because game-based and quest-based learning and their unique pedagogies imply a practice somewhere between the serious work of education and the playful exploits of gaming.

The problem, if you will, is that we know very little about what constitutes effective educational quest design. Currently, the characteristics of attractive quest-based learning design represent a gap in our knowledge. Identifying attractive or compelling characteristics can inform teachers and instructional designers. I'd like to show you one way that we have used these principles to create what we think is a "more affective student-centered approach." We were able to embrace the systems and tools they understand, offer choice, change due dates, and create a flexible learning environment. Let me tell you about it.

We developed a game-engine, for learning. Simply, you score points, gain rank, complete quests and missions, get badges and achievements, for learning and doing.

I began using the tool as the primary learning management interface in my EDTECH-202 course in the fall of 2010. I took a curriculum that had largely been built in modules, and converted those readings, videos, and activities into quests. Students had the opportunity to choose activities they were interested in rather than have that decided for them. The system then records the progress against the standards.



Quests and Quest Selection

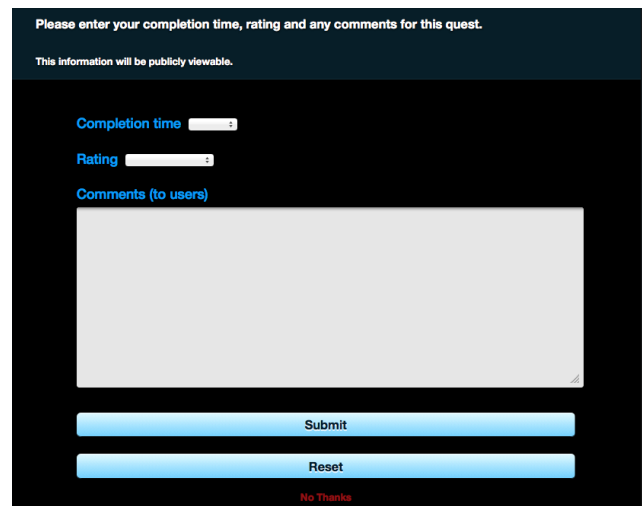
Since choice is at the core of quest-based and game-based pedagogy, users begin by selecting the activities that they want to complete. Since students begin the course at zero and work toward their winning condition, quest each have an associated experience point value or XP. They can sort available quests by XP, average completion time (this is an average determined by the user), a five-star user rating, category, or even due date. Then you'll notice you can even search available quests for specific tags like "game" or "YouTube." If they have greater interest in one of these activities they can select it to expand and get more detail. They even have the ability to see public user comments to help them make their decision about which activities to consider. We believe that this ability opens a new opportunity for dialogue about the effectiveness not of teachers, but individual instructional activities. Low rated quests will help instructors and quest designers modify, improve, or rework quests during the class.

The student can then choose to participate in the quest. All of the information necessary to complete the activity can be placed in the quest itself. Text, images, and media can be embedded to create an individual self-contained learning activity. This can be as simple and boring as "read chapter 3 and answer the questions" or as robust and creative as we choose.

Quest Completion and Rating

Once they have finished the activity and are ready to submit it, they click “complete.” This brings up a field with specific submission instructions, a comments field to the instructor, and the ability to upload Files and attachments. In time, this WYSIWYG will allow them to also leave audio and video responses as a means of submitting completed quests.

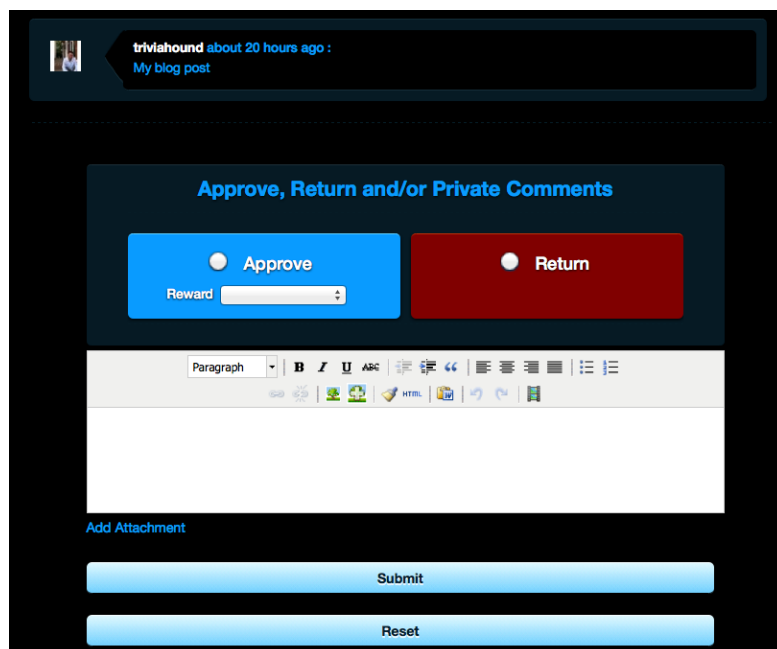
Once they have submitted the quest, they get the opportunity to add their voice to the process. They can indicate their completion time and rating as well as leave comments to other users. The teacher can moderate these comments to prevent inappropriate public comments being left.



Approval Process

Approving quests is done by the teacher or other qualified assistant. One of the fundamental shifts in the pedagogy of quest-based learning is the “grading” of the assignment. In my teaching, the completed quest either meets or exceeds the expectations or it doesn’t. It’s the Yoda method, “Only do or do not, there is not try.”

There is no B-. Do we really expect a B- to change a student behavior? Do we even understand the behavior we believe this punishment is trying to change? How many poor grade are we often willing to give a student before we believe the lesson of “try harder” has been learned.



Like a video game, failure becomes an instructional tool. If something needs addressed in the completed activity, comments are made and the quest is returned to the students “in progress” quests. This allows for as many iterations as necessary for the students to demonstrate completion of the principle or competency. Rather than accepting something that the student is not proud of and the teacher is not satisfied with, the tool allows us to engage in additional conversation toward completion. Since we are not held to the arbitrary bounds of grade book and due date, this exchange can take as long as necessary to ensure the student meets the competency.

If a completed quest exceeds

expectations and additional reward can be added. Awards can be created by teachers and awarded multiple times. A student can receive a 10 XP bonus, for example, because of excellent writing, grammar, creativity, or any other characteristic that teachers want to reward. Those additional awards can be made visible to the student's friends as well.

Once the quest is approved, the experience points are reflected in the student's progress bar.

Perhaps the most compelling part of the system for me is that we are building a massive free database of learning material. Any teacher in the system can search for quests created by any other user. All content can be either automatically licensed to Creative Commons or set to private. Users can clone quests into their own classes and groups. If you need a quest about integers that meets the common core standards, and search for it in the system, clone it, and deliver it to your students.

Heading 4 (section sub-heading)

Learning Objective 3 - Produce empirical data that supports improved student outcomes through this brand of game-based learning

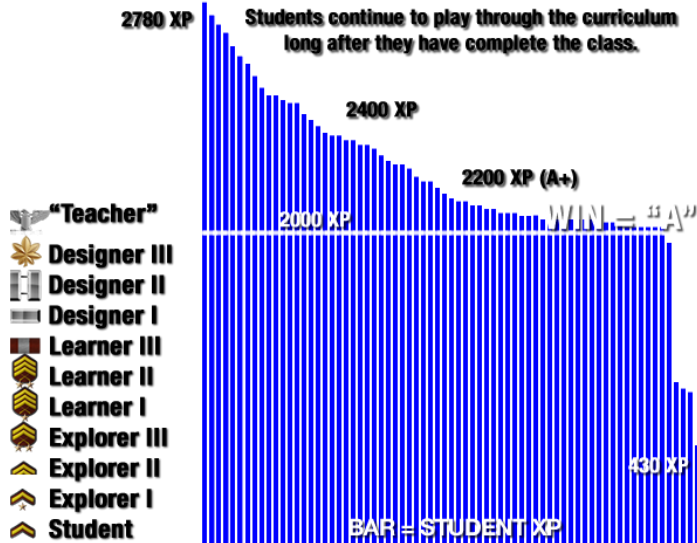
Research

In 2010, professors at Boise State University Dr. Lisa Dawley and Dr. Chris Haskell built a game-based learning management platform to begin testing the quest-based learning approach. Their tool, 3D Game Lab, was employed in just a handful of college and middle school classes initially. Since that time, the tool has been made available to over 500 "beta-teachers" and thousands of their students in over 10 countries. As a web-based learning management platform, 3D GameLab collects thousands of points of data for each user including click data from interactions. Through data mining, this data has been used to describe the experience, interactions, and outcomes of quest-based learning.

In a key study of student success in a pre-service teacher course, I began using the tool as the primary learning management interface in my EDTECH-202 course in the fall of 2010. I took a curriculum that had largely been built in modules, and converted those readings, videos, and activities into quests. Students had the opportunity to choose activities they were interested in rather than have that decided for them.

Higher grades achieved overall. A study of preservice teacher candidates engaged in a digital age teaching skills curriculum are shown to be highly successful using the quest-based learning approach (Haskell, 2012). 93% of students (N=97) using this approach reached the winning condition

BEYOND EXPECTATION



condition, described as receiving a course grade of "A". The remainder of students either received an F for failing to attend or an incomplete (I), later completing the course.

In this approach, average completion time was reduced from 16 weeks to 12 ½ weeks with one student completing in just four weeks. Students reported the lack of due dates and freedom to progress in the curriculum as motivating factors.

Persistence in questing and completing more work on average. Despite being able to walk away from the class once they had completed the requirements

(2000 experience points + a completed portfolio), students continued playing through the curriculum. The figure below shows student activity, and XP, relative to the winning condition (white line). Not only did the vast majority of students reach the winning condition, many exceeded expectations. As a group, the class averaged nearly twice as many completed activities as previous, module-based iterations of the course.

Conclusion:

Students engaged in quest based learning benefit from choice in curricular interactions. They are more motivated to engage in classwork, complete nearly twice as much of it, have more success meeting more of the class standards and expectations. Once finished with required classwork, many students in the quest-based approach continue to *play* through the curriculum. It is a promising approach for digital age teaching and learning as well as a potential long term solution for student engagement and success. Continued research at Boise State through partners like Gogo Labs will continue to improve our understanding of QBL.

Currently, there are about 200 teachers and 10,000 students using our system. Last year, we open our doors to a handful of original beta users. They were able to bring in about 60 of their seats each test the system. In March, we're going to open the doors again. Like before, we'll run a three-week camp that helps teach people how to use the system, create meaningful quest-based learning, and allow them to "play" with other users.

If you or some of your colleagues are interested in seeing in this next round of the users, participating in our camp, and getting access to the system, I'd be happy to share with you the details.

Learning Objective 4: Introduce and describe potential pedagogical adoption strategies, both conceptual and those currently in practice

Badges, Achievements and Awards

There is no unified description of game-based reward terminology. While some consistencies exist across platforms, these terms are not absolute. For the purposes of understanding how they work in 3-D game will have, we will introduce them briefly now.

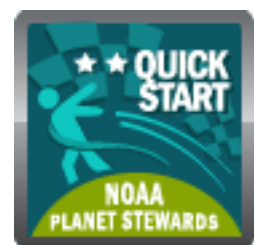


Badges are more often associated with groups of completed quests. This can be used to promote activities and quests in groupings as well as create a way of tracking certain mandatory course requirements. For example, the winning condition for the class could be 2000 experience points +3 badges. These badges could contain the required activities for the course. We feel that this gives teachers and designers the flexibility to allow for choice but still include certain fixed deliverables and outcomes. **It will not be**

necessary for you to create any additional badges.

Achievements are built around behaviors this system can look for. Examples include...

- Complete five quests in five days
- rate 20 quests
- complete 10 quests
- accept five quests in one day, etc.



This can allow you to promote certain successful behaviors within the class by creating achievements associated with them. The difference between achievements and awards is twofold. First, awards are manually given and achievements can be preset. Second, earning an achievement is entirely within the view of the student. They are able to review the achievement on the REWARDS screen and see which elements are left to complete.



These are tools that are especially beneficial to create good habits in students. They can promote a fast start, support of classmates, major benchmarks in progress, or participation within the classroom community. For some, having these achievements will motivate them to be more active and earning them will be exciting and fulfilling.

What's great about achievements and badges is that the system looks for them.

Awards can be created individually by teachers to reward behaviors that they may witness. They can be given without the completion of a quest or in association with one. "I saw you helping another student today, you get the HELPING HANDS award."

These are the equivalent of the "gold star" or stickers. They are an immediate, unexpected marker of success. They can be used to reward good grammar, punctuation, perfect spelling, creative ideas, collaboration, improvement, humor, or any other characteristic that teacher would like to promote. By creating awards that reflect these classroom values, teachers can promote them within the culture.

Most of these rewards will be built in to the curriculum you clone. But, you can always make your own. Creating unique rewards and achievements will make your group more engaging and exciting for your students. Below you will find a short list of suggestions of different ways these rewards can be utilized.

- Link a reward to a virtual or physical object the student could earn. An extra 10 minutes of lunch, a digital copy of the template for an upcoming activity, or other REAL goods may increase the motivation to achieve it.
- Creating BONUS Quests linked to a reward could be fun. Since REWARD prerequisites can be set for quests, completing a badge or achievement could unlock an especially fun or engaging group of activities for those students.
- Again, using the idea of REWARD prerequisites, entire areas of curriculum (perhaps those designed for advanced students) could be made available in the system and granted by delivering that award. (i.e. the red Ruby could unlock a special "advanced" version of similar quests.)
- MYSTERY awards might be engaging or motivating for students as well.

What ever engaging ideas you might have, system REWARDS can support student motivation and curricular organization.

Organization, locks, keys, and branching architecture

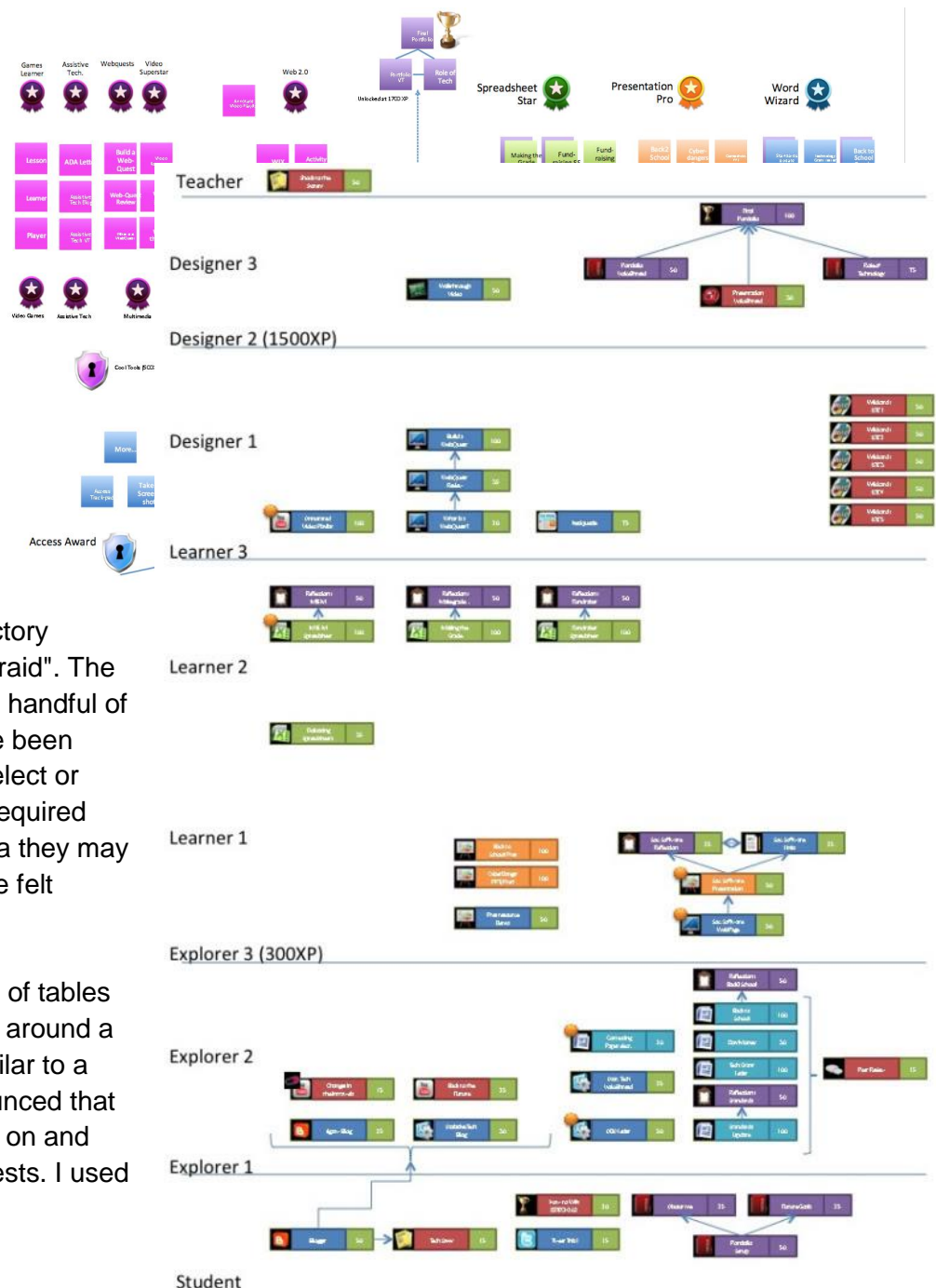
My Ed Tech 202 class at the University has over 200 students in a single group. I am experimenting with the system in an authentic way with real students. Eventually, we would like to have a visual organizer to handle the heavy lifting of prerequisites and other organizational elements. In an effort to start the thinking about what this might look like, I created this example of my 202 course.

This is the actual layout for the course I'm teaching this semester. I'm interested to hear what you think.

Raids and group work

This year I have focused on a handful of students who had not completed some of the earlier, more introductory quests in a focused "raid". The idea was to identify a handful of quests that may have been difficult for them to select or attend to, ones that required knowledge or schema they may not have had, or have felt comfortable with.

I organized a handful of tables in my classroom with around a 40 inch monitor (similar to a teamspot) and announced that we would be working on and completing these quests. I used



my laptop as the demo computer. I encourage everyone who had not yet completed them to work with me and we would "workshop" our way through them so that everybody would have the opportunity to get completed. The remainder of the class continued to work on quests that they were interested in.

It was very popular. We were able to complete about three quests in 30 minutes. Students who had been stagnant were able to move through these elements as a group, with a guide. It resulted in a boost of confidence and a little momentum.

I was able to identify who might need this assistance by sorting my group by XP and then clicking on each of their player cards to see which quests they had completed.

I'd like it if we could all share this some of the "pedagogical decisions" being made in the quest-based classroom in our guild site more often.

From a recent blog about teaching using this approach.

I'm always so inspired when I have the opportunity to sit down and read the journal entries of the amazing educators we get to bump shoulders with in this guild. You and your colleagues are truly brilliant, inspired professionals who want to reach your students. I would imagine that you often feel the way I do: proud, excited, and humbled.

Through reading many of your comments, I gather a mixture of excitement and concern about everything associated with creating or converting what seems like a massive curriculum into quests. Most are overflowing with enthusiasm about the impact that the experience will have on their students, and rightly so. The concern becomes the organization and planning necessary to convert a curriculum into its flexible elements.

If we, using our best pop-psychologists chaise lounge, analyze the root of our distress (no, it's not our mother) we find that pushing back from the conventions of what a teacher IS becomes hard to do. What I mean is all of us, you and I, struggle with the need to be in complete control of what is taught and learned. Upon detailed examination, we're able to recognize that learning management, direction, and to a large extent teaching, is moving away from a wholly didactic and dictated experience. What is taught and what is learned are often two very different things. Our students enter our learning spaces with unique schema that interacts with our curriculum in unique ways. Some are very successful and engaged, others have a far less positive experience. We try to design the "perfect" curriculum to meet the needs of all students. That simply doesn't exist.

In the past two years my core college curriculum in technology for future teachers has tripled in size. I began with 30 quests and now have over 100. Where did they come from? The students.

While foreign at first, I realize that not only are they great colleagues in evaluating curriculum but they are exceptional in developing it. And, when engaged in the process of creating an environment they feel control over, they excel. Here are just a couple of ideas.

Letting go of the need to determine and direct it ALL boils down to these basic ideas.

- *Great teachers don't need to design every learning activity*
- *Great teachers guide great students in designing learning activities.*
- *Often the best curriculum is one that feels authentic, situated, personally relevant, and (often times) somewhat like we are making it up as we go along.*

Especially significant to the last idea above, we know that we are not "making it up" necessarily. Whether a student is working through Chapter 2.2 pg. 32-4 Ex. 1-47 odd OR building a cardboard robot perfectly to scale from the movie Pacific Rim, it doesn't really matter. Teachers can prepare students to use formulas, make measurements, do complex math problems, or myriad other tasks that would fall under the auspices of the standards.

We as a profession, as a collection of game-based-teacher-questonauts, need to be willing to release control of who does the creation and provide our critical role of deciding both how it fits and how to make it fit into the expectations of our institutions. I believe this is what we do best.

So, moving forward I encourage you to pull in your best and most energetic students and engage them in the process of "making it up as we go along." Identify those students who have a genuine disconnect with your curriculum, and do the same. Find out what they love and make connections to your curriculum. Quest-based learning allows us to truly differentiate instruction and achieve the same desired winning condition. Let's get our kids involved in quest design, vetting, testing, and overall curriculum creation.