

Bridging Networked Learning Across Multiple Levels: Participatory Approaches to Competency-Based Learning

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Abstract: This paper describes new work that is currently exploring how participatory learning can be fostered in a competency-based system. By using a new curricular framework, a system of leveled digital badges, and a Ning, this work incorporates methods and insights from the CSSL community, which is helping to engage a difficult population in meaningful discourse around complex and abstract concepts in concrete contexts.

As MOOCs and digital badges are emerging as part of the educational sphere, it is becoming clear that our definitions of what it means to “learn” and to “know” – and therefore what classroom learning looks like – must be adapted to include these new technological movements. Henry Jenkins’ (2009) notions of participatory culture may not have initially been intended for classroom settings, but a new approach to instructional and assessment practices that embraces situative views of knowing and learning (e.g. Greeno, 1998) provides an opportunity for participatory culture to converge with the knowledge outlined in the prevailing standards-based educational reforms. This approach creates occasions in the classroom where meaningful discourse around complex concepts and self-reflection can take place in grounded and increasingly formal contexts.

This curricular framework emerged out of earlier work inspired by situative approaches to assessment and takes a broader view of learning than conventional behavioral and cognitive theories (Gee, 2003; Greeno & Gresalfi, 2008). This leads to a broader view of what constitutes “assessment” (Hickey & Anderson, 2007) that blurs the distinction between instruction and assessment, and argues that all learning involves assessment. The approach allows assessment to take on a “transformative” function, positioning assessment *as* learning, and assumes that assessment has the power to transform learning ecosystems. This paper discusses how a recent implementation, coupled with the introduction of a digital badging system, is allowing assessment to serve summative, formative, and transformative functions for different types of learning while fostering participatory engagement and indirectly but consistently impacting student understanding and aggregated achievement.

Participatory Learning and Digital Badges in a Competency-Based System

This research was initiated in 2008 as a collaboration between a University-based team of assessment specialists, a curriculum development effort led by Jenkins’ Project New Media Literacies, and a gifted English teacher. This collaboration refined emerging sociocultural approaches to informal and formal classroom assessment around a comprehensive new media curriculum organized around a classic text. These assessments structured increasingly formal activities, where the initial activities are more informal and participatory, while the later activities are more formal and standards-oriented. The assessments are designed to provide students and teachers with embodied contexts to experience the way that academic knowledge takes on different meaning in different contexts. The assessments provide a dynamic balance of summative and formative feedback that is used to shape (1) the classroom’s social learning of the shared literary practices, (2) each student’s individual learning of underlying concepts and skills, (3) the teacher’s learning to enact and refine the module, and (4) the overall impact of the instructional-assessment ecosystem on external achievement.

A driving force behind this work is an effort to foster productive disciplinary engagement (PDE), where engagement occurs around valued concepts and skills, and aims to engage learners in connected learning, bridging the gap between academic settings, peer culture, and interests.

When the MacArthur Foundation launched its Badges for Lifelong Learning Initiative, we saw an excellent opportunity to further our research and continue our efforts to resolve the tensions between participatory practices and competency-based accountability policies. At their core, badges are really just an easy way to show off someone’s skills and achievement. This means that they can act as credentials for learning in any setting, including that of a classroom. The learning represented by badges can be small achievements like completing an assignment or they can represent an accumulation of several smaller achievements that lead to mastery of a concept in a domain. As credentials, badges for competency-based learning have great potential because they can be “leveled” to represent the degree of mastery a student has attained in a particular competency. Digital badges are being implemented in many different settings, but many are doing so from a conventional competency-based approach that is not consistent with Connected Learning. We are combining our curricular approach with a digital badging system to foster participatory and connected learning in a competency-based learning system.

One instance when digital badges and this curricular framework came together was in a literature circle unit as the research team collaborated with an ELA teacher at an alternative high school that serves students

who did not fare well in the mainstream high schools. When the school opened in 2010, the district partnered with an organization known as *Diploma Plus*. The Diploma Plus Competencies are part of a standards-aligned approach that outlines the critical thinking skills needed to master core knowledge in rigorous and relevant ways. They provide teachers with a framework to authentically assess students at increasing levels of proficiency.

As part of our ongoing work and in an effort to help this population succeed, we designed a module where students took on different “roles” for reading each section of a book, and allowed those roles to shape their understanding of (a) the text, (b) the Diploma Plus Competency of developing meaning in a text, and (c) the skill of identifying and analyzing themes that emerge in a text as outlined in the Common Core Standard in a participatory setting. This module also engaged students in networked learning, which is quickly becoming a basic skill for all students.

The teacher had struggled to incorporate the Diploma Plus Competencies into her curricula and sought assistance from the research team, who saw leveled digital badges as a way to both integrate these somewhat abstract Competencies meaningfully into a curricular unit and provide the students with concrete visual representations of what they were working to master. We implemented smaller peer awarded marks of recognition called *Stamps of Approval* that are being used in a hybrid post-secondary course and other ELA courses in local high schools as a way to motivate students while they engage critically with the content. In this implementation, stamps are posted as comments to the blogs and indicate that the author had impacted the commenter’s thinking in a significant way. These stamps serve transformative assessment functions in that the activities become not only opportunities to demonstrate a student’s grasp of the text and concept in the Common Core Standard, but a forum for self-reflective thinking and discussion.

More substantial teacher-awarded badges were designed to reflect the level of a student’s mastery of the Competency. The metadata of the badge holds pre-determined information about the level of the badge and the Competency for which it is awarded, and customized information about what a particular student did to earn the badge. In this badging system, the teacher uses the stamps as flags to draw her attention to specific features of, in this case, a blog influenced learners’ understanding, and assesses the blog with those stamps in mind. While the stamps do not determine the awarding of a badge, the interactions suggest that students are thinking critically and reflectively about the skills outlined in the competency.

Engaging a Challenging Population

The student population is challenging, as they each come to the alternative school with vastly different skill sets and motivations, as well as different emotional and mental issues. Many of these students have failed multiple times in other scholastic settings and have been pushed out of the mainstream schools into the alternative school. While class sizes are small, one class of fifteen students can include students who do not read or are beginning readers and others are reading above grade level. This, combined with the students’ differing motivations to learn and engage with the content, poses a great challenge for the teacher, as they must design curricula that accommodates the varying educational and engagement levels to make sure every student has the opportunity to succeed, even if they choose not to take advantage of that opportunity.

Building on arguments articulated in Koschmann (2011), the goal of this design research is building local theories in the context of this particular practice to understand and enhance participation in scholastic practices. To this end we are using the guiding principles of the above mentioned curricular approach (Hickey, Honeyford, & McWilliams, 2012) and networked learning spaces to foster PDE and connected learning in a competency-based system.

The teacher found it difficult to motivate students toward their competencies or even know at what level they were performing. We quickly realized that digital badges were a way for the students to literally see their level of performance and what exactly constituted a Competency. These badges are leveled as One, Two, and Three Star Badges that correspond to the competency levels. From earlier collaborations with this research team, the teacher has fully integrated the use of a Ning in many of her classroom activities. While the networked collaboration that occurs on a Ning might at first seem at odds with these Competencies, bringing the two together presented an opportunity to (a) explore whether the principles of the curricular approach and the technology of digital badges could (b) help the teacher foster connected and participatory learning within the Ning network, while (c) working within the competency-based learning framework.

The next step involved finding ways to foster PDE and connected learning within this system of badges and competencies. It became apparent that, rather than just awarding badges at the formal summative level, smaller stamps of approval could reward engagement at a semi-formal level which could help engage and motivate students. These stamps were awarded simply by putting the symbol !!! before a comment that explained how the post articulated something well, furthered conversation, helped the commenter understand a concept, or was otherwise exemplary. The stamps served the purpose of (a) rewarding exemplary work, (b) providing an opportunity for the commenter to think about their own learning and engagement with the activity, and (c) alerting the teacher to interactions and learning that might have otherwise gone unnoticed.

Once the stamps are awarded, the teacher uses these as a tool to help her award formal badges, and as a teaching tool for the next round of blog posts. Students can look back at the comments in the stamps to see what they did well, and strive for that kind of work again. These stamps also serve as a starting point for a larger discussion about reflection on practice and learning. By making their smaller and larger accomplishments visible, the teacher empowers the students with the ability to literally see and reflect on their accomplishments. The badges contain very concrete characteristics, and mean something beyond the context in which it was earned. If students share these badges out to Facebook or Twitter, their friends can see concretely what they learned and how they learned it.

Productive Disciplinary Engagement (PDE) in a Competency-Based Badging System

A major component of the literature circle module involves the students posting blogs to the class Ning about their reading through the lens of their assigned role. Students read, comment, and stamp each other's work. The Ning is a mediating space for fostering PDE within a competency-based framework and badge system. Drawing on Engle & Conant's (2002) principles, we present students with the a learning environment where they can participate meaningfully both with the content and with one another around some very complex and abstract competencies, making an otherwise be a nebulous task of "developing meaning" (Diploma Plus) concrete.

Problematising Content: The Ning serves as the working space for students to post blogs about their reading through the lens of their assigned role. Because the online format of a blog is less formal than more traditional writing assignments like an essay, this affords students the opportunity to write out their thoughts and connections to the reading in a safe space while tackling the fairly complex and abstract issue of making meaning of a text's themes. Comments and stamps allow the students to receive feedback informally and in a positive and productive manner; instead of critiquing the blog itself, students write comments and award stamps that celebrate and critique the way the blog reveals themes and explains real world connections to the text. The Ning blogs are easily edited, so the students can explore the idea of theme and the different themes they feel are present and relevant, receive feedback from their peers and teachers, and revise their work as they feel appropriate. Grappling with developing the meaning of "theme" in general and of the themes emerging in the text is no easy task, but students seem to feel comfortable in testing out their thoughts on this problem in this space, as is evidenced by their postings and revisions.

Giving Students Authority: In addition to providing a place to explore ideas, the Ning has become a space owned by the students. While the teacher posts comments to the blogs, she does not provide direct critiques or instruction in that space, but encourages the students to read with a critical eye and engage in conversation about the claims being put forth. Student ownership is evident in the way students comment and push back on the concepts and thoughts put forth in the blogs, using causal language and offering apologies with their critiques. This language indicates that the students feel their peers will read the feedback and take it seriously, so they too must take the commenting seriously. In oral classroom discussions the students reference specific blog excerpts and comments. The roles also help give the students authority over the space and their work. Eight of the twelve blogs that have been posted relate the book to real life situations, and several are written in the first person, taking on these events as though the students are living them. Eight of the twelve blogs posted contain some kind of analysis of the text, and five of the blogs include outside research references. The students have done more than report on what they had read; they are taking on their role as summarizer, investigator, or researcher and really analyzing the text to find meaning in it.

Holding Students Accountable: The openness and visibility of the blogs posted on the Ning also provide a sense of accountability for one's work because the students' names appear in big bold letters next to the title of the blog. Students know that what they post to the Ning will be read by their peers, which – the teacher surmises – is leading to the students enlisting their teacher's expertise before posting to the blog. Most students are choosing to write their blog as a Word document and ask their teacher for grammatical and general feedback prior to posting. This is particularly remarkable given the student population and their previous seeming lack of concern for the quality of the products they produced as reported by the teacher. The teacher remarked that this assignment is the first time the students really seem to care about what the product looks like before it is posted, and she posits it is because the students know their peers will be reading it. Once the blogs are posted, the comments and stamps keep the students accountable, as many of them provide critiques along with the acknowledgement of the work that the student completed. Comments like this one are beginning to surface:

I think that your blog was pretty good because you played your role well. I liked how you connected and pointed out certain things such as gangs relating to graffiti. I thought that your blog had good information in it, it (*sic*) helped me at least understand different themes in the book i (*sic*) never looked at. The only part in the blog I quesitoned (*sic*) was when you said "That's how I was told to write this blog. There are many things that I could talk about." I felt like those 2 sentences were something when your (*sic*) writing you should just keep to yourself because it almost sounds rude and unprofessional (NO OFFENSE KENSEY). I think over all the blog was a success.

We were surprised that this and many comments like it were not labeled as a stamp. When asked about it, the student who posted this replied that she wasn't going to give a stamp unless someone really deserved it, and since this comment points out some flaws, it did not deserve a stamp. This student later changed her mind and went back to stamp the post. This indicates that the students are taking the stamps seriously and only want to award them to those who truly deserve it. While the students have not stamped as much as we had anticipated, those who gave and received stamps generally tend to write more and explain their points more carefully in subsequent posts.

Providing Relevant Resources: While the alternative school provides each classroom with class sets of netbooks and student accounts to access the Internet, the teacher has done a lot of work to integrate the Ning into her classroom practice. Prior to this assignment, students had been introduced to the Ning with informal discussion forums about various topics being covered in the class. While the students had not blogged before, they were familiar with the site and had experience navigating it. In order to introduce them to blogging, the teacher first discussed with the class what blogs are and how they are used in social media, and asked the students to think and talk about times when they might blog about a topic. The teacher then provided the students with some example blogs about some celebrity news the students had been overheard talking about the week before the unit began. Students were asked to reflect on how this piece of writing was different than a traditional essay, and how and when this form of writing might be more effective and appropriate than the essay format.

Summative, Formative, and Transformative Functions of Assessment

The formal leveled Competency badges awarded by the teacher serve a summative function in that the students receive an indication of their performance for this unit, but they also serve a formative function because students can be awarded a badge more than once. Because each badge has a personal comment specifying why the student earned the badge at a certain level, the student has a concrete idea of what they have done and what they can do to move up to the next level.

The peer-awarded stamps serve a formative function through the comments attached to them, but the truly exciting element of the stamps is their transformative function. Instead of reading and critiquing each other's writing, the students write reflective comments that reveal their critical, consequential, and collaborative engagement with the complex concepts. This means that the space in which the students are participating allows the students to constantly assess their own engagement with the concepts while providing opportunities to adjust their behavior as they see fit.

"Knowing" and "learning" in this classroom take on the form of collaborative participation, and the assessment practices allow students to learn as they are being assessed at different levels. These broader views of knowing, learning, and assessment are becoming more important as networked learning becomes an essential skill and students' needs change with the ever-changing technological advancements and integration of technology in the classroom. It seems by embracing these broader views of knowing, learning, and assessment, it is possible to promote participatory, connected learning in networked settings within competency-based instruction.

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