Using Web 2.0 Tools in the Classroom to Promote Higher Achievement and Deeper Thinking

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March 31, 2014

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Summer 2012

**Description**

Lambert High School is located in Suwanee, Georgia. It is the southernmost high school in the Forsyth County School district. Since opening in 2009, Lambert High School has always met the criteria for Annual Yearly Progress (AYP), and was awarded the State of Georgia Silver Award for Excellence in 2010-2011 (FCS Public Information and Communications Department, 2011). The Lambert High School population is predominantly White and affluent, with approximately 77% of the student population self-identified as White and less than 7% of the population qualifying for free or reduced lunch (Forsyth County Schools, 2013). The teacher population is similar to the student body.

The original plan for this capstone experience was to take place during the Spring Semester of the 2013-2014 school year. Additionally, the focus of the capstone experience was to be equal training time devoted to using the new online learning management system (LMS), called itslearning, and incorporating Web 2.0 tools effectively into the classroom. Based upon a previously conducted needs assessment and through collaboration with the Instructional Technology Specialist, it was determined that these two areas of focus would address the needs of both teachers and students at Lambert High School.

Shortly before the school year began, there was a change in teaching responsibilities. Part time Assistant Instructional Technology Specialist (ITS) duties would be added to part time French teaching responsibilities. Instead of teaching five periods out of seven per day only three periods of French would be taught and the other periods would be spent as an ITS. Modifications to the capstone project began immediately. I had already attended training throughout the summer on itslearning, but knew that many teachers would not have taken advantage of these training sessions offered by the district. I also knew that our school was scheduled to host a tour

in March to highlight our Bring Your Own Technology (BYOT) initiative. As an ITS, focus

would need to be placed first on training teachers on the expectations and uses of itslearning and

then to later focus on tools to assist with participation in the BYOT Tour.

      With assistance from the district office ITS staff, training sessions were offered on

itslearning during pre-planning, and then once per month in the fall. Beginning spring semester,

training sessions were held January through March. The first training session included a poll

asking teachers to rate their experience so far with using itslearning on a scale of 1-5, with one

being "I'm lost" and five being "I could run this meeting." Training sessions included topics

such as how to merge courses, use the planner feature, use itslearning to communicate with

students and parents, and organize content. Other training sessions focused on the variety of

content that could be added to a course in itslearning and the best practices involved with using

each type of content. Each training session lasted approximately 50 minutes and was offered

during each period of the day, for a total of seven times for each training session. Training

sessions were delivered during the four periods of the day not spent teaching, and the other three

sessions were delivered by a representative of the district ITS staff. Fortunately, the staff member

delivering the other training sessions is well known to the staff and administration at Lambert

High School. Therefore, close collaboration to design the training sessions was possible and

consequently identical training sessions were delivered to all staff.

      Beginning in November, the focus of planning the technology training sessions began to

shift toward the use of Web 2.0 tools to assist teachers in their participation on the school's

BYOT Tour. After inviting the staff to participate and collecting responses regarding their

interest in participating, meetings were with 23 teachers to brainstorm, plan, and develop their

lesson for the BYOT Tour held on Thursday, March 27, 2014. Many wanted to use a Web 2.0

tool in collaboration with a facet of itslearning and so received training on how to use additional facets of itslearning in an effective way to manage student learning and collaboration. The primary Web 2.0 tools were presentation tools such as Prezi and VoiceThread, polling tools such as Socrative, and discussion tools such as Today's Meet. The primary itslearning tools were embedded Assignments and Discussion Boards. These sessions to brainstorm and develop the lesson plans took place during common planning periods, as well as before and after school. Each session lasted approximately 30-45 minutes. Meetings were held with each teacher at least two times, once to brainstorm, and again to plan.

Prior to the tour, the district developed a wiki for visitors to see the demographics of each school on the tour and the activities that would be would be available. As lead planner for the BYOT Tour, a request was made to the district office to update the school's fact sheet to load onto the first page of the wiki. A Google sheet was developed to document the activities and lessons being developed by the teachers to display the Web 2.0 tools being used. Tour guides were lastly coordinated for each group from the Lambert High School COMPASS group of student ambassadors.

On March 27, 2014, Lambert High School was host to 160 educators and business leaders from around the state. When the group arrived at LHS, they began their time with an introduction and welcome to the school by Dr. Gary Davison, principal, and Valerie Kaye, lead ITS. The visitors had been previously divided into ten groups of 12-15 members each; district office staff and school board members were free to wander the building as they chose. After the introductions, the groups departed to visit the school led by two student ambassadors per group. During the hour they had to visit LHS, the groups had six 10-minutes observation windows. Each group had two to three pre-scheduled observations in a classroom, two to three free

observation periods to visit classes of their choosing, and a scheduled time to visit our 21st

Century Media Center. At the end of the hour of classroom observations, everyone reconvened in

the auditorium for a brief period of time in which they could ask questions specific to Lambert (a

more detailed question and answer time was provided with an administrator, a teacher, and a

student from each participating school at the end of the tour).

      Unfortunately, the district office leaders of the BYOT Tour provide no avenue for

feedback upon conclusion of the tour. In his article "Seven Keys to Effective Feedback," Grant

Wiggins explains that feedback "is information about how we are doing in our efforts to reach a

goal." He goes on to elaborate on each of the seven essential elements of helpful feedback,

including the fact it must be goal-oriented and timely (2012). Based upon these suggestions, a

short survey was created using Google Forms and placed on the Lambert High School BYOT

wiki for visitors to provide feedback. However, despite numerous advertisements of the survey

during the follow-up time at Lambert, at the question and answer panel at the end of the tour, and

on Twitter, none of the visitors responded to the survey.

      A survey was also delivered electronically via the LMS to staff at Lambert High School.

While only 23 staff members officially participated in the tour, the entire school was impacted by

the visitation and so the survey was sent to all faculty and staff with 47% of the staff responding.

Of those responding, 81% felt that tour positively impacted classroom performance, 11% felt

that the tour negatively impacted classroom performance, and 8% felt that the tour had no effect.

Regarding the value of assistance prior to the tour, 90% of the teachers who responded that they

had actively participated on the tour also felt that the collaboration sessions held prior to the tour

were helpful to extremely helpful.

The survey also asked faculty and staff how many of the offered training sessions they attended, what prevented them from attending more, and what training sessions they would like to see offered the following year. All respondents indicated that they had attended a minimum of five training sessions, with many responding that they had attended seven or more. The most common responses to not attending more were lack of time or absence on the day that training was offered. Overall, those who took the survey indicated that they would like to see training sessions focused on using the LMS to assess students, using Web 2.0 tools such as Socrative to assess students, and integrating Web 2.0 discussion and blogging tools such as VoiceThread and Weebly.

As a result of this capstone project, I learned a variety of skills needed to model and facilitate technology integration in the classroom from the point of view of a technology leader, rather than that of a teacher leader. Throughout my experience as a teacher, I have often had the opportunity to collaborate with other teachers on content and technology integration. However, as a technology leader, it was necessary to instruct teachers who were at all stages of technology integration, in both their professional and their personal lives. It became vital, therefore, to maintain an attitude and disposition that would project calm and confidence throughout the day. It was also important to have walked through a variety of troubleshooting scenarios before beginning each training session in order to be able to confidently answer questions and assist teachers as they experienced difficulty.

Training and collaboration sessions also required a level of patience and willingness to watch teachers struggle that has previously been uncomfortable for me. I have always been able to see the value of allowing students to struggle to learn a new concept in my classroom. As Alix Spiegel reported on National Public Radio in November 2012, research has shown that

struggling and persevering allows a student to show that they "have what it takes emotionally to resolve the problem by persisting through that struggle." On the other hand, I have often felt uncomfortable and impatient when watching teachers struggle in the past and as a result, have stepped in and done it for them.

This year was important for seeing my classroom in a different light, one where my students are adults rather than adolescents, but where the value of perseverance is just as essential. Once I recognized that I was still in the classroom, I was able to apply all of the other concepts and skills I had developed as a classroom teacher to the training and collaboration sessions. Classroom management skills and lesson plans that include collaboration and hands-on application are useful tools that carry over well. In order to be an effective technology leader, one must also be an instructional leader. In *The Principal as Technology Leader*, Theodore Creighton states that when implementing new technologies in a classroom or in a school, one must keep "teaching and student learning as the guide and driving force behind it all (p. 3)." Leaders must facilitate integration of new technologies in a manner that will improve and increase student learning and student engagement without placing an undue burden on teachers. In order to do that, one must be fully knowledgeable about both the curriculum and how the technology will support the learning goals of all classes.

In comparison, an effective technology leader must also serve as coach and a mentor to those teachers and administrators who struggle with technology adoption. Too often, teachers do not actually resist the change presented by the new technology – they resist poorly implemented changes. As Jim Knight expresses in his book *Instructional Coaching: A Partnership Approach to Improving Instruction*, the vast majority of teachers will not only implement appropriate changes, but will also "embrace" new programs and technologies that will "improve students'

experiences in the classroom" when being given the appropriate tools and support (p. 3). This means being empathetic, sympathetic, and encouraging. This also means that while some new ideas will stem from the technology leader, others will grow out of a need expressed by the classroom teacher, or the students.

Throughout my work with teachers this year, I encountered teachers who were at all stages of the change theory adoption process. A small minority of teachers were laggards who had actively resisted using Angel, the previous LMS, and had every intention of resisting itslearning, the new LMS. In their opinion, the fact that Angel had been replaced simply proved that they were correct in their assessment that it would not last (it lasted nine years) and so it was not worth the time to learn how to use itslearning. However, a large portion of teachers fell in the late to early majority category. The way that I divided these teachers depended on how much time they spent mourning the *death of Angel* or wishing that the school system would return to using Angel. Those who recognized that Angel was no longer an option fell into the early majority and were often paired with teachers who were laggards or late majority adopters. A smaller percentage of teachers also could be classified as early adopters and so were used as change agents. Being able to recognize and classify teachers in this way became an important classroom management skill, as it was useful when developing and planning technology-based professional development to understand the adoption makeup of the teachers.

If asked to advise others attempting to facilitate professional learning that encouraged technology integration for the purpose of obtaining higher levels of thinking and achievement by students, I would encourage them to research the specific technology tools that they wish to present to their staff, as well as specific applications for each content area. It is important for teachers to be able to visualize how they will use a particular tool in their classroom. It is not

enough to be told that Socrative can be used for informal assessment of student knowledge. Instead, as a technology facilitator and instructional coach, the presenter must prepare questions in advance for each content area and ask teachers to participate as they learn. A good model applies the Constructivist and Social Cognitive theories of learning: begin by showing what the technology can do (what teachers will learn), then instruct teachers how to use the tool as they create their own informal assessment using Socrative, and conclude by asking for volunteers to deliver their assessment to the other teachers in the training session. In this way, teachers experience the tool as both teacher and student, which will in turn assist them when they integrate the technology into their lesson.

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