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Designing a self-directed gamified professional development course for technology integration

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Abstract
Gamified Professional Development for Technology Integration is a one credit license renewal or graduate credit course that can be offered to teachers at the elementary and secondary levels, and pre-service teachers at post-secondary levels, for self-paced learning. Created in response to a lack of dedicated in-service time and ineffective professional development, I sought to develop a rigorous self-paced course using the Understanding by Design framework (Wiggins & McTighe, 2005) – a course where teacher-learners could master technology tools, make their personal meaning, and independently/flexibly transfer learning to authentic tasks they could replicate in their own classrooms.

Designing a Self-directed Gamified Professional Development Course for Technology Integration

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Abstract

Gamified Professional Development for Technology Integration is a one credit license renewal or graduate credit course that can be offered to teachers at the elementary and secondary levels, and pre-service teachers at post-secondary levels for self-paced learning. Created in response to a lack of dedicated inservice time and ineffective professional development, I sought to develop a rigorous self-paced course using the Understanding by Design framework (Wiggins & McTighe, 2005), where teacher-learners could master technology tools, make their personal meaning and independently and flexibly transfer learning to authentic tasks that can be replicated in their own classrooms.

Keywords: gamified professional development, self-paced teacher learning, technology integration

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Designing a Self-directed Gamified Professional Development Course for Technology Integration

Effective professional development for teachers is more important than ever. Educational reforms such as Common Core State Standards (adopted by the State of Iowa in 2008) have required drastic changes to classroom practices. Given the emphasis on preparing students for college and careers coupled with 21st Century student needs, teachers will have to learn and implement new teaching practices.

It is no secret that, for the most part, professional development has been ineffective. In their 2013 Report titled "Teaching the Teachers", the Center for Public Education cited research that stated 90% of teachers who had participated in professional development felt it was useless. Teachers are being provided professional development, but their practices have not changed. The most prevalent model, one-time workshops, have not been effective in changing teachers' practices and student achievement (Center for Public Education, 2013).

As a technology integrationist I frequently provide professional development to teachers, something I have done for nearly 15 years in my school district. We are located in Northwest Iowa, and like many rural schools, we whole-grade share with a neighboring district. Our whole-grade sharing partnering agreement is for grades 9-12 to be housed in one building/town, Junior High in another, and Elementary in a third building/town. Approximately 200 high school students and 20 teachers are housed in the building where I spend a majority of my time. Last school year I spent considerable time delivering face-to-face instruction to teachers on technology topics, primarily Google. I provided approximately 8 hours of professional development during the second semester of the 2014-15 school year in preparation of our upcoming Chromebook initiative. We were transitioning from a 1:1 iPad setting to a 1:1

Chromebooks environment and earlier attempts of technology adoption had failed. Simply put, the iPads were not utilized to their highest potential. All of our high school students were issued Chromebooks at the beginning of the 2015-16 school year to use on and off campus. As a result, technology training was even more critical than ever.

Although during the last school year there was a plenty of opportunities for face-to-face professional development instruction, this year our school year Master Calendar allowed only one day during the school year for professional development. This dilemma called for a new method to deliver technology instruction to teachers. In addition, despite the instruction teachers received last year, our most recent Clarity survey data indicate some teachers are using technology, but not at a level that promotes critical thinking, communication, collaboration, and creativity.

The Clarity Survey by BrightBytes is a research-based framework that informs the data gathering and analytical processes used to improve the impact of technology on learning outcomes (BrightBytes, 2015). Our most recent data from December, 2015, show that 16% of our teachers use technology as a direct tool substitute with no functional change, and 33% of teachers use technology as a direct tool substitute, with functional improvement. Lack of dedicated professional development time and teachers' current technology use indicate a need for a different approach for meaningful adoption of technology for teaching and learning.

For this project, gamification will be defined as the "use of game design elements to motivate user behavior in non-game contexts" (Deterding, 2011). Gamification requires incorporating game elements into a non-gaming software application to increase user experience and engagement (Dominquez, Saenz-de-Navarrete, De-Marcos, Fernandez-Sanz, Pages, & Martínez-Herraiz, 2013). My project included the design and beta testing of gamified

professional development on teacher learning. To foster teachers' technology expertise for changed practices and engaged students, it is imperative that we provide alternative methods to meet our challenges (Center for Public Education, 2013). The real challenge in our high school is how to provide alternative ways for teachers to learn how to grow their practices into technology-rich environments that meet the 21st Century expectations dictated in reforms such as Iowa Core. Based on the research, evidence of lacking effective professional development opportunities, I designed this gamified professional development course, attempting to make a contribution to the field of professional development in the following three aspects:

1. This project's success may support an alternative to our traditional workshop model; knowledge of how gamified professional development can fill a district need may lead to a change in assumptions concerning how we should teach teachers.
2. Gamified professional development could produce improved practices for teacher-learners, and as a result, student-centered, technology-based learning opportunities - promoted in Iowa Core - could become the norm in classrooms in my district. Results of this project could provide guidance for other districts who struggle with similar issues - time availability and lack of meaningful technology integration. To my knowledge, little research has been done on using gamification for professional development. Therefore, my project may help fill the research gap.

Literature Review

In this literature review, I explored the effect of teacher professional development. A total of 12 peer-reviewed journal articles, books and reports have been reviewed. The selected literature highlights features of professional development in the elementary and secondary settings. With school reform and student achievement gaining more national attention, the

quality of teachers' professional development has become more important (Center for Public Education, 2013). This review will attempt to inform readers about what has worked and what has not in the past, and what the future holds as schools struggle to provide quality in-service for their teachers. Three major themes emerged in this literature review: 1) the importance of professional development, 2) features of ineffective and effective professional development, and 3) new professional development strategies.

Teacher Professional Development

Importance of professional development. According to the National Commission on Teaching and America's Future (2010), over the past decade school quality has increasingly become the emphasis on teachers' professional development, and teachers should be transforming their personal knowledge to meet the needs of 21st-Century learners.

Views of teachers' professional development has taken center spotlight in the current age of school reform and student achievement: "strong professional development opportunities must be embedded in the very fabric of public education" (National Commission on Teaching and America's Future, 2003, p. 129). The National School Boards Association Center for Public Education reports, "in this high-stakes era of higher standards and teacher evaluations based in part on student achievement, professional development has to have a laser-light focus on one thing - student learning" (2013, p. 2).

Definition of professional development. Professional development refers to ongoing learning opportunities for teachers. In the No Child Left Behind Act, professional development is defined as activities that:

- Improve and increase teachers' knowledge of the academic subjects the teachers teach, and enable teachers to become highly qualified;

- Are an integral part of broad school-wide and district-wide educational improvement plans;
- Are high quality, sustained, intensive, and classroom-focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom, and are not one-day or short-term workshops or conferences; and
- Advance teacher understanding of effective instructional strategies that are based on scientifically-evidenced research; and directed toward improving student academic achievement or substantially increasing the knowledge and teaching skills of teachers (NCLB Act, Title IX, Sec. 9101 [34], 2001, p. 6).

Iowa legislation. In May of 2001, the Iowa General Assembly passed legislation that stated professional development should be a key component in Iowa's school reform and created the Student Achievement and Teacher Quality Program to acknowledge teachers' integral part in student success. By 2007, legislators changed the bill to require attendance centers, establish a professional growth system for administrators, and form Teacher Quality Committees (Iowa Department of Education, 2009, p. 9). These Local Educational Agency (LEA) committees are charged with monitoring the local implementation of the Teacher Quality program and determine the use and distribution of professional development funds while following the Iowa Professional Development Model (Iowa Code 284.4).

Features of ineffective and effective professional development. Multiple studies report that professional development offered to teachers has largely been ineffective. American teachers have indicated that current professional development methods have not been useful (Darling-Hammond, Chung Wei, Andree, & Richardson, 2009; Hiebert, 1999; Yoon, Duncan, Lee, Scarloss, and Shapley, 2007.) Current professional development neither changes teacher

practices nor improves student learning; the workshop model has a poor track record for changing teacher practice and student achievement (Center for Public Education, 2013).

As evidence continues to grow about what is not working, there is also evidence mounting about what does work. Effective professional development should be significant and ongoing to include time for teachers to learn a new strategy, wrestle with implementation, and receive ongoing support during the implementation stage (Center for Public Education, 2013). Pitsoe and Maila (2012) state modern professional development must make a "dramatic shift in professional development focus, away from the transmission model of teaching, towards one that is much more complex, situational/contextual, and interactive" (p. 324) and that from a constructivist theory perspective, professional development should be pursued as a lifelong learning activity.

New professional development strategies. The research revealed that, as educators seek new methods to improve professional development, new strategies should begin as small pilot studies designed to test effectiveness. Guskey and Yoon (2009) stated that "implementation of any new professional development strategy should always begin with small-scale, carefully controlled, pilot studies designed to test its effectiveness" (pp. 498-499).

Darling-Hammond, Chung Wei, Andree, Richardson & Orphanos (2009) identify school-based coaching as one of the newest forms of professional development. They state: "typically in such models, administrators identify well-regarded veteran educators and assign them to provide ongoing guidance, advice, and mentoring to a group or groups of teachers to help them improve their instruction" (p. 9).

Little research could be found regarding the effectiveness of new strategies such as coaching and gamification in professional development. One small study conducted by Figg,

Jamani & Ciampa (2014) was presented as a paper at the Society for Information Technology & Teacher Education International Conference in 2014. The researchers, from Brock University, Canada, gathered data on the experiences of six instructors who had participated in their TPACK Teacher Game, an online game intended to teach TPACK knowledge needed for effective technology enhanced teaching practices. TPACK is an acronym for "Technological Pedagogical Content Knowledge" and is a framework that seeks to identify the knowledge teachers need to teach effectively with technology (www.tpack.org). Figg, Jamani & Ciampa (2014) found that the use of game play created a deeper understanding of knowledge of TPACK and enabled teachers to visualize how technology tools and game mechanics could be incorporated into their own instructional practices.

Given the lack of research about gamified professional development, and recommendations that new professional development strategys begin with small-scale pilot studies (Guskey and Yoon, 2009), my gamified professional development project could contribute to published research. While Figg, Jamani & Ciampa (2014) used gamification to explicitly teach the TPACK knowledge needed for effective teaching practices, I will focus on the ISTE Standards for Teachers and the effect of gamified professional development on adopting technology for teaching and learning.

As national, state, and local policymakers and educators shift focus from what children learn to how they are taught, teachers are the center of reform, for they are the ones to carry out the demands of high standards in the classroom (Cuban, 1990). As stated in the Center for Public Education's report, "Districts cannot just do more of the same. They have to develop new approaches to teacher learning on their campuses, approaches that create real changes in teacher practice and improvement student achievement" (Center for Public Education, 2013, p. 2).

Guidance from the analysis of current professional development models and studies into emerging models will be essential if districts and teachers are to rise to the challenge.

Description

For this project I developed gamified professional development with the intent to offer it as a self-directed course for teachers in my local Area Education Agency (AEA) during the fall of 2016. The option for graduate credit will be provided. There are time requirements to receive credit: graduate credit requires 18 contact hours and 32 hours of independent work. These requirements were the centerpiece of my planning. I met with our AEA's license renewal coordinator and the technology integrationist assigned to my district to begin the development of a timeline to work collaboratively to write a syllabus for approval.

I started the project by using the existing data of teachers' need of Clarity Survey by BrightBytes, which is a research-based framework that informs the data gathering and analytical processes used to improve the impact of technology on learning outcomes (BrightBytes, 2015). Our most recent data from December, 2015, show that 16% of our teachers use technology as a direct tool substitute with no functional change, and 33% of teachers use technology as a direct tool substitute, with functional improvement. Lack of dedicated professional development time and teachers' current technology use indicate a need for a different approach for meaningful adoption of technology for teaching and learning.

I decided to use Understanding by Design (Wiggins & McTighe, 2005) as the framework, and began the process of identifying desired goals by unpacking the standards and determining transfer goals, meaning making goals and knowledge and skill acquisition goals as the first stage, determining the assessment to alignment the goals as the second stage, and planning learning

activities as the third stage. I used a UbD Design Template as a guide to think the "big picture" of my design (see Table 1).

This design is intended for the delivery gamified professional development to be offered on a web-based platform. The professional development will give teachers knowledge, skills and understandings that technology can be used to include 21st Century Learning skills, differentiate instruction, and provide student voice and choice in the demonstration of students' learning. Furthermore, teachers will gain understanding of effective technology integration that aligns to the International Standards for Technology Education (ISTE) for teachers.

<table>
<tr><th colspan="3">Stage 1 Desired Results</th></tr>
<tr><td colspan="3">To begin the unit, all teachers will be introduced to the ISTE standards and the web-based platform (www.bkpd.weebly.com), followed by individualized professional development so teachers will gain mastery and transfer their knowledge, skills and understanding to lesson creation and redesign using technology.</td></tr>
<tr><td rowspan="6">ESTABLISHED GOALS

(ISTE Standards for Teachers)

Standard 1: Facilitate and inspire student learning and creativity. Teachers use their knowledge of subject matter, teaching and learning, and technology to facilitate experiences that advance student learning, creativity and innovation in both face-to-face and virtual environments.</td><td colspan="2">Transfer</td></tr>
<tr><td colspan="2">Teachers will be able to independently use their learning to...

• Teachers can independently, wisely, and pedagogically use technology to enhance students' learning to meet the diverse needs of their students.</td></tr>
<tr><td colspan="2">Meaning</td></tr>
<tr><td>UNDERSTANDINGS *
Teachers will understand that...

pedagogical use of technology is essential to properly teach 21st-Century learning standards as addressed in ISTE Standards.

Using technology can facilitate student-centered teaching approaches.</td><td>ESSENTIAL QUESTIONS

How can I effectively use technology to meets the multiple learning needs of students?

How can I use technology to create a student-centered environment?</td></tr>
<tr><td colspan="2">Acquisition</td></tr>
<tr><td>Teachers will know...</td><td>Teachers will be skilled at...</td></tr>
</table>

	technology tools that can be used to meet ISTE Standards. evidence of learning, how to navigate website and earn badges	selecting appropriate technology tools, such as Skype, Zoom Conferencing, Movenote, or Google documents, to meet the multiple learning needs of students. considering students' interests in order to offer voice and choice.

Stage 2 - Evidence

Stage 2 *Determining Acceptable Evidence* provides assessment and criteria for teachers' understanding and transfer of knowledge and skill of the ISTE Standards for Teachers and technology integration to meet the diverse learning needs of students. The GRASPS task was used to develop an experience that will allow teachers to effectively perform by demonstrating they can transfer their knowledge to help other teachers wisely and pedagogically use technology to enhance students' learning.

Evaluative Criteria	**Assessment Evidence**

(Transfer Goals)
 	
Teacher-learners will be assessed by:
 	
• Screencast of their lesson to model sound technology integration published to a global audience
• Self-reflection and self-assessment
	Performance task
	
	G: Goal: Teacher's' task is to learn the technology tool that will solve the problem presented in the gamified unit for the ISTE Standard 1.
	
	R: Role is teacher-learner participating in gamified professional development.
	A: Audience is fellow teacher-learners who are also participating in the gamified professional development.
	S: Situation is that the teacher-learner is a participant in a competitive gamified professional development that requires mastery of technology tools in order to receive the game badge.
	P: Product: The teacher-learner will be required to demonstrate mastery of each ISTE standard by solving the problem presented in the gamified professional development scenario for each ISTE Standard.
	S: Standards and Criteria for Success:
	
	• Performance (final product for each ISTE Standard) needs to
	  ○ define the ISTE Standard criteria used
	  ○ include at least one example of technology used for that Standard/criterion
	  ○ explain how that changed the lesson it was applied to
	  ○ discuss how it better met the diverse needs of students through the use of this technology application
	• Teacher-learner's work will be assessed by a rubric
	• Product must meet the ISTE Standard

(Meaning-making Goals) Teacher-learners will be assessed by • Observation • Discussion • Peer evaluation	The appropriate and pedagogical use of technology can create opportunities for students to demonstrate their learning using voice and choice. The ISTE Standards for Teachers is an effective guide to meaningful and effective technology integration. *Apply, by: (efficiently)*

• Self-assessment and self-reflection	• using the appropriate technology tool in instruction that will allow for student voice and choice. *Reflect on: (reflectively)* • how the use of technology in lessons meets the diverse learning needs of students. • how students benefit and have more meaningful learning experiences if allowed to use voice and choice. *Interpret:* • when technology integration can be used to enhance student learning. *Apply by:* • using ISTE Standards to pedagogically apply technology integration to a lesson.
(Knowledge acquisition goals) Teacher-learners will be assessed by • Observation • Discussion • Peer evaluation • Self-assessment and self-reflection	Have knowledge the 5 ISTE Standards for teachers Know what technology tools can be used to integrate technology for various applications Know how to use technology tools introduced in the gamified professional development.
(Skill acquisition goals) Teacher-learners will be assessed by • Observation • Discussion • Peer evaluation • Self-assessment and self-reflection	How to choose technology tools to transform lessons and assignments. How to select appropriate technology tools to meet the multiple learning needs of students. How to consider students' interests in order to offer voice and choice.

Stage 3 - Plan Learning Events and Instruction

Stage 3 learning activities are meant to promote teacher-learners' mastery of desired results and their subsequent success on assessment tasks. The focus is making sure the learning activities in the designer's professional development aligns with Stage 1 goals. UbD requires that teachers be given numerous opportunities to draw inferences and make generalizations themselves through well-planned design and support, as well as opportunities for learners' self-assessment. Stage 3 offers these opportunities.

Goals	Description	Teaching approach(es)	Technology	Why
Teachers can	Teacher-learners will learn	Gamified	Website for	To engage teacher-

independently, wisely, and pedagogically use technology to enhance students' learning to meet the diverse needs of their students.	about technology tools and make connections to how it align with ISTE Standards for Teachers.	Inquiry-based instruction	threaded discussion Video Flipped Instruction	learners and encourage communication
Teachers will understand that... pedagogical use of technology is essential to properly teach 21st-Century learning standards as addressed in ISTE Standards. Using technology can facilitate student-centered teaching approaches.	Self-reflect on why ISTE Standards for Teachers is an effective guide to meaningful and effective technology integration.	Collaborative learning	Padlet Today's Meet Thinglink	Teacher-learners can increase their expertise with opportunities to learn together.
Have knowledge the 5 ISTE Standards for teachers Know what technology tools can be used to integrate technology for various applications Know how to use technology tools introduced in the gamified professional development.	Master the selected technology tool and apply to own lesson.	Demonstration Direct instruction	Screencasts Skype Zoom Conferencing	Through the use of techniques such as demonstration and direct instruction, teacher-learners will have the opportunity to learn from someone who has already mastered the technology tool, thus increasing the likelihood of their own mastery of the tool to be used again in the future.

I decided to align the course with ISTE Standards for Teachers. While teachers are most likely familiar with the Iowa Teaching Standards and Iowa Core, using the ISTE standards would increase their knowledge base and provide them with another tool to use to guide them as they increase technology integration into their practices. Iowa Teaching Standards alignment will

also be included with the tasks to provide teachers with artifacts that can be referenced and used for their teaching evaluations. However, the emphasis will be on the ISTE Standards.

When deciding the number of challenges to assign, I once more had to consider the time requirement. In the end I decided teachers would be required to complete five performance tasks that would require them to learn a new technology tool, use the tool in a lesson re-design, and reflect on the implementation. In addition, "bonus" collaboration hours could be earned to meet the requirement.

Planning the performance tasks would be a bit more time-consuming. I wanted the tasks to be realistic and something that could be replicated in classrooms once school commences again in the fall. These would become the GRASP tasks in my UbD instructional design. Because my teaching experience is limited to college-level classes, I decided to seek the support of a middle school technology integrationist. In addition, I explored gamified professional development that had been created by others. I had attended sessions on gamification at recent technology conferences, so I was equipped with a good knowledge base.

Because participants will earn credit for this class, it was necessary to develop a grading rubric. The criteria are: learning the tool, lesson re-design and evidence demonstrating plan to use with students, and reflection. Because collaboration is a "bonus" category, it will be assessed separately. Teachers would be assessed as to whether they meet the criteria, have developing skills, or beginning skills.

Samples of Design

With the design completed, I began the process of designing a Weebly website for participants to use (www.bkpd.weebly.com). The website includes pages to guide teacher-learners through the gamified process. Following are screenshots of each page.

This is the first page of the website. Here participants are introduced to the concept of gamified professional development and the ISTE Teacher Standards. Teacher-learners will receive direct instruction of differentiation methods for using technology during the 4-hour introductory class.

Figure 1: Professional Development "Start Here" Page Screenshot

Note. From Kinnander, R. (2016). *Professional Development Website.* Retrieved from http://bkpd.weebly.com.

The second page of the website establishes the rules, describes how teacher-learners can earn points, and how they will be rewarded for accomplishing tasks.

Figure 2: Professional Development "Rules of the Game" Page Screenshot

Note. From Kinnander, R. (2016). *Professional Development Website.* Retrieved from http://bkpd.weebly.com/rules-of-the-game.html

The next page of the website provides a more in-depth look at the ISTE Standards for Teachers and provides buttons with links to the individual standards webpages.

Figure 3: Professional Development ISTE Standards Page Screenshot

Note. From Kinnander, R. (2016). *Professional Development Website.* Retrieved from http://bkpd.weebly.com/standards.html.

The Challenges are the UbD performance tasks; teacher-learners will solve the problem presented for each ISTE Standard.

Figure 4: Professional Development ISTE Challenges Page Screenshot

Note. From Kinnander, R. (2016). *Professional Development Website.* Retrieved from http://bkpd.weebly.com/challenges.html.

Teacher-learners will be awarded a proficiency badge once they have mastered each standard, demonstrated by completion of the task that meets criteria listed on the course rubric. The badges represent the UbD formative assessment.

Figure 5: Professional Development ISTE Badge Page Screenshot

Note. From Kinnander, R. (2016). *Professional Development Website.* Retrieved from http://bkpd.weebly.com/badges.html.

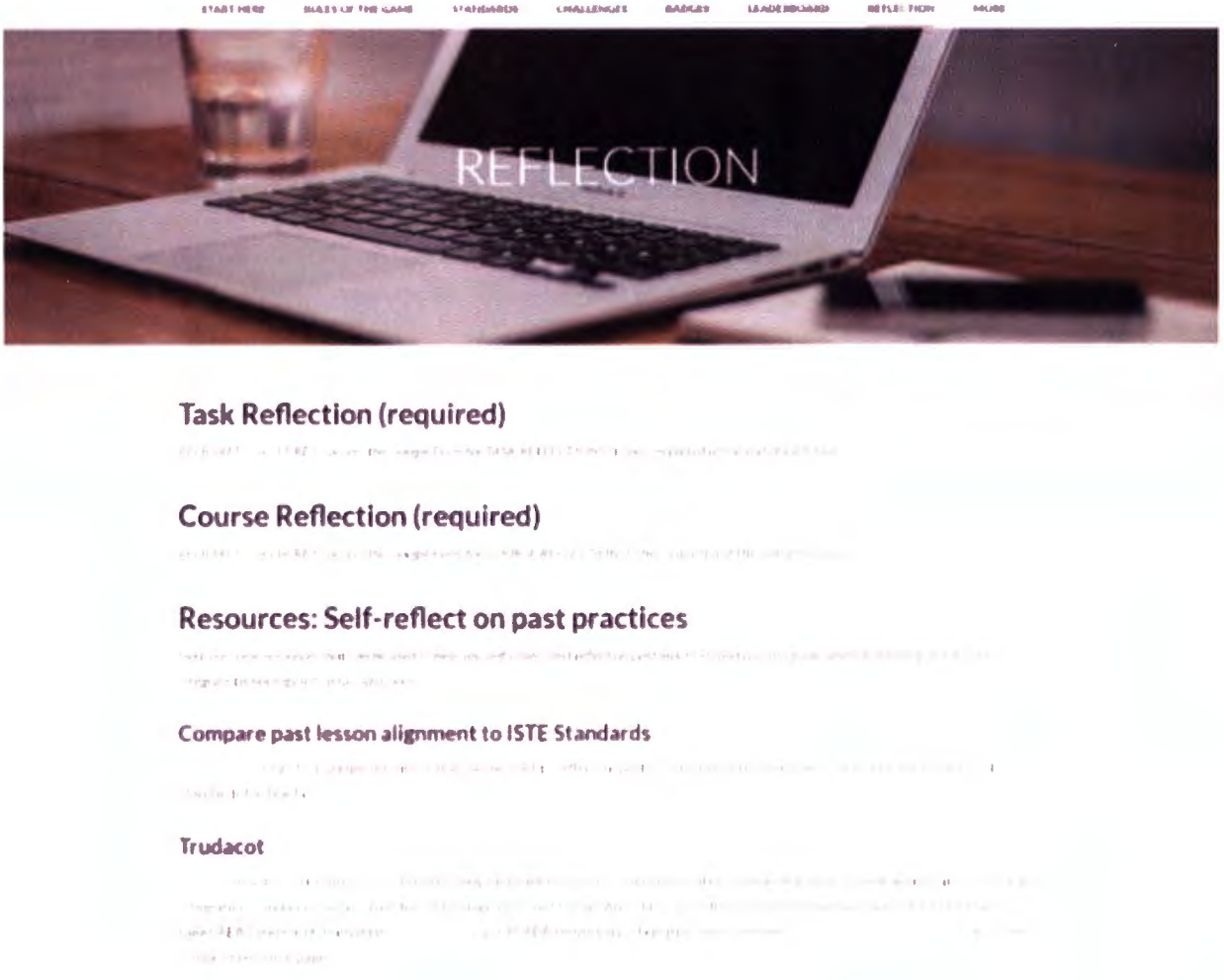
A leaderboard will be established with the names of participants as they complete each level of the game.

Figure 6: Professional Development ISTE Leaderboard Page Screenshot

Note. From Kinnander, R. (2016). *Professional Development Website.* Retrieved from http://bkpd.weebly.com/leaderboard.html

Reflection is part of the required coursework and serves as formative assessment. Teacher-learners will reflect on each task and on the overall course once completed. Included for further reflection under the Resources title is a document to use to compare and align past lessons to the ISTE Standards for Teachers and a link to more resources for examining one's own technology integration practices.

Figure 7: Professional Development ISTE Reflections Page Screenshot



Note. From Kinnander, R. (2016). *Professional Development Website.* Retrieved from http://bkpd.weebly.com/reflections.html

The course syllabus is located on the website for easy access. Grading rubrics are included with the syllabus. Participants can view the entire syllabus on the web page or click to download it as a pdf.

Figure 8: Professional Development ISTE Syllabus Page Screenshot

Note. From Kinnander, R. (2016). *Professional Development Website.* Retrieved from http://bkpd.weebly.com/syllabus.html

Outcomes

Planning for Beta Testing

I have not launched this project yet; I will be able to offer this class in the fall of 2016 through my former Area Education Agency (AEA) employer. I have been a professional development instructor for this AEA for over ten years, and it is a partnership that continues. I will be offering two Google Apps classes during the summer of 2016 and hope to gather volunteers to beta test this project during that time.

Throughout the course design, I met with and received feedback from my AEA technology integrationist and the license renewal coordinator. In addition, I consulted with peers to get their input on the web design and technology challenges. I engaged in continual self-review as I developed the course and website. I used these data sources as my formative assessment of the design.

During implementation of the project, I will ask the AEA Technology Integrationist to observe my teaching and give me feedback for improvement. The collaboration piece in the course design is a built-in mechanism that will create a learning community of teacher-learners for discussion and peer feedback. Their responses to discussions will give me opportunities to self-reflect on the course design and gain insight on what worked and what can be improved.

Refection

Instructional design. This project was a culmination of the skills I acquired over the past two years of this Master's program. Many of our classes required digital artifacts and I had chosen to create Google Sites several times to serve as a portal for my work. I wasn't familiar with Weebly until I decided to use it for my Master's final portfolio (www.bkinnander.com). I

was impressed with the ease of use and professional look of Weebly and that is why I decided to use it for this project.

When I was taking our instructional design class for this degree, I disliked UbD very much. However, now that there has been some passing of time since that class and my attitude toward it has softened, I found it is the best and most logical fit for my design approach. Even without formalized instructional education before I began this program, I discovered that my approaches to course design were not that far off from UbD.

Challenges

Challenges that were barriers for me during the creation this project were time-related. Due to unforeseen circumstances, it has been difficult to dedicate the appropriate amount of time to complete this project with opportunity to alpha and beta test before this semester ends. As I said earlier, it is my intent to do so this fall.

Other challenges included the lack of collaborative partners in creating the teacher-learner tasks. I have come to rely on collaboration with my cohort members and they were unavailable because this was the time for them to work on their own individual papers/projects. Everything I've learned about gamification prior to this project was that collaboration is very helpful in the process. I was able to discuss ideas with a fellow technology integrationist, but the task of creating the scenarios fell solely on me. Falling back on my UbD experience, I found that if I approached each scenario as a mini "GRASPS" task, it became easier. GRASPS is an acronym to assist instructional designers create authentic scenarios of performance tasks: goal or challenge in the scenario, role the learner plays, audience, situation or context and performance expected (Wiggins & McTighe, 2005).

Limitations

One limitation to this project completion is that the gamified professional development has not yet been implemented. As I stated earlier, the plan is to beta test this summer and implement in the fall. Once implemented, data collected from participants can be used to improve the project.

While I had completed a unit using UbD in my master's program coursework, this was my first attempt to transferring my learning to a "real life" situation. My inexperience was a limitation and I sought assistance from my professor to complete the design.

A limitation of this project could be that a novice in technology may have difficulty learning the technology tools independently. I plan to address this by indicating in the course description that someone who falls in the beginner to intermediate skills range would be most successful in a class like this. Additionally, offering my support through web-based conferencing such as Zoom or Skype could benefit the teacher-learners who are closer to the "beginner" skill level. If I was offering this class within a specific district, I could offer a "prerequisite" face to face class to teach how to use different technology tools.

Another limitation for teacher participants could be lack of access to current technology. To address this, I tried steer participants toward free or inexpensive tool recommendations. Some tasks may be better performed with paid apps. A participant may have easy access to a paid app through their school device but not with their personal device.

Conclusions and Recommendations

When I started this project, I had the intent to implement it this summer. However, circumstances changed and it was not possible. I am encouraged by my former AEA peers' willingness to partner with me to help me offer it in the fall. I see that as a sign of strong support

that they believe in this project and want to see it implemented in their AEA in the hopes it will offer alternatives for teacher learning.

Instructional Design

Using the UbD framework and imagining the challenges as "mini GRASPS tasks" was extremely helpful in furthering the project in a logical manner. Reaching out to fellow technology integrationists and researching how others have created their gamified platform was also helpful. Time and time again, I found a willingness from them to share what worked and what did not. As a technology integrationist said following her presentation at a conference, "Use what you want; my only requirement is that if you make it better, tell me how!"

I tried to create the tasks so they could be applied to any grade level. I do not want to limit the audience of teachers that would benefit from this type of class. I feel it is essential to meet teachers "where they are at" and provide opportunities for alternative ways to earn license renewal or grad credit that fit into their busy schedules, interest level and ability. I am anxious to see the results of my beta testing this summer and improve the project. One of my alpha testers recommended allowing teachers to create their own "bonus" task. I think it's a great idea that will stretch teacher-learners' imaginations and potentially add to the pool of tasks I have already written.

Future Direction

As I have stated, I plan to offer this course in the fall of 2016. As a work in progress, I anticipate I will make changes prior to that based on my beta testing that will occur this summer. I am encouraged by the support I have received from my local AEA professional development coordinator who is interested in continuing our partnership even after I leave for my new job that

is with another Area Education Agency. As an adjunct professor, I would like to explore for possibilities of offering something similar in the online post-secondary setting.

Much like my expectations for teacher-learners to stretch their critical thinking and metacognitive reflective skills, I am excited to see what direction this project takes me in terms of my own learning - in instructional design and professional development approaches.

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