

Creating a Collaborative Online Learning Community For Art Teacher Professional Development: The Ning, The Wiki, and How We Got There.

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**Creating a Collaborative Online Learning Community
For Art Teacher Professional Development:
The Ning, The Wiki, and How We Got There.**

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Artists throughout time have collaborated on their work from sharing ideas, critiquing, and even working on each other's work. From the Renaissance to modern day, artists have been relying on each other for input and support. Collaboration battles the isolation felt when creating on your own. Just as great artists collaborate, art teachers should collaborate on their work. It has been proven that collaboration is essential to highly effective schools, and contributes greatly to student learning.

Being an art specialist, I feel isolated from the other art teachers in my school district. The problem is that art specialist teachers are all on different campuses. Being in different schools around the district it is hard for us to find time to meet up face-to-face. There is no time built into the year for this collaboration to happen. There is no money to pay for the art teachers to meet up after school, or to get a sub in order to collaborate face-to-face.

Collaboration between like-disciplined teachers has proven to be an essential part of effective teaching (Scribner, Sawyer, Watson, & Meyers, 2007). In our district, there is some resentment about this because non-specialist (e.g. math, English, science) teachers get forty-five minutes every day in order to collaborate with their peers. In order to create a community of art teachers for our district, I developed a plan to help facilitate collaboration between the art teachers using online collaboration tools.

In one of the initial surveys, given to the participants at the first training session for our online collaboration, I asked the art teachers whether they felt isolated in their school. A majority of the middle school art teachers said they did feel isolated. In addition, all of them answered yes when asked if they feel they are at a disadvantage

because they do not have time to collaborate with other specialized teachers (Pilot Survey, March 2010, Appendix A). These results mirrored my feelings and reasons for setting up an online collaboration network and for this study.

I am looking to improve a collaborative online community between art teachers within the same district by investigating what factors these teachers have seen as the supports and the hindrances of the online collaboration.

Research Questions

How do art teachers in the same district view the effectiveness of using an online social network, a Ning, as a collaboration tool for art teachers in the same district? What factors do the teacher participants perceive as supporting or hindering the online collaboration? How has the overall process of the online collaboration unfolded?

I created an online learning community, using the platform of a Ning network, in order for the art teachers in my district to collaborate online. A Ning is an online collaboration tool that consists of a discussion forum and personal pages where participants can individualize their profile (Appendix B). Participants were trained on the basic functions of the website during a face-to-face training session held on March 25th, 2010.

The issue is the website was being utilized by only two or three participants on a continual basis. The challenge is to get people to effectively use the site to collaborate and form an online learning community. For these reasons, I sought to investigate factors that participants perceive as supporting or hindering the Ning.

In order to create an online community that is beneficial to the participants, this study also investigates how we can improve our online collaboration. In response to

teacher surveys and research, some new components were added. One was an online manual for the Ning (Appendix C) to increase participation on the online forum. Also, a new online tool, called a Wiki, was introduced (Appendix D). A Wiki is another online collaboration tool where participants can create content and edit each others content online. It was implemented as a more suitable tool for sharing and collaborating on various learning supports. In looking at what effects these changes have had on our online collaboration network, we can see that new issues arise, new hurdles tackled, and a better online community being formed.

In studying the process of creating this online environment, I hope to improve future implementations of online collaboration tools and evaluate the lessons learned from the online tools and participants of this study.

Literature Review

Much has been discovered in the last five decades about how humans learn. “Students learn best when they are actively engaged in meaningful activities; when they collaborate with peers, exchange ideas, and provide and receive peer feedback; when they reflect critically on what they are doing; when they work on real-world, challenging, authentic activities; when their work is constantly evaluated; and when they are intrinsically motivated. But we tend to forget that teachers learn best in these ways too,” (Vraidias, & Glass, 2004, p.2). Good professional development should mimic good teaching as we reshape it for the 21st Century. Brown and Adler (2008) claim that the philosophy surrounding modern education is diverting from the Cartesian “*I think therefore I am,*” to the social “*We participate, therefore we are*”—interlacing the ideas

of community and learning.

Teacher collaboration is one of the cornerstones of effective schools. “In the course of working together towards shared goals and of finding solutions to the problems encountered in the process, participants contribute differentially from their existing expertise and take over and transform for their own use the skills, values and dispositions that they find effective in the contributions of others” (Wells, & Claxton, 2002, p.7). This notion of bettering each other by re-tooling ourselves based on the contributions of others allows collaborative communities to grow and evolve in ways not possible with traditional top-down prescribed professional development.

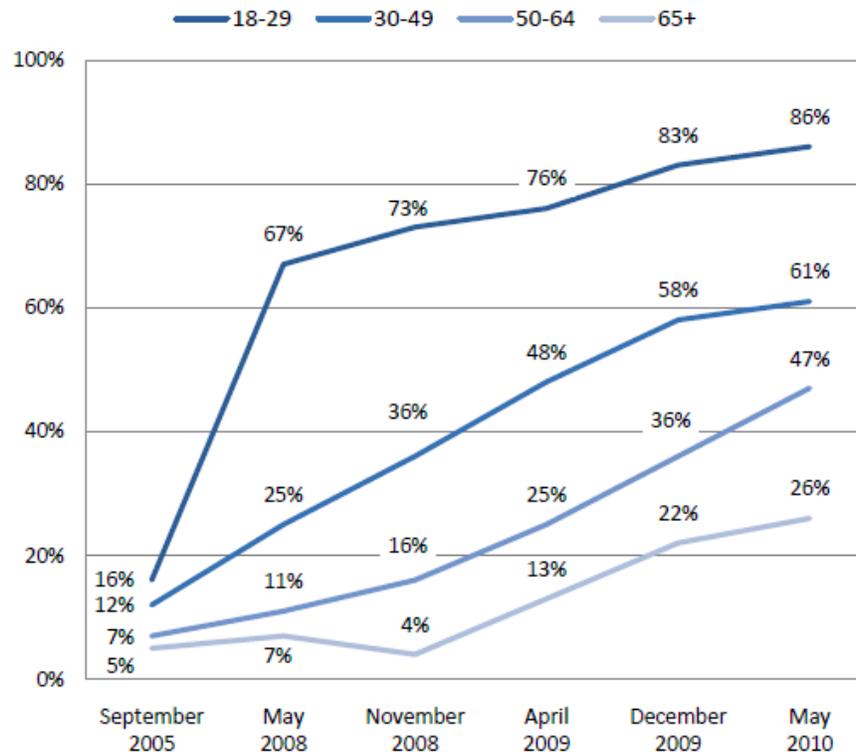
The issue comes when there is no time to meet, or there are physical restrictions, like distance, interfering with the ability to collaborate. This is why social media has become the tool of the 21st century learning community. Wells continues to say “these new media open up new opportunities and demand the development of new mental competencies and attitudes, or require forms of support, which may differ from those exercised or afforded by traditional education” (p.10). By building on teacher’s own contributions and participation, at their own pace, from various locations, the teachers gain essential professional development as well as learn skills that will most likely be job requirements within five years (Tapscott, & Williams, 2006).

While social media use has grown dramatically across all age groups, older users have been especially enthusiastic over the past year about engaging in the social networking tools. The Pew Internet & American Life Project recently published a report on social media and older adults. The researchers suggest that, “although email continues to be the primary way that older users maintain contact with friends, families and

colleagues, many users now rely on social network platforms to help manage their daily communications -- sharing links, photos, videos, news and status updates with a growing network of contacts” (Madden, 2010, 2).

Social networking use continues to grow among older users

The percentage of adult internet users who use social networking sites in each age group



Source: Pew Research Center's Internet & American Life Project Surveys, September 2005 - May, 2010. All surveys are of adults 18 and older.

(Madden, 2010, 3)

The teaching arena is changing in response to the pressures from new digital technologies and new forms of digital media. According to the second edition of the *National Educational Technology Standards for Teachers 2008* (NETS-T), there are new standards stating that teachers should be able to teach and model the effective uses of digital media to “collaborate with students, peers, parents, and community members” and

“communicate relevant information and ideas effectively using a variety of digital age media and formats,”(International Society for Technology in Education, 2009). In order for teachers, especially those who are not digital natives, to achieve these standards of facilitating, designing, developing, and modeling using digital tools, in both face-to-face and virtual environments, they must be educated on how the digital technology works and how it can impact their teaching.

Since 2002, the New Media Consortium has been “collecting research that identifies and describes emerging technologies likely to have a large impact on teaching, learning, research, or creative expression within education around the globe (3).” Each year they pick six top ideas that will have the most impact and give a time-to-adoption horizon. These six are published each year in the *Horizon Report* (Johnson, 2010). Collaborative Environments were on the report in 2009 and still appear on the report in 2010 as being one of the most important in education with the adoption time less than a year (13).

With the evolution of simple to more complex technologies supporting collaboration, there is now a wide range of online collaboration tools to choose from. These tools are mostly open source resources, meaning they are free to use (but sometimes the free version is a limited version). You can find tools better suited for the collaborative creation of content (Wikis, blogs, Google Docs) and some better suited for communication or sharing of existing content (Ning, Moodle).

The central functions of a discussion forum, like a Ning, are a means of posting messages, a repository for storing them and an interface for navigating through the

threads of messages and replies (Kear, Woodthorpe, Robertson, & Hutchison, 2010).

Teachers can attach pictures and documents to the posts just as they would in an email.

A Wiki page is an online tool that enables the user to write, or edit, other invited users Wiki pages. Users do not need to have a web-editing program to create web pages anymore. In addition, Wikis allow multiple people to collaborate on the same web page to create content using text, hyperlinks, pictures, videos, and widgets that all show up on the page.

“It is increasingly rare to find a collaboration that does not use a wiki in one form or another, “ (Johnson, 2010, 13). The Horizon report also mentions how online communication tools are converging with social media in workspaces with the use of tools like the Ning. “These tools can be customized and personalized, and membership can be open or restricted (same as Wiki), but the primary purpose is not joint content creation or remixes, but communication within a group (13). There is more of an emphasis on the exchange of ideas and the sharing of knowledge with the Ning. When the activities on the Ning lead to action, then the Wiki is brought in to collaboratively create the solutions (Johnson, 2010).

In a recent study for the *Open ED 2010 Proceedings* sponsored by the International Council for Open and Distance Education, the authors found that using an open educational resource, in particular a Ning, in a teacher network “supported teacher knowledge sharing, collaboration, and access to adaptable resources to meet classroom needs” (Petrides, L. & Middleton-Detzner, 2010 p. 380).

When we collaborate online as teachers we are forming an online community. It is important to bring to light the notion of community. In order to have a community

online, we need to understand the two faces of community. One side is “the concept of community associated with a feeling of being part of and sharing something positive with others” (Lindberg, & Olofsson, 2010, xvii). The other side “showing the community as threatening our autonomy, demanding us to give up our sense of individuality” (xvii). If we are going to forge an effective online collaborative community, we are going to create an environment where sharing and inclusion are supported while finding a way to protect all of our unique qualities.

Methodology

Overview of project

The study used the online interface of a Ning social network, as well as a Wiki site, to facilitate online collaboration. I researched and set up both sites before they were introduced to the participants. Security and privacy issues were researched and discussed with participants. I also secured permission from the school district to conduct this study and to set up these online collaborative tools.

The Ning was introduced on March 25th, 2010 and is still currently in use as a collaboration tool for our district art teachers. There were a total of 19 participants on the Ning site, all art teachers from the district. During the pilot phase of the study, the participants were introduced to the Ning site (Appendix B) and trained on its primary functions during a face-to-face training session. In addition to the pilot training session, a pilot survey (Appendix A) was administered in order to gain information regarding prior knowledge, skill level and comfort level with technology, and demographic information.

As requested in the training session and via email the participants were emailed a link to the online manual that was created for them with instructions on how to print off the pages they needed in September 2010 (Appendix D).

In December 2010, Survey One, the Ning Revision Survey, (Appendix E) was sent out to the participants to help us figure out whether the Ning was an effective collaboration tool. An invitation (Appendix F) to the re-training session set-up for January 5th, 2011 was sent out in December. The training was necessary to go over the survey responses, re-acquaint us with the Ning and introduce a new strategy to increase online collaboration between the art teachers—the Wiki (Appendix D). In March 2011, the second survey (Appendix G) was administered to gather data on the effectiveness of the online collaboration tools, both the Ning and the Wiki. In addition, three participants were selected for semi-structured face-to-face interviews in order to gain some more depth to the participants' perceptions.

Throughout the study, a self-reflective journal (Appendix H) was kept which included some illustrations (Appendix I) based on the training sessions. The journal has helped in looking at the process both the teacher participants and the site administrator have gone through.

The data was analyzed and themes and connections made visible using a Mind Map (Appendix J). The findings and process were compiled into this report submitted for completion of the requirements for a Master's in Education at Washington State University Vancouver.

Consent Form

When signing up for the site in March 2010, the participants digitally signed a consent form allowing the data collected to be part of my study. All names are omitted or changed to protect identity. The middle school art teacher participants were asked again to sign a consent form to continue the study in December 2010 (Appendix K). They signed the consent form emailed to them, and sent the form back to me. I photocopied it and returned a copy to them for their records.

Participant Description

The study was conducted using art teachers who all teach middle school art (5th-8th grade) within the same district. There are six middle schools in our district and every school's art teacher participated in the study, except one. As the project coordinator, I participated in the study, but did not take any of the surveys in order to get a good reading of what impact my actions were making. Although, the online collaboration sites are open to primary, middle school and high school teacher participation, this study only concerns itself with the middle school teacher participation.

The participants were all female teachers. Two were between 40-50, and three were over 50. None of the participants were using a class webpage, Wiki, Ning or blog in their current teaching assignment (Pilot Survey, March 25, 2010, Appendix A), and most have never even used one. The majority of the participants did not even know what a Ning or a Wiki was. Most have not even used Facebook (Pilot Survey, Appendix A).

Data Collection Instruments Used

Throughout the study, numerous data collection instruments were used. They include: two different surveys, three semi-structured interviews with three participants, and an observation of the re-training session. A self-reflective narrative, and the digital artifact, the Ning itself, was also used to collect data. Google Analytics, a web-based site usage analysis tool was set up to monitor the number of times the site was accessed (Appendix L).

Instrument Design

An action research cycle plan (Appendix M) was drawn up to keep the study on schedule and responsive to the research questions. From this plan I was able to create survey questions and interview questions, as well as plan out the re-training session, ensuring that I was maintaining the focus of the study.

The instruments used in gathering data for this study emerged from data taken from a pilot study begun back in March 2010. The observation from the original training session and the pilot survey gave me vital information on the technical level and demographics of the group of participants.

Survey One.

Ning Re-vision Survey, December 2010 (Appendix E).

Some of the same questions were used from the Ning Pilot Survey taken back in March of 2010 (Appendix A), and some were added after examining the data from the Ning artifacts. The questions were coded as they were written in order to maintain the focus of the study. The first question reminded them that they needed to sign the consent

form before continuing. The participants were thanked for their participation and reminded that they could skip any questions they did not feel comfortable answering.

The questions of the survey were formatted using a variety of formats. Four-point Likert scale questions and checklist questions were used to gather data. I followed up some open-ended questions with checklist questions seeking the same information. I did this to give the participant the chance to give me some information that maybe they could not think of on their own. When yes/no closed ended questions were used, they were followed up with an open-ended response option to explain why the participant answered that way. Unstructured open-ended questions were also used to allow the participants to freely state answers in their own words. (Appendix E)

The questions were created to investigate low participation levels, comfort with the technical aspects, and hindrances and supports in regards to the Ning. I included a question asking the participants how often they looked at the site, but did not post anything in order to help me investigate the participation issue. I also asked the participants to rate their participation on the Ning. Questions seeking the benefits of the online collaboration in regards to student learning were included, as well as restating the goals of our online collaboration. The advantages of collaborating online and face-to-face were also explored. (Appendix E)

I included an open-response question at the end where any question, concern, or comment could be placed. Demographic information regarding age range, adeptness with learning new technologies and what grade level taught were added in order to filter the responses effectively.

Survey 2.***Creating an Online Collaboration Survey (Appendix G).***

This survey was longer than the previous surveys, twenty-two questions. Each new page of the survey had a famous quote concerning collaboration on it in order to reward the survey taker for going on to the next page. Some of the questions were the same as the previous survey in order to compare the two answer sets. Others asked more specific questions based on emergent data received from the previous instruments of data collection. The questions were ordered from the least sensitive to the more sensitive questions about fear towards the end. Again, the participants were thanked for their participation and informed that they were able to skip any question they felt uncomfortable answering. (Appendix G)

Some questions were formatted using a four-point Likert scale in order to see trends in perceptions easily. Some of the Likert-scale questions also had open-ended follow-up questions to give space for any explanation necessary. If the question was formatted in a yes/no closed ended question, there was an additional open-ended space to ask “why?” or “if yes, please give me an example.” Open-ended questions were also used in order to give the participants space to craft their own answers. (Appendix G)

I set out to see if I could find an increase in comfort level and skill level when dealing with the online tools. I also wanted to see if technological integration into the classroom had increased from the first pilot survey.

I also set out to explore the fear and or anxiety expressed by the teacher participants during the re-training session. I wanted to explore the participants’ comfort level in regards to sharing lessons online versus face-to face, and in regards to letting

other teachers critique, edit, and add content to the site's they create. I also added a trust-measuring question inquiring about the participant's confidence that the other participants would not make the information they share public knowledge without their consent. I wanted to explore the participants' ideas concerning ownership of lesson plans as well.

In addition, the second survey allowed me to ask questions about the culture of their school and the culture of our online collaboration. I wanted to investigate the participants' perceptions of the online collaboration and see if I could compare it to the participant's perceptions of their current school culture.

Investigating the hindrances and supports they had, or needed, throughout the process of collaborating online was also addressed in the survey questions. I also questioned the teacher participants again how they were improving student learning through the use of the online collaboration sites, or how they plan to if they haven't been able to yet.

I added an open-ended question at the end asking for comments and another asking how I, the site administrator, could have done to better implementing the Ning and the Wiki. Demographic information asking age range and what level of school they teach was also included to help with sorting. (Appendix G)

Interviews, March 2011.

Three participants were chosen for semi-structured, face-to-face interviews to gain some more insight on our online collaboration network. The participants were chosen based on their level of participation on the online collaboration sites and their anxiety level.

One interviewee was chosen because she was the one who participated the most on the collaboration site. The second choice was one who had a lower level of participation. The final selection was the participant who has made the most progress in dealing with her fear of computers. The participants were informed they had been chosen for an interview and the interview date was scheduled at a face-to-face district in-service meeting.

The open-ended interview questions (Appendix N) were coded as they were developed based on emergent data collected in the previous instruments. Some of the questions were the same questions asked on the last survey. I did this in order to give some depth to the previous answers and to give the participants more opportunity to verbally share a story. When asked on the survey whether the participant's believe they own their own lesson plans, the responses were between one word, "no," to one sentence stating their opinion (Survey 2, Appendix G). When asked during the interview, each participant spent at least 3 minutes discussing the topic of ownership (Appendix O, P, Q).

I structured the interview to flow from less sensitive questions to more sensitive questions place at the end of the interview. The questions were grouped into like-topic sections to allow the responses to complement each other. The first few questions were summary questions to allow the interviewee the opportunity to verbally review the whole process. I was sure to ask the interviewee if they wanted to add any further comments or questions and if they thought I could have done anything better when implementing the Ning or the Wiki.

Self-reflection Narrative.

A self-reflective narrative was written by me in order to study the participatory action research. This narrative was written as a reflective journal over the course of the study to evaluate the facilitator's performance and look for ways to improve in the future.

(Appendix H)

Data Collection**Survey One.*****Ning Re-vision Survey, December 2010.***

The Ning revision survey was offered to all 19 Ning Participants. A link to the survey, hosted by SurveyMonkey, was emailed out to the participants along with the consent form (Appendix K) and the invitation to the Re-Training Session (Appendix F).

In order to ensure the participants remembered the guidelines laid out in the consent form, I reminded them before they even began the survey that, "You have the option of skipping any questions you feel uncomfortable answering." (Survey 1, Appendix E) I also added that, "I would like to encourage you to answer all the questions in order to give me enough data to better our collaboration experience. I appreciate your involvement in this study and your time in taking this survey," in order for the participants to feel appreciated and involved in the outcome of this study. I also asked the participants to "Please take this survey before our re-training session on January 5th, 2010" in order for the data to be analyzed and reported back out. The participants were not asked to give their name, only what grade level they taught. (Appendix E)

Observation.***Re-Training Session, January 5th, 2011.***

An invitation was sent out in December 2010 inviting all members of the Ning site to come to a Re-training Session on January 5th, 2011 (Appendix F). I invited the nineteen art teachers from my district who had already signed up for the NING site. Of the nineteen, only the six middle school teachers showed up. I did do one-on-one training with one primary school teacher at a later date, but I am not including that data in my study.

The training session took place at an in-district middle school's computer lab after school. The observation was not videotaped but notes were taken by one of the participants. In addition, observation notes were written right after the training session, capturing the essence of the session (Appendix R). A drawing was made after the re-training session in order to capture some of the comments and feelings of the participants and me, the facilitator (Appendix I).

The training session included a review of the Ning Revision survey results, a brief review of how to use the Ning, and the changes that were made to the structure of the Ning site by the company. The new Wiki page (Appendix D) was introduced and the participants were trained on how to use the site as well as how to create and link their own sites to the collaboration site. A previous email had been sent out informing the participants of a new online training manual (Appendix C) I had created for them. I reminded them of this manual during the Re-training Session with hopes they would use it. I informed them that they could print off whatever page they were having trouble with and use it as a reference.

Survey 2.***Creating an Online Collaboration Survey, March 2011.***

This survey went out on March 3rd, 2011 to the five middle school teachers this study focuses on. The survey was posted on the Ning, the Wiki, and then emailed to those participants who had not yet completed it by May 5th, 2011. I limited the number of surveys to the middle school teachers so that I would be able to have a smaller sample size. This way I was able to compare this survey's answers to the previous survey that had been filtered to only show middle school teacher responses. The survey was distributed using SurveyMonkey, just like the first surveys. The survey included a reminder of the option of skipping any questions the participants felt uncomfortable answering in accordance with the consent form. (Appendix G)

Interviews, March 2011.

The interviews took place on three separate days all within the same week. I traveled to the interviewee's school and the interviews took place in each of their art rooms to ensure a professional comfort level necessary. The interviewees were presented a copy of the questions in order to see where we were in the interview process and to add clarification to the questions being asked.

Interviews were videotaped, with signed consent (Appendix S), to aid in transcribing them and capture the inflection of tone in the participants voice. In accordance to the consent form, all identifying information was replaced with participant codes or omitted from the transcriptions.

Each interview provided a different view of the online collaboration experience. Although these profiles allow me to look into how the program affected these individuals,

I am careful not to extrapolate conclusions from these three people and place those conclusions on the whole group.

Data Analysis

How do art teachers in the same district view the effectiveness of using an online social network, a Ning, as a collaboration tool for art teachers in the same district?

In order to examine the effectiveness of the Ning, I reviewed the initial pilot surveys taken when the Ning was started, March 2010 (Appendix A), and the Ning Revision Survey the study participants took in December of 2010 (Appendix E). I also reviewed current literature published concerning collaboration and online communities. Through looking at the digital artifacts on the Ning (Appendix B), I was able to analyze the data and form conclusions as to whether the Ning was an effective collaboration tool for our group.

A code sheet (Appendix T) was developed prior to the first survey and artifact analysis. The code sheet was added to as the study continued when more focused themes emerged. Previous data already coded was recoded after the new themes added to the code sheet in order to see if any new connections could be made.

Digital Artifacts. The Ning, March 2010-March 2011.

In order to glean exactly what was being discussed, I extracted each discussion topic and the replies into a spreadsheet. From this document I was able to see who was posting and how many times they were posting. I was also able to code the discussions in order to see what types of information was being shared via the Ning. (Appendix U)

I also used Google Analytics to measure the site usage. By looking at how many times the sites were accessed, which pages were viewed the most, and on average how long participants were staying on the site I was able to cross reference the survey responses to actual use data. Google Analytics was a nice tool to analyze the private, password-protected sites, the Ning and the Wiki, used for collaboration. (Appendix L)

The issue with Google Analytics was when looking at the public wiki site used for the online Ning manual, the report shows some strange site-visit numbers and peaks in site visit numbers come from IP addresses in different countries. This is an interesting component dealing with security of data on a public site. This reaffirmed the decision to make our collaboration sites private until more research can be done concerning the vulnerability of the online data.

The analysis of the Ning, as a digital artifact, revealed interesting clues that changed my opinion about the lack of participation and the usefulness of the tool in regards to collaboration.

First off, I coded the participants' names with coded identifiers, Participant A through Participant G. These coded identifiers remain constant throughout the study. I created a graph showing the level of participation of each user. I omitted the data from the day of our training session because I am more interested in what the participants would do when not told what to do. (Appendix U)

It was also interesting to see what the participants were posting. I coded the posts made and then tallied the frequency of the codes. I created a pie graph to show the results (Table 1, Appendix V). This allowed me to see if we were using the online

collaboration site to develop our professional community and support each other. It also allowed me to see where we were falling short of our original goals.

Survey One- Ning Revision Survey, December 2010.

The data received from the Ning Revision surveys (Appendix E) lead me to research solutions to the walls we were hitting with participation. Although the survey was given to all nineteen Ning participants, only fifteen of the surveys were returned. In order to correlate the research, the survey was filtered down, using SurveyMonkey's filters, to only the middle school teachers' responses. The survey data was downloaded from SurveyMonkey in both the spreadsheet form, and the .pdf format. I read through the participants' answers looking for patterns or themes to emerge. I also tried to filter out the two age groups I had, both 40-50 and 50-60, but I saw no different patterns when the age groups separated.

After reviewing the Ning Revision Survey, and investigating the data collected from the actual Ning itself, it became apparent that we needed to try something that was more "user-friendly" in order to share knowledge easier.

The teachers needed something easier to use that took less time. I also took the goals of our collaboration into account when steering the group into the use of a wiki page instead of relying solely on the Ning.

What factors do the teacher participants perceive as supporting or hindering the online collaboration?

There were factors that were impeding the effectiveness of our online community: one being time, another being usability. We attempted to solve these factors by

implementing a different kind of Web 2.0 technology, the Wiki page (Appendix D).

Through teaching the participants how to create their own website by using a Wiki page, I had the opportunity to show them how we can collaborate online more effectively.

I went looking for something easier to use that would match up with the goals of our collaboration. From the Ning Re-vision Survey (Survey 2, Appendix G), many teachers were looking to share lesson plans and talk about standards, but one of the biggest hang-ups was time. No time to meet up online because everyone is struggling to get her own job done. No time to help others, even though there is a want to.

When the Ning was first introduced the teachers had expressed the excitement over the Ning thinking that they could create their own class websites to support student learning and professional development (Pilot Survey, Appendix A). That thought had lingered in my head while attempting to get the teachers to start communicating with each other over the Ning rather than email conversations. If the teacher's see the benefit of creating their own class websites, maybe I should teach them how to use and make Wiki sites. When the survey results showed me that all the teachers had no time, I saw this as one of the main answers to creating a more collaborative network.

Observation, January 5th, 2011.

The re-training session was a great experience where I could see and hear the fear and anxiety of the participants, as well as hold their hand and see their excitement from creating their own web page. The notes taken from the observations were placed into a two-column table inside a spreadsheet (Appendix R). The observation notes were coded using the established code sheet (Appendix T). A notated illustration was also drawn

right after the Re-training Session in order to capture my impressions what I thought would happen and what really happened (Appendix I).

Survey 2, March 2011.

The data for the second survey was analyzed in the same way as the first survey. SurveyMonkey allowed me to download the data into a spreadsheet format and a formatted .pdf document that mimicked the look of the original survey. The data from the questions was cross-referenced to the previous data collection tools to see any patterns or changes.

Interviews, March 2011.

Recording the interviews allowed me to easily transcribe the participants' comments. The participants were coded with the identifier code they were given at the beginning of the survey. I first reviewed the recordings by listening through them to reacquaint myself with them. The interviews were then transcribed and color-coded to each participant. The transcribed interviews were placed into a two-column table inside a spreadsheet. Using the code sheet established at the beginning of the study, I coded the interviews as I read through them. I read through and coded them twice so that I was sure not to have missed anything. As I read through them, after coding, I highlighted quotes that I felt best encompassed the findings of my study. I also formatted a spreadsheet where I listed out each question and had all three answers listed side-by-side so I could compare and contrast the participants' reactions to my questions. (Appendix O; Appendix P; Appendix Q)

After analyzing all the study components separately, I began to make some connections between the data and the larger themes of the study. The emergent nature of

the data collection and instrument creation allowed ideas and themes to evolve and narrow in scope as the study progressed.

Self-reflection.

The self-reflective narrative was copied into a two-column table in a spreadsheet. I read through the code sheet (Appendix T) and reviewed the action research flow chart (Appendix M) before I began coding the narrative. This way I was able to keep the narrative focused on the study. The narrative was coded to allow me to find themes and relate them to the rest of the study (Appendix H).

Mind Map.

I made a mind map (Appendix J) of the themes I was exploring using my research questions and data points from the various data collection instruments. This allowed me to start seeing patterns and connections between the data. By organizing my findings this way I can ensure that I have research to back up my all my findings. This Mind Map enabled me to structure my findings in an organized manner.

Limitations of Study

The time span of this study has limited the effectiveness of the study. Technology takes years to take root especially for teachers who are lacking computer knowledge. This study looks at how the initial entrance into the long process of building an online collaborative network. A further longitudinal study, over say ten years, would show some significant trends as to how effective these tools have been. It will be interesting to see how online collaboration tools will evolve in the next ten years and how teaching evolves with it.

The age range of the participants was also a limitation. All the participants, other than myself, were over forty, non-digital natives. It would be interesting to see a comparison of participants from the twenty to thirty age range and those over forty.

Findings

How do art teachers in the same district view the effectiveness of using an online social network, a Ning, as a collaboration tool for art teachers in the same district?

Our first attempt at creating an online collaborative community began back in March 2010. I wanted to limit the Ning to just middle school art teachers, but the primary and high school teachers caught wind of it and pleaded to be included. So the primary, middle school and high school level were all invited to the first training session on March 25, 2010. There was an amazing buzz in the room as they all sat down eagerly awaiting instructions. One of the participants shared with me during our interview that, “I was very excited because I feel isolated because I am a newer art teacher. I’ve been teaching art for nearly 15 years however I am isolated from collaborating with other art teachers, so I thought it would be wonderful” (Interview A, Appendix O). Most had no idea what a Ning was, but understood that it was a better communication tool for all of us to use. I explained to them that the Ning was as easy to do as sending an email.

Using the Ning, I explained, would allow us to organize all the information we were trying to share via email and create a place to start conversations about topics relevant to our professional development. I went on to explain the benefits of using the Ning: increased communication, storage of all emails and discussions in one place for all of us to interact with. We now have the ability to share lesson plans, examples, materials,

and upcoming events to support one another all in one place. We also discussed the security of the site and that we, the art teachers, would be the only ones with the ability to see and participate in the site.

I was surprised when I first introduced the Ning. I asked the participants, a room of 19 art teachers, to open a new tab in their browser window. The majority of the room, minus the high school teachers in the back, looked up at me like I was speaking a foreign language. “What is a tab?” they said. “I don’t know what that is!”, and the anxiety started. The participants, all non-digital natives, have a good bit of anxiety when it comes to computers. This was the first brick in the wall that they started to build. This reaction baffled me especially when over half of the middle level participants stated they were comfortable using a computer (Intro to Ning Survey), yet only one knew what a tab in their browser was. I realized then that this was going to be tough. The limited knowledge of the participants was very likely going to be a factor limiting the participation on the site.

The participants’ prior knowledge of online collaboration tools was limited if not nonexistent. When looking at the middle school teachers only, only one had ever posted a discussion topic on an online bulletin board and no one had ever used a wiki page or knew what it was. None of the teachers had a class webpage, Wiki, Ning or blog in their classroom.

The teachers were set about to find a profile picture to personalize their site. “One of the most fun things in the beginning was getting to pick a picture that was our logo. It was fun to see what everybody picked. It was such a versatile group, a diverse, group because we had high school, primary, and middle. So we got to see what people picked

and even the conversation that got started on what you picked was great,” stated Participant B in her interview (Appendix M).

We set up some collaboration NORMS, and practiced uploading pictures, videos and documents. The anxiety had somewhat subsided and the teachers were sending funny comments back and forth to their new online friends and doing small victory dances about what they could do with this site. As we were working and laughing about a video of a cat dancing, some teachers were expressing their gratitude for learning about the Ning and said that they are interested in creating their own class Ning in order to show off their students’ work.

As we finished up, the participants took the exit survey for the day. They set a goal for their participation on the Ning in the next few months. Most participants stated they wanted to contribute to discussions at least twice a month. Over half of the participants stated they felt uneasy about the Ning, but knew where to go for help.

The participants who were interviewed for this study were asked to define collaboration. One participant answered, “Collaboration to me is the sharing of ideas, the sharing of knowledge, teaching others to help the betterment of children,” (Interview A, Appendix O). Participant F answered, “Collaboration is community” (Interview B, Appendix P). A community that exhibits both the sharing neighborly attitude and the fear of losing autonomy. In my interview with Participant B she defined collaboration as “having a common goal and then working together to meet the needs or the expectations of everything that the goal stated” (Interview C, Appendix Q).

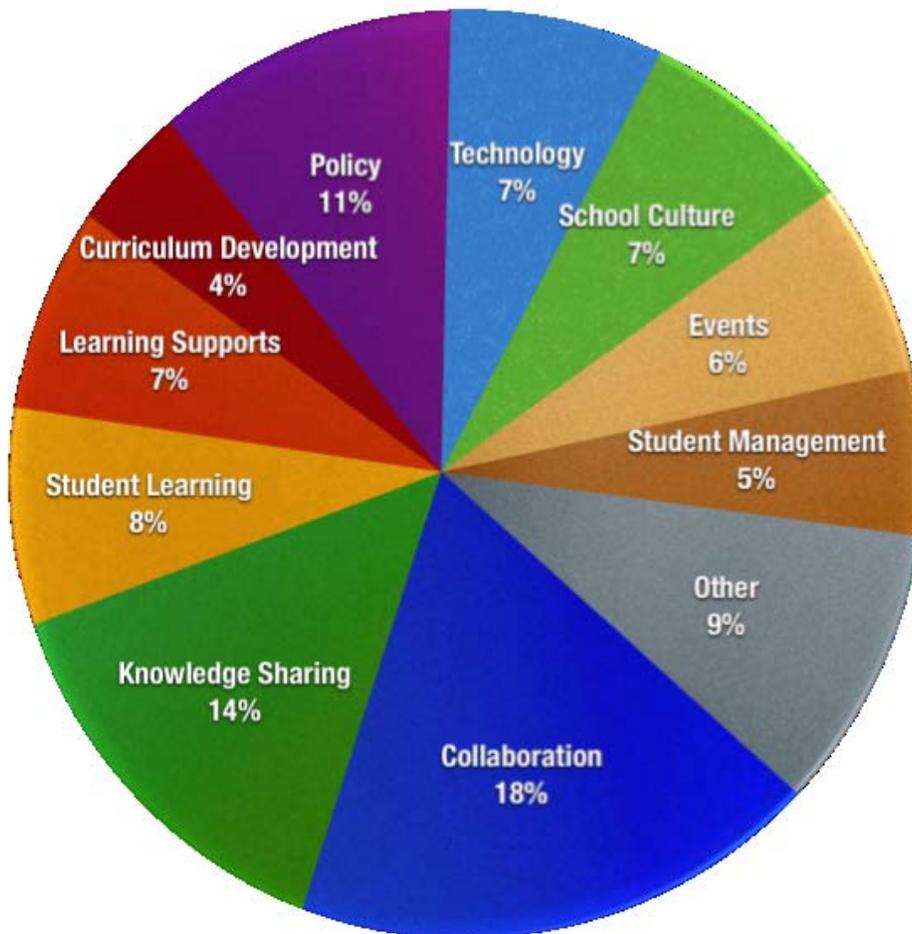
When we started our online collaboration, we discussed what the goals for our collaboration would be. Some of those goals posted were:

- “coordinating and sequencing curriculum”,
- “collaborate on issues facing specialist,”
- “exchanging ideas on how to teach – what to teach, “
- “share lesson plans, ideas on organizational issues, student behavior issues,”
- “to keep in better touch with specific art teachers throughout the district in order to discuss and have much more immediate feedback for everything from room set up, to materials, inventory, special buys, special events, and community communication” and
- “create a sense of community” (Digital Artifact-Ning, Appendix U).

The analysis of the Ning provides an interesting way to track the topics being discussed in our collaboration network to see if they correlate with our goals.

Knowledge Sharing and *Collaboration* were talked about the most with school *Policy* and *Events* also being discussed a good portion of the time. In a lot of the instances when *Student Learning* was being discussed, *Learning Supports* and *Curriculum Development* were also being discussed. If we were to group those instances in with the *Knowledge Sharing* instances, it would be 69% of the topics being discussed. The *Other* category included topics such as: time, participation, competition, vertical teaming, fear, and action research. They were mentioned less than four times so they were grouped into the *Other* category.

What Teachers Discussed on the Ning



(Figure 1, Appendix V)

Some of the things developed on the Ning site were discussions regarding the upcoming District Art Show and the policy surrounding the judging. A Book club was organized to read Daniel Pink's *Why Right Brainers will Rule the World*. Another study group was organized in order to share and learn Photoshop and InDesign skills to create class calendars. Some of the posts were about student artwork and what is acceptable and what is cause for disciplinary action because of its content. "I didn't know the answer to that, my principal couldn't answer that question because he or she does not have an art background. It's fabulous art and there is no arguing that, but the question is its school

appropriateness,” (Interview A, Appendix O). A few of the posts were seeking input from others regarding how they teach perspective. Some posts were just to share knowledge of an artist’s birthday or a Google design contest.

It is interesting that these trends mirror what the goals of our collaboration have been and show that the Ning is being used for its intended purpose. If we were to combine all these groups into one large group, all the groups could fit under *Knowledge Sharing*. As stated in Scribner et.al., (2007, p.88), “Sharing knowledge is a critical function of the collaborative process because it leads to common understanding.” Developing this common understanding is what we set out to do with the Ning and, although still in the infancy stage, displays that we are on the right track.

Though investigating the Ning as an artifact, keeping in mind the technical level of the participants, and the time it takes to implement a new technology, I have come to believe that the Ning is an effective collaboration tool. There are still some roadblocks we will have to overcome. By investigating the participants’ perceptions of the supports and the hindrances we may be able to keep moving forward to create a more effective online collaboration.

What factors do the teacher participants perceive as supporting or hindering the online collaboration?

Although the Ning was helping to create a more collaborative online community, I wanted to find out how we could improve the online community. I knew there were some learning supports that could be implemented, a manual and another training session, that would help the participants interact better online. One of the main goals of our online collaboration is to share lesson plans and be able to collaborate on how to improve our teaching. I also decided to implement a new online collaboration tool, a Wiki, which would make sharing lesson plans, sharing examples, and collaborating easier.

Throughout the December Survey (Survey 1, Appendix E) the teachers said that time was a major factor in why they have not been using the online collaboration tool. I know from my own experience teaching that time is very valuable and there is very little of it to share. If we can integrate our collaboration with a task that some of us might already be doing, then in the long run, we are saving ourselves time. Most of the teacher participants involved in our online community have expressed interest in having their own class website. If I could teach them how to use a Wiki page, they would be able to create their own Wiki site for their classrooms. Now there is the incentive of creating something, for them, which will help them out in the future.

The beauty of a Wiki page is that we can all collaborate on the same page. I can add something to someone else's page that worked well for me. We can create documents together and discuss current issues in a format that is more user-friendly and easier to navigate. By introducing a Wiki page to our online teacher community we are now able to collaborate easier.

After being introduced to the new Wiki site, one of the participants stated that the Wiki “was more sophisticated. It is like the difference between Atari and an X-Box. If Ning was the Atari and you have the little white ball with the graphics and the little line that goes bonk, bonk, and the Wiki is like the X-Box where you have sound and graphics and color and three people can play at once” (Interview A, Appendix O).

In addition to investigating the impact of the new online collaboration tool, the Wiki, we can also investigate what the participants’ perceptions are of the online network. In doing so we are able to see how we can create a better collaborative community. The hindrances, supports, victories and benefits of our online network write the manual as to how to create a more collaborative network.

Hindrances Perceived by the Participants.

When asked on the December Survey (Appendix E) what has hindered the involvement on the Ning, the participants listed: “lack of time, lack of technical knowledge, lack of technical equipment, and fear of information being stored on the Internet.” No response from other participants and being distracted by necessities of our jobs was also mentioned. One of the main issues was many “forgot how to do it because they did not jump in right after our first training.” (Survey 1, Appendix E) In addition, many of the participants have a fear or anxiety tied to using the computer and they would much rather collaborate face-to-face. One of the hindrances I noticed as the site moderator was the change in the Ning structure that took place in July 2010 and the actual structure of the Ning itself. By looking at these hindrances, we will be able to extrapolate how to move forward into a more collaborative community.

Lack of Paper Manual.

One of the most requested things the participants asked for was an instruction manual. Many did not participate in the collaboration right after we had been trained on it. They needed something that could teach them how to use it again and again. When asked about their satisfaction with the Ning site, participants stated that they were unsatisfied with the help resources (i.e. manual) (Survey 1, Appendix E). “I have to have something written. I have to have a visual guide, so if I have a really simple visual guide, I can get into it, but remembering how to get into it is different,” stated one of the participants during the interview (Interview C, Appendix Q).

So I created a manual for them. I created an online manual using a Wiki page and linked it to the top of the Ning page. I emailed participants the link to the online manual with instructions on how to print the pages they needed for reference. When asked during the re-training session, (January 5th, 2011) if anybody had used the online manual, no one knew it was there (Observation, Appendix R). I am still not sure if the teachers are using the online manual. I believe they still waiting for me to print it out for them.

The teachers’ want the paper handed to them, they are not used to having to find the instructions online. The difficulty of a paper handout arises when the instructions are better organized on the computer via hyperlinked pages and interactive how-to tutorials. If I did go and print out the Ning manual I constructed, it would be over 40 pages per person. The Wiki manual would be even larger. More training for the teachers to show them how to use an online manual is necessary. Then I could have a handout on how to not need a handout.

Ning Structure.

I found that after the initial training session on March 25th, 2010, the Ning was not being used as much as I had hoped. The learning curve for the Ning was higher than I expected due to the teachers' limited prior knowledge. Although I, a digital native, view it as elaborate email, many participants had a hard time navigating the site and knowing where and how to post. Many posts were lost in the structure of the site as they were posted in the wrong place. As the site administrator, I was continually finding posts in random places and then copying them and putting them into the correct spot. I applaud the participants for trying, but more training was needed for the participants. I was hoping that by using the site it would just catch on and eventually they would get the hang of it.

There were some hang-ups using the Ning that limited its effectiveness for our small group. If we were friends with everyone on the site, we would be better able to blast out messages to each other. One message, and everyone on the site would be emailed. Without being friends with everyone, there were no email notifications that anyone had posted anything. If not reminded to check out the site, hardly anyone goes on to it. It would be nice if the Ning had a button to make all members friends. Instead you have to request friendship with each person on the site and then they have to approve. The friend function currently in place makes sense for a large public collaborative group, but for our small group it has been hard to make everyone friends. It is probably because it was in the manual that no one read.

In addition, the structure of the Ning format changed in July 2010, which deleted some of the posts participants had been making in the Groups section. This was the

period of time when the Ning Company decided to change from a free service to a fee-service. Eventually they gave K-12 educational sites a free version, but the format was limited. Now it only has one discussion forum and no groups. We spent a lot of time distinguishing the difference between Groups and the Main Forum, to only have the Ning Company change up its fee structure restricting group creation to paid sites. This change limited the usefulness of the site. Before the switch, we planned to have a separate Group for various subject matter and grade levels. The way the Ning works now is that all discussions are lumped into one Forum page, limiting the organization of posts and interests.

The switch Ning made to a fee-based site reminded me of the impermanence of free web-based technologies. This is a very important factor when it comes to teaching technophobes, or older computer illiterate users, how to use a web-based technology. Any slight change in what was taught to them is frustrating and creates anxiety in an already anxious situation. The learning curve of the Ning was pretty high for these teachers. Although to me, a Ning is just a fancy email program where you can categorize, store and search for tagged items including media. To the teachers, it was a web of despair where they got lost, frustrated, and that was only if they could figure out how to log on.

Non-Participation.

Non-participation became a factor because when people looked at the site they saw no one was using the site. One participant had posted a question and did not get a reply. "It was very frustrating to me and that in turn made me think, 'Well what's the point? If no one is going to answer me, and I really need this to be answered, why am I

going to actively participate and keep looking?’ I mean, not to be negative, but that did effect my eagerness to use it” (Interview A, Appendix O). Another participant stated that she looked but did not post anything because she “did not remember how to do the things we had learned” (Survey 1, Appendix E).

As the site monitor I feel a bit responsible for the low level of activity. Due to this being part of a study, I did try to stay off the site in order to see what the participants would do when not prodded. In the future, as the site monitor I would make sure to respond to everybody’s post, especially in the first few months.

Preference for Face-to-Face.

One of the difficulties in implementing an online collaboration is trying to create an online community out of participants who are resistant because they would prefer to meet face-to-face (Survey 1, Appendix E).

What do you think are the advantages and disadvantages of <i>face-to-face</i> collaboration?		What do you think are the advantages and disadvantages to collaborating <i>online</i> ?	
advantages	disadvantages	advantages	disadvantages
We can see the art, ask questions, get clarification about directions etc.	Sometimes we think of questions later...or the night before we teach it... time constraints	Quick look at projects anytime, does not bother other teachers with phone calls or meetings	Can't get instant answers, need to wait for a teacher's response
You can see the speaker and the examples. You can hear their voice.	There's no time to do it.	There are no time and distance issues. Many more people may be involved.	Not everyone is comfortable using this tool to share and our current participation is limited.
I always like face to face better. You can tell if someone is understanding, kidding, upset, etc.	Sometimes certain members of a group dominate and others less assertive don't share.	Quicker. More might be willing to share.	Not everyone using it. Time to get in the habit of using it.
clarification of ideas	easy to stray from topic	accommodates time and schedule restraints can do from home or classroom	not as interactive not instant communication between partners - need to understand technical issues- doesn't build relationships
Instant communication - making personal connections and friendships	have to travel to get to a specific destination		

Figure 2, Appendix X

All of the participants feel face-to-face collaboration is better than working online (Survey 1, Appendix E), but they do see the benefits of both. “They are so different – If I can get going online – I know I would like it. Face-to-face is more genuine...It is easier to make time for a collaboration meeting than to take time to go online” (Survey 1, Appendix E). One participant stated in the same survey, “I am old-fashioned. I prefer to meet and talk. You miss the inflection and the non verbal when communication is online.” In the end, many prefer face-to-face collaboration, but are realistic in knowing that we need to collaborate more than the face-to-face time we are allotted or we create.

In the future I hope to integrate some of the advantages of face-to-face collaboration into our online community. Being able to see and hear the speakers voice can be solved using webcams, speakers and microphones to create a webinar-style collaborative meeting for the teachers. We can also try to form a group chat function on the Wiki so that we may have more instant communication in order to make better personal connections through conversations.

Lack of Technical Knowledge.

“I use the computer as needed for my job, but I am not in the habit of using the computer for social networking beyond email. “ (Survey 2, March 2011). The hardest thing most of the participants have done on the computer would be trying to use the online collaboration tools. “I don’t do anything hard on the computer, I do research and I you know I wish I knew more, like, I want to be able to take Starry Night off of Youtube and put it on my Wiki, but I have no clue how to do that” expressed one of the participants during her interview (Interview C, Appendix Q).

Technical knowledge is one of the greatest hurdles online collaboration has. If the participants cannot figure out how to use the online tools, then they will not log on to communicate and share.

Working to Overcome Fear and Anxiety.

One of the hindrances we encountered was the fear or anxiety associated with online communication: the fear of Information being on the Internet, the fear of losing ownership, and the fear of being judged. The participants needed to find ways to deal with these fears in order to participate in the online collaboration.

Fear of Information on Internet.

One of these fears, the fear of information being stored on the Internet, was expressed in the December Survey (Survey 1, Appendix E). During the Retraining session on January 5th, 2011, the participants candidly expressed these fears when we began discussing the options the Wiki site has of being public or private (Observation, Appendix R).

One of the participants was very concerned about her participation on the online tool appearing in a Google search (Observation, Appendix R). The emotions she was feeling were a valid concern. We approached the subject of privacy and talked about the importance of maintaining the privacy and security of the site (Observation, Appendix R). Although I attempted to assure the participant, the fear of having personal information on the Internet was stagnating her buy-in to our online collaboration. Another participant started to show concern about other people coming onto the site and writing things that could get us in trouble. (Observation, Appendix R).

I tried to calm their fears by explaining the process of how the Wiki works using invitations that have to be approved by the site administrator and other tools the wiki has to prevent those things from happening. Through this discussion the participants who were looking nervous calmed down a little. I told them that if that happened by someone you have invited in, you can see exactly who did it, when and also be able to revert the page back to where it was before it was messed with. (Observation, Appendix R)

Fear of Losing Ownership.

Another concern the art teachers voiced, during our Re-training Session (Observation, Appendix R), had to do with posting of lesson plans. I had explained to them how they can start posting some lesson plans on their own Wiki sites, and once we had all joined, we would be able to help each other improve the plans. Two of the teachers showed immediate fright when we mentioned writing on each other's pages (Observation, Appendix R).

We talked about how this site was to be used to collaborate to better our teaching practice, not just archive what we are already doing. Sharing knowledge also means giving up a little ownership. They did not like that at first. Some of these lessons are their pride and joy and to have someone come in and critique them, let alone change them, struck fear in their eyes again (Observation, Appendix R). A majority of the teachers shared they were very uncomfortable letting other teachers add content on their wiki site (Survey 2, Appendix G).

We brainstormed to figure out a protocol where we would change the color of the text and identify ourselves if we were going onto someone else's site and making changes

to their content (Observation, Appendix R). Therein giving the ownership back to the original poster.

The participants were also asked on the survey in March whether they felt confident that the information they shared would not be made public knowledge without their consent (Survey 2, Appendix G). Most said they were confident because they trusted the other individuals participating and had developed a good rapport with them. They also shared that they do “feel some ownership to some of the work I created, but I am willing to share” (Survey 2). This trust and willingness to share knowledge for the betterment of others is one of the basic principles of an effective collaboration.

Fear of Being Judged.

During the Re-training session, one of the participants expressed one of the reasons she was against ever turning the sites public. She is afraid that parents and administrators would be looking at the different sites of the different schools and comparing the departments to each other (Observation, Appendix R). In response I persuaded her that her work on the site would only make her feel stronger as a teacher. We are here to support each other to become better teachers, not compete with each other (Observation, Appendix R).

This comment got me thinking about competition between teachers, especially art teachers. Are we competing against each other? And if we are, what does competition do to our collaborative community?

One participant had not slept the night before the Re-training session because she had so much anxiety that I was going to teach her something she did not know how to do. She has so much anxiety over computer issues it is debilitating (Observation, Appendix

R). In our interview I asked her to expand on her anxiety or fear concerning our online collaboration. The participant stated that...

It was the fear of learning new things, fear of not being able to do it and professionalism. What if my colleagues realize that I can't do this? What will they think of me then? Hey, I don't know how to do this, and I need your help. Everybody has things they need to work on in this life. To just admit those shortcomings and say I am going to do something about them. I think that it puts you in a vulnerable place. (Interview A, Appendix O)

Dealing with these Fears.

How the participants are dealing with these fears or anxieties illustrate coping tools useful when integrating new skills that make the learner vulnerable. It's the fear of the unknown that puts up this wall for the participants to have to scale.

One coping mechanism discussed in the interview with Participant A was the idea of using prior learning victories in order believe the new obstacle can be overcome. "We have managed this far to figure out how to use email, and if you can use email, you can probably use a Wiki too, it will just take some training, and some time" (Appendix O).

Another coping mechanism is the nature of trust between the collaborative group and the trust of the security and privacy of the online tools. "I guess I had to trust that whatever I put onto my Wiki site is going to stay within the art teachers, it's not going to be online for anybody who Googles my name to show up and get connected to. I have to trust that I am working with some fabulously talented individuals who have more experience than me, and some less experience than me, but yet different experience, and that is going to add to my teaching and not take away from my teaching" (Interview A, Appendix O).

An additional tool for attempting to overcome any fears or anxiety is to decide that it is worth it. “The overall ability to communicate is going to overcome or outweigh my little inability to operate it right now. I need to look at the big picture not the small picture” (Interview A, Appendix O). Some people can look at this process and think, “I can’t learn another thing, it is all I can do to get by. They just need to realize that this is just something that is going to make you better at your own craft, enhance what it is you already do, take it to a new level” (Interview A, Appendix O).

Supports Needed to Create a More Effective Online Collaboration.

More Time.

As Dewey says...”you learn best by doing it.” Many of the participants did not have the time to learn the structure or the process in order to make the Ning or the Wiki a complete online success. Time was one of the biggest hindrances of our online community. Time to get comfortable with the technology, time to use the tools, and time to train on the tools. One comment from Survey 2 (March 2011) stated, “If I had the time to learn how to use these tools AND the time to utilize them, it would be great.”

Participant B pointed out in her interview “there is a difference between finding a time and picking a time. Pick a time that you are going to look at it, ‘cuz you will find the time if you can pick the time” (Interview C, Appendix Q).

The confidence in skill level and comfort level in relation to operating the Ning both fell dramatically between the first survey in December and the second survey in March. The lower levels in confidence and comfort level more than likely have to do with the non-use of the site. “The problem with it was that I just didn’t have time to go to it, I

just didn't take the time to go to it. So I didn't utilize it. Like I wish I would have" (Interview C, Appendix Q). Another comment from Survey 2 reaffirms the notion that the participants "Didn't have enough time to really learn how to use the Ning. I can E-mail one person quite easily."

More Training Sessions.

When I think about the differences between teaching my students how to use a Wiki and teaching teachers I first think about the fact that my middle school students are digital natives. Which is an important difference, but another very important difference is the amount of face-to-face training my students got compared to the training the teachers received. The teachers were provided with one three hour session in March 2010 and one three hour session in January 2011. When compared to two weeks straight of every day interaction for forty-five minutes where my students could make mistakes and get help right away, it is no wonder the teachers had some technical issues.

More training is needed for the participants to feel comfortable using the online collaboration tools. The training sessions need to be in sequence, one following shortly after the other. "The problem is there was so much time that had elapsed between the first time we did it, those who had the skills were able to utilize it, those who didn't, just shuffled it under the papers for later" (Interview A, Appendix O).

Another suggestion made by one of the participants was to "have two classes, a class of people who have computer skills and one for those of us who are challenged so then they won't feel stupid next to their peers" (Interview A, Appendix O). "To have a very basic and slow class without the pressures of you are going to do this in 30 minutes is what we needed," the participant continued.

The training is hard for the participants and having “to admit that to someone else can be very humbling. So when other people right next to you are going zip zap, and they are onto three screens and you are still four screens back going, how do I log on? You are starting to feel insecure; you are starting to feel sophomoric,” (Interview A, Appendix O).

In the future training sessions we will work together to build the skills necessary to collaborate online. Small reminders of how to push the “Edit” button in order to do the new thing I am showing the participants. This way I am not berating them for not catching on or knowing it. I am incorporating the small earlier steps into a slightly more complex task. Through this scaffolding method, eventually the participants will be able to do it on their own. In addition, “picking a time when all the participants could sit down for ten minutes to work on the site every week would be beneficial” and add some structure to our learning (Interview B, Appendix P).

Victories.

The process of learning and participating in the online collaboration network has paved the road for many small victories for the participants. Although small, these victories show that the walls are being broken down; brick by brick and the majority of the teachers are attempting to overcome their hindrances. Not only have the participants shown improvement in technology use, they have begun to integrate other online collaboration tools into our group on their own accord.

At the beginning of our online collaboration, none of the participants had a class webpage, a Wiki, a Ning, or a blog (Survey Pilot, Appendix A). According to the survey data from March 2011, three of the participants are working on a class webpage or class

Wiki page (Survey 2, Appendix G). The shift from not incorporating online collaboration tools at all to at least half of them implementing the tools into their own professional development is significant because they are using the knowledge gained from our collaborative network to better their teaching experience.

The school district has implemented a way of sharing online assessments through our grading program, Skyward. Two of the participants from this study took it upon themselves to figure out how to use the tool and presented their learning and online assessments to the rest of the district art teachers (Interview A and B, Appendix O and P). One of these participants was the participant who was “most vocal about not being competent on computers, but then she went and gave it a try” (Interview B, Appendix P). She was the participant that actually presented the online tool to the rest of the group at a face-to-face professional development meeting in February 2011. The door was broken down, and although she is still “a little uncomfortable, she is trying because she knows that this is the way of the future” (Interview A, Appendix O).

Three of the six participants are now using the online assessments in their teaching and are planning on writing more over the summer (Survey 2, Appendix G). These teachers are incorporating online assessments into their teaching and using the computer lab to do both pre and post assessments of art vocabulary (Interview A and B, Appendix O and P). One teacher plans to do monthly formative home-based quizzes and add the 6th grade and 7th grade assessments to the 7th and 8th added this year (Survey 2, Appendix G).

The participants are also now looking into participating on Artsonia, a public online gallery for student work (Survey 2, Appendix G). The site is a tool for sharing

student examples with parents and the community with the added benefit of potential fundraising for the participants art department. In our interview, one of the participants stated that through Artsonia she has “deepened her own understanding of how she is teaching color” (Interview A, Appendix O) and others are excited about posting student artwork for others to see (Survey 2, Appendix G).

Learning the Ning and the Wiki planted the seeds that developed into the willingness to try out new online technologies that are benefiting student learning and our collaborative professional development.

Benefits.

The benefits of the online community built to create a collaborative space for the district art teachers can be seen through the impact it has had on student learning, or will have in the future. The teacher participants have viewed each others’ students’ work online— getting ideas of what to do with the students and what the students are capable of (Survey 1, Appendix E). One of the teachers, Participant F, is currently using a new lesson plan she found on the Ning site, a lesson the original posted called *Dream Bedroom* (Interview B, Appendix P). She stated that “the students are learning perspective better than before” and credits the Ning site posts for showing her the new lesson plan with examples she could pull up to show the students (Interview B, Appendix P). “I call it *Myspace* instead of *Dream Bedroom*, but I give [Participant G] credit for giving the lesson to me” (Interview B, Appendix P).

The teachers are also asking each other questions that others might know how to solve (Survey 1, Appendix E; Digital Artifact-Ning, Appendix B). The teachers have set

goals to start putting their rubrics online and work on putting formative and summative assessments online using the collaboration tools (Observation, Appendix R).

One of the participants shared one of her hopes for the future of being able to “ask a question, either on the Ning or the Wiki, about a lesson she just taught, and get an answer before lunch so that she may alter her lesson for the afternoon—all without leaving her classroom” (Interview A, Appendix O). Another participant looks forward to “having all her lessons online so that all she needs to do it pull up the site and everything is there: EALRs, Videos, art history PowerPoint, photos of past student work, templates and grading rubrics-- all in one place” (Interview C, Appendix Q). Once comfortable with the site, some of the participants plan to show off to other faculty members to show them what they can do too (Interview A, Appendix O; Interview B, Appendix P; Interview C, Appendix Q).

Planning and sharing events is one of the greatest benefits of our online collaboration tools. One participant had the idea of keeping a running sequence of events on the wiki so that we may leave comments, reflections, or reports of the events we attend to share the learning with the others not able to attend. (Interview C, Appendix Q).

When looking at the comparison between the participants’ perceptions of the online collaboration and their current school culture we are able to see the overall benefit of our online collaboration community (Survey 2, Appendix G; Interviews A-C, Appendix O-Q).

When asked on the Survey in March and in the Interviews to list three words to describe the culture of their current school the participants answered,

What are three words that best describe the culture of your SCHOOL?				
Encouraging	Cohesive	Nice	Knowledgeable	Distrustful
Delightful	Supportive	Helpful	Independent	Divided
Supportive	Family	Caring	Hard-working	Agenda-driven

(Survey 2, Appendix G)

Three of the participants view their school as a positive culture that is supportive and helpful. Two of the participants see the school's culture as being independent or divided. One of these two participants went on to state, "Core teachers at each grade level collaborate with themselves working independently from the rest of the school. (They share same lunch, prep and collaboration time) I barely see some members of the staff and can go weeks without talking to others" (Survey 2, Appendix G).

When asked about the culture of our online collaboration, the participants' answered,

What are three words that best describe the culture of our ONLINE COLLABORATION?				
Supportive	Tentative	Nice	Sharing	Innovative
Patient	Sporadic	Beginners	Respectful	Valuable
Sloughing	Experimentative	Learners	Motivating	Supportive

(Survey 2, Appendix G)

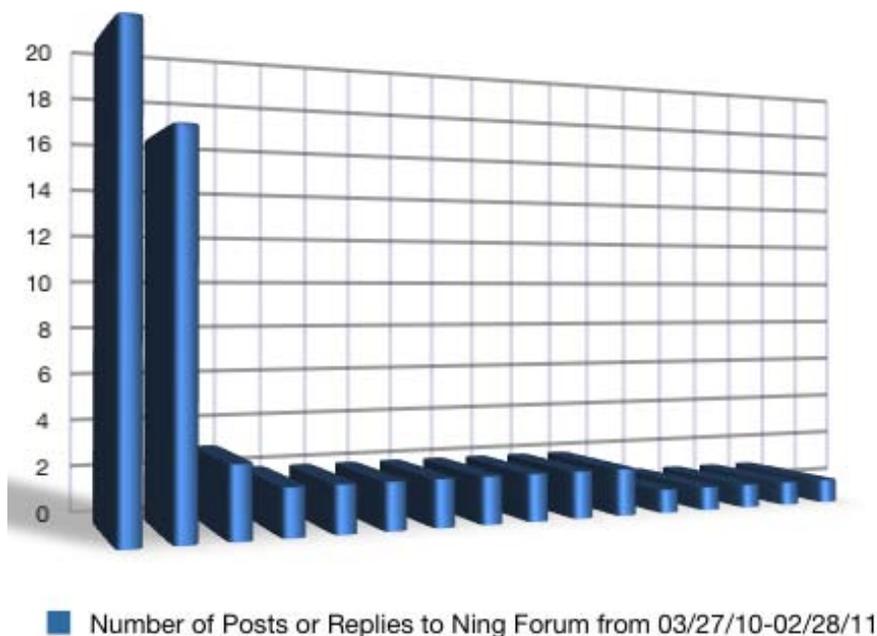
The same participant who "can go weeks without talking to others" views the online collaboration as "sharing, respectful and motivating." Some of the descriptors refer to issues arising from learning a new tool, "sloughing, learners, tentative, experimentative." One of the participants added, "All of us newbies are in the trenches together...I think we need to be reminded once again how to push the button" (Survey 2). The rest of the

descriptors are positive and depict an effective collaboration team. Another participant added, “This is a non-judging format to share information, gain lesson plans, and get new ideas. (I just don’t know how to use it yet)” (Survey 2). This data upholds the finding that the benefits of the online tool will come with time and can combat the isolation some teachers feel within their own building.

How has the overall process of the online collaboration unfolded?

When I look at the participant activity on the Ning forum from March 2010 to March 2011, I can see that some participants posted more than others (Ning Analysis, Appendix U). When the number of posts from each participant on the Ning is graphed out, the graph shows a heavily weighted left side and a long tail of participants who only posted one time.

Participant Activity on Ning Forum



(Table 3, Appendix X)

From this graph I saw an obvious power-law distribution that Clay Shirky mentioned in his TED talk (Shirky, 2005). He brings up the notion that when you are looking at a cooperative group using an online forum, it is not the highest level of participation that everyone needs to be looking at. Each post is as valid as the next. The participant that only posted one thing might have been reading all the other posts others were making before deciding to add in his or her two cents. That one post could be the solution to a problem that the others have been posting many times about.

When the participants were surveyed in December 2010, they were asked how often they had used the Ning. The study participants' shared they had been on the Ning at most 5 to 6 times (Survey 1, Appendix E). The participants also stated that sometimes, (one stated often) that they had gone on the Ning site just to look, or view the site, but did not post anything (Survey 1, appendix E). There were a total of 60 discussion posts on the Ning from March 2010 to March 2011 (Ning Analysis, Appendix U).

According to the Google Analytics report, returning visitors have visited the Ning site 131 times during that same time period (Digital Artifact- Google Analytics, Appendix L). Some of those visits are times that I, the site administrator, viewed the site, but it does show that people are returning to the site and are looking. Although the Google Analytics site does not show me who those visitors are, I have to trust that they are the participants because the Ning site is a private, password-protected site and only the participants can view the pages.

This information altered my perception that the site was not being used. I had to come to terms with what participating on the Ning really meant. In addition to posting on the discussion board, participation also included viewing those posts even if there was no

reply. The value of participation also cannot be measured by how many posts the person makes. When first looking at the participation level on the Ning I was discouraged because of the low level of posting, but now I can see that the participation on the Ning included more than the visible posts.

I also discovered that there are not any good lesson plans written for teaching students, adults or children, how to use a Ning or a Wiki. There are a lot of plans that say, here do *this* with it, but not any on *how* to teach them the process. What to teach when? What to focus on first? What to give them practice doing in little chunks? I made the mistake of clumping it all together, due to lack of training time, then saying, “There it is, now do it all!” It was too much for them.

If the Ning, or the Wiki, is monitored better then non-participation might not be an issue. If I can incorporate the Ning or Wiki into a task we can do for fun, and I keep adding more fun discussions or scavenger hunt type tasks for the participants, then participants will see that at least someone is using the communication device. I think it is also important to keep it fun and not district-mandated. “We like this because it is ours and we do it because we want to, not because we have to” (Interview B, Appendix P).

The process of the online collaboration was a much harder endeavor than I anticipated. One of the things I learned is that adult learners are more difficult and more fearful of taking risks than younger students. Luckily we have fostered a face-to-face collaboration in the past, although limited, so we are able to trust each other and work together to build supports to help overcome those fears and hindrances. Using the foundation of the collaboration we already have, I hope to work together with the other teachers to build a better communication network.

The findings of this study reveal that using online collaboration tools, like a Ning or a Wiki, have the potential to support effective teacher collaboration to support student learning. Participation in the online community not only reduced teacher isolation, but also helped expand teachers' willingness to become active learners of online technology as they learned and shared from one another. With more time and training, our online collaborative community has the capability of supporting our teaching practice more than traditional professional development.

Summary

In summation, the findings of this study reveal that art teachers of this study find the Ning, which was set-up to foster online collaboration between district art teachers, is an effective tool. The findings show that the discussion topics on the Ning align with the collaboration goals of the group. In addition, the level of participation cannot be viewed through counting the number of posts. It is the usefulness of those posts and how many views they are getting rather than how many people are replying. The teacher participants find the process wrought with hang-ups, but are willing to persevere as they see the benefits of online community down the road.

There are many hindrances that have been taken into account, but there are supports that are being put in place to prevail over those hindrances. The hindrances found in this study were: the lack of a paper manual, the Ning structure (the complexity of it, the change in its structure, and the limitation on small group functions), non-participation on the site hindering others involvement, a preference for face-to-face collaboration, lack of technical knowledge of the participants, and various fears or

anxieties felt when dealing with technology or the Internet. Some of those fears include: fear of information stored on the Internet, fear of losing ownership of professional currency, fear of being judged by peers and public.

The supports that need to be implemented in order to overcome these hindrances will help alleviate some of the struggles the participants faced in this study and make our online collaborative community stronger in the future. The collaborative team needs more time: more time to train on the tool, more time to use the tools, and more time to get comfortable with the tools. More training sessions are also a necessary support in order to scaffold the learning more and ease some of the pressures placed on the non-native learners.

The training session agendas need to be created collaboratively, not top-down. The teachers need support on what they are struggling with or what they want to know next for a specific purpose. By working together, we are making our collaborative team stronger and providing a much better professional development environment for ourselves.

Sharing our victories within our community and sharing them with others will support our sense of achievement and give a boost to others who may be struggling. Also, reminding ourselves of the benefits of our online collaborative community will remind us that in time, this will become second nature and we will be the better for it.

Conclusion

Creating an online collaborative community for art teachers has proven to be a challenging task. One of the harder challenges I faced was realizing that I was teaching a foreign concept to many of the teachers. Maybe I should have researched some ESL techniques in order to teach the non-natives the language of the future. Some teachers are reluctant to learn and will not be taught. Others are willing to be taught, but need to have the time to develop the skills that I take for granted. A lot of patience is needed and it cannot be taught from the ivory tower. These teachers are struggling through the learning and the demands that are being placed on them are causing stress.

Though our experience, the door has been broken down for some and they are ready to collaborate and try new things online, things they would have never thought they could do one year ago. Already our state tests are moving towards online assessments and our state classroom based performance assessments will need to be documented in some way. If we struggle to learn now, we will be ahead of the curve ball that the state will eventually throw at us.

The need is there, the want is there, and the excitement is there. Now all we need is the time. I have faith that we will find the time to better our district program, our new online community, and ourselves in the process.

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Appendix A

Introduction to Ning, Pilot Survey, March 2010

Introduction to Ning Survey



1. Do you feel isolated in your school building being the only art teacher or specialized art teacher?			
		Response Percent	Response Count
yes		60.0%	3
somewhat		20.0%	1
no		20.0%	1
answered question			5
skipped question			0

2. Do you feel disadvantaged because you do not have time to collaborate with other specialized art teachers?			
		Response Percent	Response Count
yes		100.0%	5
somewhat		0.0%	0
no		0.0%	0
answered question			5
skipped question			0

7. Do you currently use a class webpage, wiki, ning or blog in your current teaching assignment?			
		Response Percent	Response Count
no		60.0%	3
no, but I would like to		40.0%	2
yes (please specify which one)		0.0%	0
answered question			5

Appendix B

Digital Artifact- Ning, Home Page

BGSD Art Network

A collaborative space to share, learn, and grow.

Main [Invite](#) [My Page](#) [Members](#) [Photos](#) [Videos](#) [Forum](#) [Blogs](#) [My Network](#)

Welcome BGSD Art Teacher [Edit](#)

The aim of **BGSD Art Network** is to promote best practices, facilitate joint creative work, and support artistic projects, curricular activities, and professional development opportunities.

HELP! [Edit](#)

Need some help? Forgot how to do something? Want to learn more?

[Click here to open the User Manual Wiki Page for this Ning.](#)

Need more help, email me at broyles.rebecca@bgسد.k12.wa.us.

Quote of the Week... [Edit](#)

The world today doesn't make sense, so why should I paint pictures that do?
-Pablo Picasso

Members [Edit](#)

Forum [Edit](#)

Final Survey for Rebecca's 702!
 Please complete the LAST and FINAL survey for my 702 project: Creating a Collaborative Online Learning Community For Art Teacher Professional Development: The Ning, The Wiki, and How We Got Ther...
 Started by Rebecca Broyles in [Digital Collaboration](#) Mar 1.

Awards at our District art Show! 2 Replies
 I feel strongly against awards at our district art show. At least for the primary level, where I teach. I wish it was just an art exhibition.
 Started by Andy Logeren in [Interest to all](#). [Last reply](#) by Rebecca Broyles Feb 28.

Is this Art? (or Not school appropriate) 1 Reply
 A 14 year old female student created a mixed media oil pastel and ink drawing of a knife penetrating and cracking open the top of a skull on watercolor paper. There is no blood, no guts; it has good...
 Tagged: [a, weapon?](#), or, ['Art', this](#)
 Started by Tanya E. Bachman in [Interest to all](#). [Last reply](#) by Rebecca Broyles Feb 28.

Re-Training Session!
 Please join me for some discussion and re-training on our BGSD ART Ning Network! Let's make it better together! Date: January 5th, 2010 Time: 2:30PM To: All Primary, Middle and High School Art Teac...
 Started by Rebecca Broyles in [Digital Collaboration](#) Dec. 27, 2010.

[+ Start Discussion](#) [View All](#)

Photos [Edit](#)

[+ Add Photos](#) [View All](#)

Jackson Pollack Emulator [Edit](#)

Rebecca Broyles

[Sign Out](#)

[Inbox](#)

[Alerts](#)

[Friends - Invite](#)

[Settings](#)

Quick Add...

About

Rebecca Broyles created this Ning Network.

[Create a Ning Network! >](#)

Latest Activity [Edit](#)

A discussion started by [Rebecca Broyles](#) was featured
Final Survey for Rebecca's 702!
 March 1

[Rebecca Broyles](#) added a discussion
Final Survey for Rebecca's 702!
 March 1

A video by [Rebecca Broyles](#) was featured

Zoom Quilt!
 February 27

[Rebecca Broyles](#) added a video

Zoom Quilt!
 February 27

A discussion started by [Andy Logeren](#) was featured
Awards at our District art Show!

Appendix C

Digital Artifact- Online Manual, Home Page

BGSD Art Teacher Network

☆ **home** Page Discussion History Notify Me PROTECTED

Welcome to the BGSD Art Teacher Network!

This Wiki page has been created for the use of Battle Ground School District Art teachers to learn and explore digital collaboration via online social networking using a Ning.

This site has been created to help teachers navigate our Ning site.

www.bgsdart.ning.com

Ning User Manual Table of Contents

- [Why use a Ning?](#)
- [How to Create and Use a Ning- a broad overview.](#)
- [SIGNING ON: How to sign on to BGSD Art Network Ning.](#)
- [MY PAGE: Creating or Updating your profile.](#)
- [PHOTOS: Adding and Tagging Photos.](#)
- [VIDEOS: Adding and Tagging Videos.](#)
- [FORUM: How to post and reply to Discussion Topics.](#)
- [TEN TIPS for Using the NING](#)

Digital Artifact- Online Manual, Photo Upload Tutorial Page

☆ **5 PHOTOS** Page Discussion History Notify Me PROTECTED

- Click the Photos tab in the top navigation bar.

• The Photos page appears.

CLICK TO ADD PHOTOS

Main Invite My Page Members Photos Videos Forum Events Groups Blogs Manage

All Photos All Albums My Photos My Albums My Favorites + Add Photos

All Photos (62)

▶ View Slideshow

Sort by: Latest

the-rolling-stones by Deb

Kollwitz and Son (Death???) Not sure of title

hofer 4 by Jan Leppert

hofer 5 by Jan Leppert

hofer 1 by Jan Leppert

Appendix D

Digital Artifact- Wiki Site, Home Page

Wiki Pages & Files Users Settings

Search this workspace

VIEW EDIT

☆ **HOME page**

last edited by [Rebecca Broyles](#) 0 minutes ago Page history

Welcome to the BGSD Art Teacher Wiki
 A digital space for art teachers of Battle Ground School District to collaborate and discuss professional development tools to support student learning.
 Please create pages, share ideas, invite other teachers to use the wiki, and enjoy these resources. We are looking forward to seeing you collaborate and build a website to make your thinking visible.

Use this [Index](#) to peruse the wiki sites of various art teachers from Battle Ground School District.
[Index of BGSD Art Teachers](#)

Check out the [Wiki Etiquette](#) link for more pointers so that our wiki can be a great one!
 Use this page to enhance your wiki and help making it successful.

[Help Making your Wiki Successful and Plugins](#)

Use this page to list out local resources that can be helpful to our classrooms.
[Resources](#)

Use this page to add links to pages we can collaborate on. (e.g. help on lesson plan, materials search, etc.)
[Collaborative Help](#)

Why Wiki?

Wikis in Plain English

...contact [Rebecca Broyles](#) with any questions...

Get Great Ideas!

Comments (3) [Delete all comments](#)

[Rebecca Broyles](#) said at 6:18 pm on Dec 27, 2010
[Reply](#) [Delete](#)

can everyone see this?

[Deb Supplitt](#) said at 4:33 pm on Feb 5, 2011
[Reply](#) [Delete](#)

Re the NAEA, I've already signed up and am going...got a two day sub approved but have to pay for the conference myself...Hot shop glass blowing is already filled as is tons of other fun activities but there are over 1,000 other seminar taking place. Looks like tons of fun in Seattle.

[Rebecca Broyles](#) said at 5:03 pm on Feb 5, 2011
[Reply](#) [Delete](#)

Deb Deb Deb...Please edit the wiki page called Events itself... Then this comment goes into he right place and others can see it.

Add a comment

[Add comment](#) 0/2000

Create a page
 Upload files
 Invite more people

Share this page
 Put this page in a folder
 Add Tags
 Control access to this page
 Copy this page

SideBar

[HOME page](#)
[Events](#)
[Resources](#)
[Videos](#)
[Collaborative Help](#)
[Index of BGSD Art Teachers](#)
[Assessment Strategies](#)
[Help to make your Wiki a Success](#)
[Collaboration Goals and Rules](#)
[Wiki Etiquette](#)
[Help](#)
[Ning FORUM](#)

Edit the sidebar

Navigator

- ★ Starred Pages and Files
- art history
- Images
- templates
- Adding a Google Calendar
- Art History Table of Contents

Pages Files options

Share this workspace

Add a new writer to the workspace.
 [Add](#)
[User settings](#)

Recent Activity

- edited by Rebecca Broyles
- Art History Table of Contents edited by Rebecca Broyles
- Albrecht Durer.html moved by Rebecca Broyles
- Andrew Wyeth.html moved by Rebecca Broyles

[More activity...](#)

Appendix E

Survey One- Ning Revision Survey, December 2010 (excerpt)

BGSDART NING Revision Survey



1. Have you read and signed the last page of the consent form to be included in this study? (If needed, the consent form is attached to the email this survey was linked to. Please print the last page, sign and date as a participant and mail it (inter-office) back to me.)

		Response Percent	Response Count
Yes		75.0%	3
No, if No, please read, sign, and date the consent form before beginning this survey.		25.0%	1
		answered question	4
		skipped question	0

2. How often have you used the BGSDART Ning? (choose one)

		Response Percent	Response Count
not since we were first trained on it.		0.0%	0
1 or 2 times		25.0%	1
3 or 4 times		25.0%	1
5 or 6 times		50.0%	2
7 or 8 times		0.0%	0
9 or 10 times		0.0%	0
more than 10 times		0.0%	0
		answered question	4
		skipped question	0

Appendix F

Invitation to Retraining Session, December 2010

**Please join me
for some discussion and re-training on our BGSD ART
Ning Network!**

Let's make it better together!

Date: January 5th, 2010

Time: 2:30PM

To: All Primary, Middle and High School Art Teachers in the Battle
Ground School District.

From: Rebecca Broyles, Art Teacher, Amboy Middle School

Location: Chief Umtuch Middle School Computer Lab

Topic: Review and Re-training Session on the BGSDART Ning
Network for More Effective Online Collaboration.

If you would like to participate in my Master's thesis please read and sign the consent form I have inter-office mailed you. Please inter-office mail it back to me. I will send you a copy back. Please send this consent form back to me, Rebecca Broyles (AMS), ASAP.

You do not need to attend the re-training session in order to be part of the study. I would still like your feedback through survey data. Just sign Consent form for me.

The study concerns itself with increasing the effectiveness of online collaboration, using a Ning platform, between art teachers of Battle Ground School District

I have also mailed a copy of this invitation to you.

Please answer the survey you will be emailed before the training session to give me a better idea of what we need to work on.

Agenda:

2:30-2:40—Re-Introduction to site

2:40-3:00—Survey results shared and discussed

3:00-3:25— Re-training on Discussion Groups, posting policy, and other issues brought up from survey data collection.

3:25-3:30—End of re-training survey.

If you cannot attend this session and still need some help, please contact me for a private appointment, broyles.rebecca@bgd.k12.wa.us.

Appendix G

Survey 2- Creating a More Collaborative Online Community, March 2011

5. How comfortable are you...						
	very uncomfortable	uneasy	comfortable	very comfortable	Rating Average	Response Count
letting the other BGSD art teachers add content to the wiki site you created?	60.0% (3)	0.0% (0)	40.0% (2)	0.0% (0)	1.80	5
sharing your lessons on the wiki?	40.0% (2)	0.0% (0)	40.0% (2)	20.0% (1)	2.40	5
sharing student artwork on the wiki?	40.0% (2)	20.0% (1)	40.0% (2)	0.0% (0)	2.00	5
critiquing another teacher's lesson online?	40.0% (2)	20.0% (1)	40.0% (2)	0.0% (0)	2.00	5
sharing lesson plans at face-to-face meetings	40.0% (2)	0.0% (0)	0.0% (0)	60.0% (3)	2.80	5
					Why do you think that is?	4

6. How confident are you that the information you share will NOT be made public knowledge without your consent?						
	don't care	very fearful	confidant	very confident	Rating Average	Response Count
on the Ning?	20.0% (1)	20.0% (1)	40.0% (2)	20.0% (1)	2.60	5
on the Wiki?	20.0% (1)	20.0% (1)	40.0% (2)	20.0% (1)	2.60	5
from face-to-face meetings?	40.0% (2)	0.0% (0)	40.0% (2)	20.0% (1)	2.40	5
					Why do you think that is?	4

8. Do you currently use a class webpage, wiki, ning or blog in your current teaching assignment?			
		Response Percent	Response Count
yes		40.0%	2
no		20.0%	1
no, but I would like to		40.0%	2
		if yes, please give me an example of how it supports student learning.	3

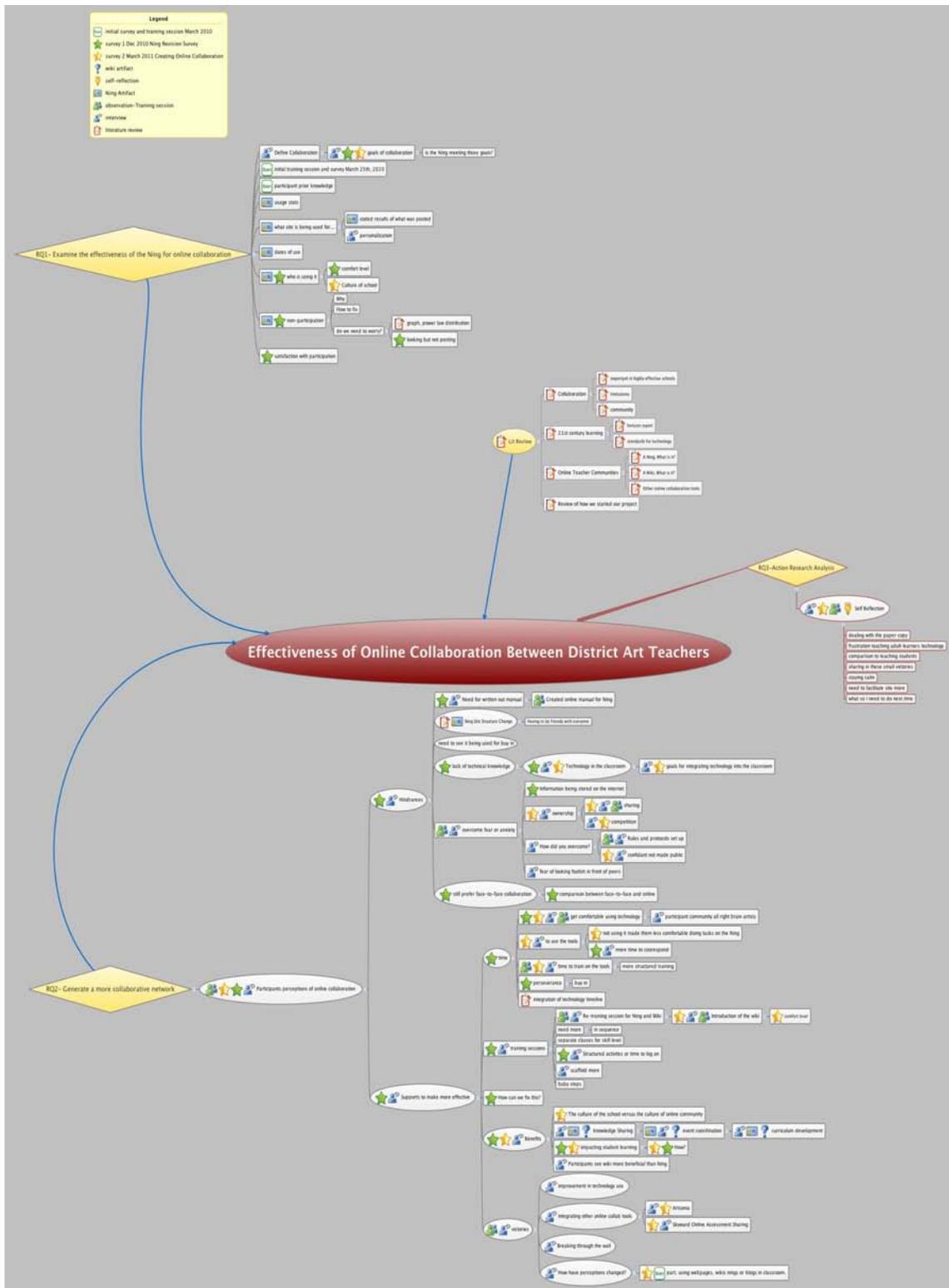
Appendix H

Self-Reflective Narrative

Excerpt from Reflective Journal...May 2010	CODE
There is no manual on how to teach teachers how to use a Ning...	LS
There are no good manuals on how to teach them little by little, step by step how to navigate and use it.	LS
I have written basically what I think they need to know...but where is my manual...	Manual
I need a lesson plan on how to teach teachers, technophobes, how to use the Ning.	LS, tech
I guess I could look for lesson plans, but I think I have... The ones I find written for students are sparse info manuals like I wrote on how to add photos, how to add videos, how to post....	LS
But there is no workflow given as to how one should approach teaching it.	LS
It takes more than 3 hours I will tell you that. That was just the tip of the iceberg. I do not think I fully covered privacy issues, and notification settings. I am not sure anybody is receiving emails.	Time Fear
Or maybe they have nothing to say...I experienced that as well. This study needs to be longer, and will continue...	Participation Time
I think summer time would be a great time for some to start photographing and posting work and lesson plans...	Time
It is very difficult when they don't understand what it means to tag something, or even to open a new tab in the same window. Heaven forbid asking them to add target="blank" to their hyperlinks to open then in a new window automatically. But all that will come with time.	Tech LA Time
Are they using it to collaborate...some.., but she is comfortable with the online set up. Together, maybe we can push through.	Collab
How many teachers does it take to change a light bulb, "CHANGE?!!!!!!!!!!".	
We shall see...	

Appendix J

Mind Map



Appendix K

Consent Form

**WASHINGTON STATE UNIVERSITY
College of Education****702 Project Consent Form**

Study Title: The Effectiveness of Online Collaboration, using a Ning platform, between Art Teachers of Battle Ground School District

Project Sponsor:

Rebecca Broyles

Art Teacher, Amboy Middle School, Battle Ground School District
Graduate Student, College of Education, WSUV
(360) 904-8396

Advisor: Richard Sawyer

Associate Professor / Teacher Leadership Ed.D. Program Chair
College of Education
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You are being asked to take part in a study carried out by me, Rebecca Broyles, for my 702 project, under the supervision of Richard Sawyer. My 702 project is the final step in obtaining my Master's in Education from Washington State University.

This form explains the study and your part in it if you decide to join the study. Please read the form carefully, taking as much time as you need. Ask me to explain anything you don't understand. You can decide not to join the study. If you join the study, you can change your mind later or quit at any time. There will be no penalty or loss of services or benefits if you decide to not take part in the study or quit later.

What is this study about?

This purpose of this study is to: (1) examine the effectiveness of using an online social network, a Ning, as a collaboration tool for Battle Ground School District Employees, (2) to generate a more collaborative network, and (3) to study the process.

You are being asked to take part because you are an art teacher in Battle Ground School District participating in the online collaboration site www.Bgsdart.ning.com.

Appendix L

Digital Artifact- Google Analytics, Ning

bgsdart.ning.com/
New vs. Returning:
Returning Visitor

Mar 25, 2010 - Mar 25, 2011
Comparing to: Site



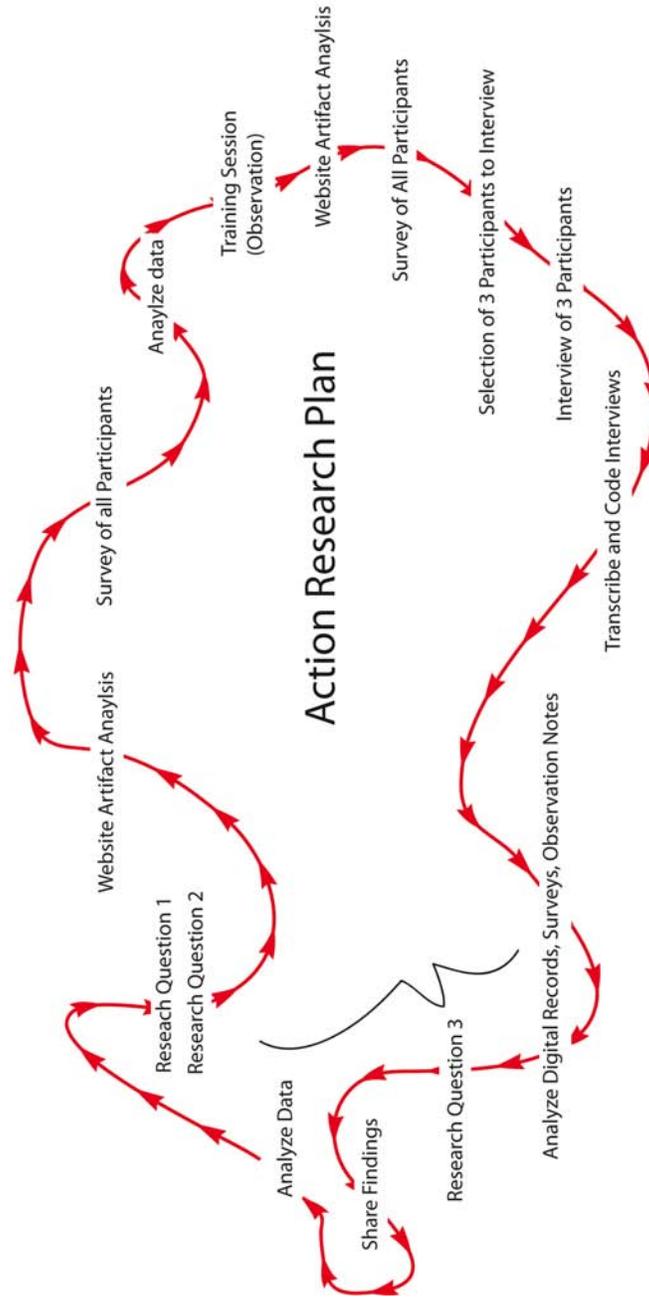
This visitor type sent 131 visits

Site Usage

 131 Visits % of Site Total: 58.48%	 5.76 Pages/Visit Site Avg: 4.51 (27.69%)
 00:07:00 Avg. Time on Site Site Avg: 00:05:01 (39.56%)	 0.00% % New Visits Site Avg: 41.52% (-100.00%)
 35.11% Bounce Rate Site Avg: 49.55% (-29.14%)	

Appendix M

Action Research Plan



This purpose of this study is to: (1) examine the effectiveness of using an online social network, a Ning, as a collaboration tool for art teachers within the same district, (2) to generate a more collaborative network, and (3) to study the process.

Appendix N

Interview Questions

Name:
Location:

Date:
Setting:

Creating a Collaborative Online Learning Community For Art Teacher Professional Development: The Ning, The Wiki, and How We Got There.	
INTERVIEW QUESTIONS	
C o d e	<p>Question</p> <p><i>Thank you for allowing me to ask you a couple of questions about our online collaboration experience.</i></p> <p><i>The purpose is to get your perceptions of your experiences inside and outside of the classroom. There are no right or wrong or desirable or undesirable answers. I would like you to feel comfortable with saying what you really think and how you really feel. Please feel free to let me know if any of these questions need clarification. Also if any of these questions make you feel uncomfortable, feel free to not answer them, if anytime you would like to stop the interview just let me know. Again, I really appreciate your willingness to come and answer these questions and share your learning experience with me. At the end of the interview, if there are any questions you have for me, please feel free to ask at that time. This should only take about 20 minutes.</i></p> <p><i>If it is okay with you, I will be recording our conversation. The purpose of this is so that I can get all the details but at the same time be able to carry on an attentive conversation with you. I assure you that all your comments will remain confidential. I will be compiling a report which will contain all comments without any reference to individuals.</i></p>
S C	<p>1 What is your name, what do you teach, where do you teach, and how long have you been a teacher?</p>
C o l l a b	<p>2 What was your initial impression, after the first time meeting, of the idea of collaborating using the Ning, the Discussion forum?</p>
C o l l a b	<p>3 What was your initial impression, after the re-training session, of the idea of collaborating using the Wiki, the edit/save website?</p>
C o l l a	<p>4 Did this impression change after you have been involved for a while?</p>

Appendix O

Interview A, Participant A

<p>What was your initial impression, after the first time meeting, of the idea of collaborating using the Ning, the Discussion forum?</p>	
<p>I was very excited because I feel isolated because I am a newer art teacher. I've been teaching art for nearly 15 years however I am isolated from collaborating with other art teachers, so I thought it would be wonderful. I know personally I lack some computer skills and I needed to brush up on those also. The day on the education on the Ning I was having chemotherapy later that afternoon, so I was in the training until was it March 24th that we did that? [uh huh? Or the 25th] Well I had chemotherapy at one o'clock that day so I had the training in the morning and then in the afternoon when you guys watched the video of My Child Can Paint That, I was over at the hospital getting Chemotherapy. So obviously, the chemotherapy immediately after the instruction might have blurred some instruction cuz they give you a lot of medications to have the chemotherapy and then it took me about a week to recuperate. So then you are heading back to your classroom, and all your other lesson plans, I didn't devote as much time to it, Had I'd been a healthy human being I would have devoted, jumped right into it because it was very intriguing. In fact I did, I posed a question on the Ning which is yet to be answered today. [I answered it] you answered it. Yea! I just haven't gone back to the Ning cuz who knows where my password is (ha ha) [yeah, I can find that out for you or reset it] but yea, you know what I am saying cuz I thought that would be great because when I had questions like that, this is a fabulous skull it is drawn really well, yes there is a knife going through it, no there is no blood, the oil pastel, the shading is awesome, is it art, of course it is, but is it appropriate for a 14 year old? I didn't know the answer to that, my principal couldn't answer that question because he or she does not have an art background and it would have been nice at the time when I had the student I said this is nice, this is wonderful, but we are going to put it in your folder and not show anyone, and it's not like a don't ask, don't tell policy. It's fabulous art and there is no arguing that, but the question is it's school appropriateness.</p>	<p>Isolated P, Collab, tech Time LS SL Policy policy</p>

Appendix P

Interview B, Participant F

<p>What was your initial impression, after the first time meeting, of the idea of collaborating using the Ning, the Discussion forum?</p>	
<p>after the first time meeting...I was all excited I thought the ning would be absolutely wonderful in every way gives up something to do I signed up for using it at home because I don't have any time to use it at school, the school day I get here at propbabl 7 in the moring get up at 5 to get here by 7 I leave here at 7 ocloak at nigh so the only time I have is betn the hours of 7:30 at night and my quality time at 3 in the morning. Or o the weekends, to access ning, I am sure that is the dame case for a lot of people</p> <p>[what was the initial impression of the wiki]</p> <p>thought it was super, I am all for it</p> <p>[has this impression changes after being involved?]</p> <p>no, although I have no time to spend on the site so I honestly don't understand how to use the site cus I am old and I don't know how to use the site because I don't use it a lot okay its not good, not bad it just is</p> <p>[would you still see it as useful if you had the time?]- if I had the time to use it at least 20 minutes to sit there and do it and not have you yell at me, like, you fool. [I didn't mean too,] "Deb Deb Deb , edit it so everybody can read it okay, goofball...[I was afraid you were going to take it that way] I really didn't but you can never establish tone on an email or a ning, no I didn't take it that way I just don't have time to sit on there and really digest it all if I had the time, ill do it this summer, no I wont hav time this summer, some time, I will sit down and I will go though the tutorial, when you pointed it out yesterday the edit button, oh duh, oh yea, I get it, again, so just keep on saying let's look at the wiki site again, I am going to show you how to do this every fipping time we meet I will go oh yeah we turn on that button again, okay I got it...</p>	<p>Time</p> <p>Time</p> <p>Time</p> <p>Benefit</p> <p>Age</p> <p>Time</p> <p>Time</p> <p>Fear</p> <p>Tone</p> <p>Tech</p> <p>Time</p> <p>LS</p> <p>LS</p> <p>LS</p> <p>LS</p>

Appendix Q

Interview C, Participant B

<p>What was your initial impression, after the first time meeting, of the idea of collaborating using the Ning, the Discussion forum?</p>	
<p>I really liked it, it was um one of the funnest thing in the beginning was getting to pick a picture that was our logo. It was fun to see what everybody picked. It was such a versatile group a diverse group cuz we had high school primary and middle. So we got to see what people picked and even the conversation that got started on what you picked um and then moving from that to getting informato out as far as like the Portland Art Museum's Education Night and um looking at um the artworks like when you put your kids work up there like from lesson plans. The problem with it was that I just didn't have time to go to it, I just didn't take the time to go to it . so I didn't utalize it. Like I wish I would have.</p>	<p>Personal Event SL Time</p>
<p>What was your initial impression of the wiki</p> <p>Um I think that it it seems like a broader program in what we can do with it. Um I think its probably, and I haven't gone into it that much but its more assessable um there is I like the set up better as far as like um where you can go in and you can pick you know like meetings and like its kind of separate so I think its more assessable I also really like where you can put your pictures in and then your lesson plans. Although I was apprehensive about somebody going back in and changing what you origionally had and we cam up with the idea that we are not going to do that, that you can add, so I like that and I think that um once we get into ti and we start doing it more and more and more, even those who are like me, that are nervous about the computer, because I am not a techie person, um once we do it and utilize it, I think the opportunities are limitless, for example, uh, Wednesday, everybody is done with everything, when I come in Wednesday morning and was like did not plan my new prep for today. I can go on there , pull something up that fast (snaps) and I 've got something, even if its for just that day so and I know it works and I know it is well liked because my colleagues have provided it. Done it, tested it. It is one there so it is good, And whatever is on the computer, because of the technology I have , whoosh, its right on my screen and there is my examples, my lesson plan from some body else there are exaples, and its kid, its kid friendly um in that the kids are looking at other kids work, and its local kids form our district. Its you cousin,</p>	<p>Time Benefit Fear Time Fear Benefit LS Trust Tech SL</p>
<p>[so did the impression change after you had been using the online collaboration tools?]</p> <p>um yeah, even with the ning, because I put some meetings in there, some um events, but um, you kow it was so and so responded to or replied and it was with ning if you went on you could keep going ang going and responding and responding but I following it you would have to go back so it wasn't continious, and from what I understand the wiki is more continious, so I think that the communication will be easier.easier to find</p>	<p>Events Easier Benefit</p>

Appendix R

Observation Notes

1	As the teachers sat down in the first few rows they were seem anxious to begin. Trying to corral teachers and get them started is worse that trying to corral students. After taking about 15 minutes to get everyone logged in, snacks had, forms signed, and everyone settled, we were ready to begin. This was also after	F
5	most showed up about 10 minutes late. Also, all 19 teachers were emailed and mailed invites and reminders to come. Only 6 teachers came.	P
10	I began by explaining to them again that I was studying online collaboration as a means to make our professional collaboration more effective. I reviewed with them the functions of the Ning and what the Ning was good for. We talked about the survey findings from the Revision survey, and told them that the one common thread concerning the all the surveys was that everyone felt that Time was a major hindrance. We also went over what our main goals of online collaboration were.	AR Tech
15	This lead to introducing the participants to a new online tool, our wiki page. I did not have them log in or try to get on the site. I just had the site up on the screen and asked them to watch me demonstrate, and that we would log in together.	AR Time KS, CD, SL
20	I showed a quick video explaining briefly what a wiki was and how to use it. They seemed to like the video, it had some humor in it. I explained how the Collab site would work. We have one main site for collaboration and linked to that site would be their own classroom wiki sites. By crating something for themselves, we are saving time for ourselves in the future because we now have a web archive of our lessons that can be pulled up at any time. Also, we are saving time by doing something that we already do, we are just giving us the ability to share them and collaborate on them more effectively.	Tech LS LS
25		LS Tech
30	I began to explain to them the idea that our sites can be private or public, trying to open up a discussion about how we wanted to build our site. This is when the fear took hold of some...	Time
35	I explained that it might be a good idea to keep our collaboration site private so only we can see I, but if they wanted to make their classroom site public, they could. Some of the questions Participant A asked: If it is private, will it still be searchable by Google? (the participant who was asking this had just googled my name and wiki to find out.)	Time KS, LS, SL
40	after I answered her, "To the best of my knowledge, only the public sites are web crawled by Google, and will appear in the search. Private sites are kept private." The participant, convinced that I was lying to her, pointed out on her computer that the site had popped up and my name with when I joined or last logged in...	Fear Tech
45	I went over to her screen and showed her that that was not our wiki, but a different "public" wiki that I had joined. She still was visibly worried about security and proceeded to tell us a story of how she is afraid of posting anything of the net because of some guy from college that is trying to find her. She continued to tell us the whole story of the encounters and how fearful she was on having anything with her name on it. Especially Facebook. She was super concerned that I had her middle initial included on the list of district art teachers on our "private" wiki site. I assured her it was a private password protected site and that I would remove her middle initial and that she could even just be Ms. A	Fear
50	or come up with a nickname if she was uncomfortable...I did inform her that the	Fear
55		

Appendix S

Interview Consent Form

Consent for Participation in Interview Research

I volunteer to participate in a study conducted by Rebecca Broyles. I understand that the project is designed to gather information about our online collaboration network. I will be one of 3 people being interviewed for this study.

1. My participation in this project is voluntary. I understand that I will not be paid for my participation. I may withdraw and discontinue participation at any time without penalty. If I decline to participate or withdraw from the study, no one on my campus will be told.

2. I understand that most interviewees will find the discussion interesting and thought-provoking. If, however, I feel uncomfortable in any way during the interview session, I have the right to decline to answer any question or to end the interview.

3. The interview will last approximately 20-30 minutes. Notes will be written during the interview. A digital video recording of the interview and subsequent dialogue will be made. If I don't want to be taped, I will not be able to participate in the study.

4. I understand that the researcher will not identify me by name in any reports using information obtained from this interview, and that my confidentiality as a participant in this study will remain secure. Subsequent uses of records and data will be subject to standard data use policies that protect the anonymity of individuals and institutions.

5. Faculty and administrators from my campus will neither be present at the interview nor have access to raw notes or transcripts. This precaution will prevent my individual comments from having any negative repercussions.

7. I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study.

8. I have been given a copy of this consent form.

My Signature

Date

My Printed Name

Signature of the Investigator

Appendix T

Code Sheet

Code Sheet

KS	Knowledge sharing
Event	Event coordination
CD	Curriculum Development
SM	Student Management
Fear	Fear/anxiety
Tech	Technology
LS	Learning Support
SL	Student Learning
P	Participation
AR	Action Research
T	Time
Comp	Competition
SNS	Social Networking Sites
Own	Ownership
Age	Age
POL	Policy (school, district, federal)
Collab	Collaboration (rules, norms, issues)
SC	School Culture
VT	Vertical teaming
Com	Comfort

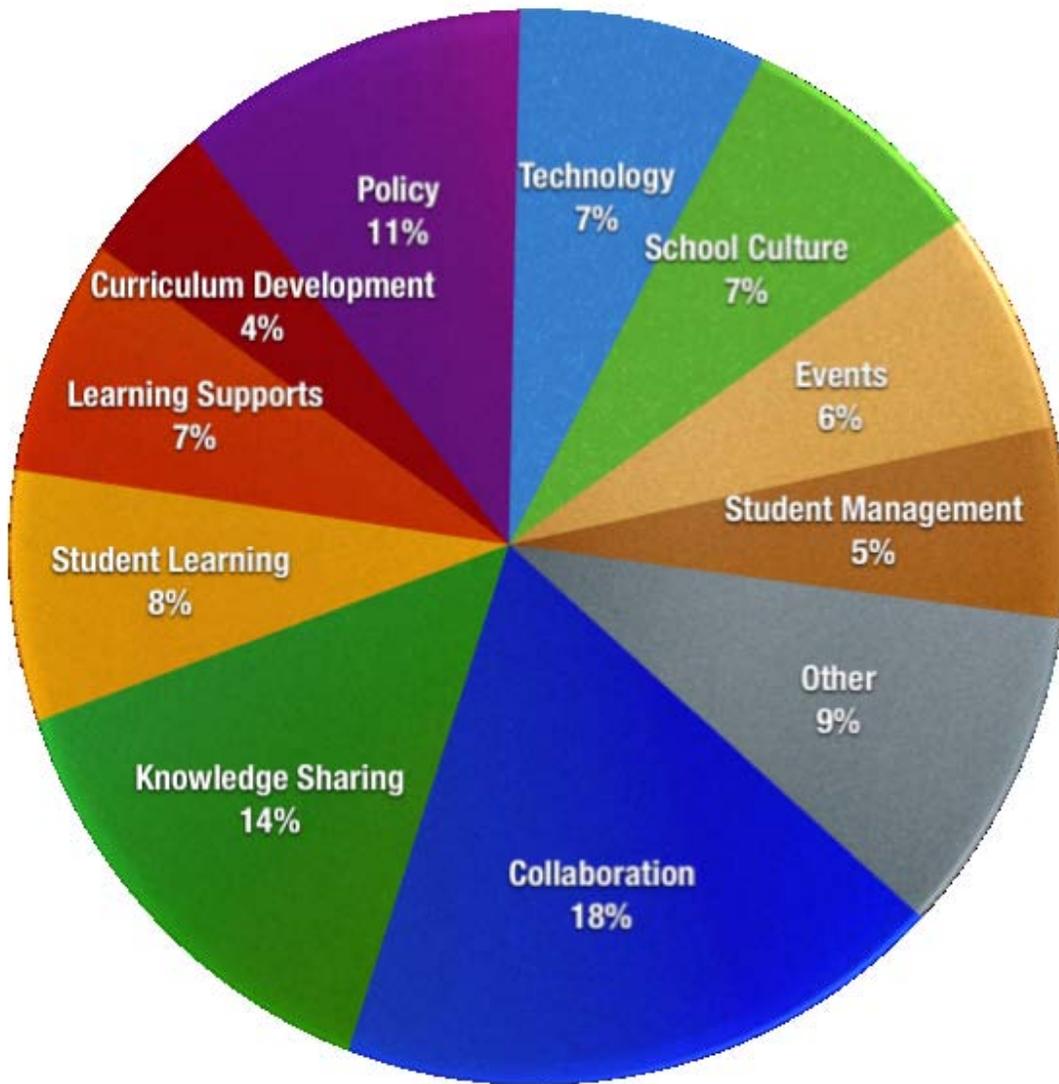
Appendix U

Ning Analysis- Coded

Ning Discussion Post Analysis				
	Discussion Title	Who Posted or Replied	Post Content	CODE
1	Awards at our District art Show!	Participant E (Poster)	I feel strongly against awards at our district art show. At least for the primary level, where I teach. I wish it was just an art exhibition.	pol sm event ks comp
2	Awards at our District art Show!	Participant D - reply	I agree. And I don't understand why they have to be in so early, so they can sit in a storage room.	pol
3	Awards at our District art Show!	Participant G - reply	It is that time of year again and I and feeling the same way. the biggest issue is that they hold the artwork for too long. two months, and that time period conflicts with my open house. I get more foot traffic in my open house than I do at the District Art show. I do have to say that when students get awards, they do show up to the awards ceremony. why can't it be up for only two weeks... also, the judging has no known criteria. At least the PTA reflections has a theme and standards. I am sure it is hard to judge, so why judge at all. why not only judge the high schoolers. i feel pressure to submit items, but I kind of wat to opt out this year and see what happens. i want to put on a show in amboy only... any thoughts on opting out?	pol time comp time VT SC
4				
5	Is this Art? (or Not school appropriate)	Participant A (poster)	A 14 year old female student created a mixed media oil pastel and ink drawing of a knife penetrating and cracking open the top of a skull on watercolor paper. There is no blood, no guts; it has good blending, good shading, accurate shape, proportion and is definitely thought provoking. Is this Art in a 'weapons free' zone? Or is this cause for a referral? At the high school level would this be acceptable Art? She is gifted for her age...could easily compete with highschoolers. If this were Math or English Class, administration would label her talented and gifted; I am afraid if I share this work of art with them, they would view it as grounds for expulsion.	sl sm ks vt pol sm sl pol fear

Appendix V

Figure 1- What Teachers Discussed on the Ning



Appendix W

Figure 2- Advantages and Disadvantages of Face-to-Face Collaboration and Online Collaboration

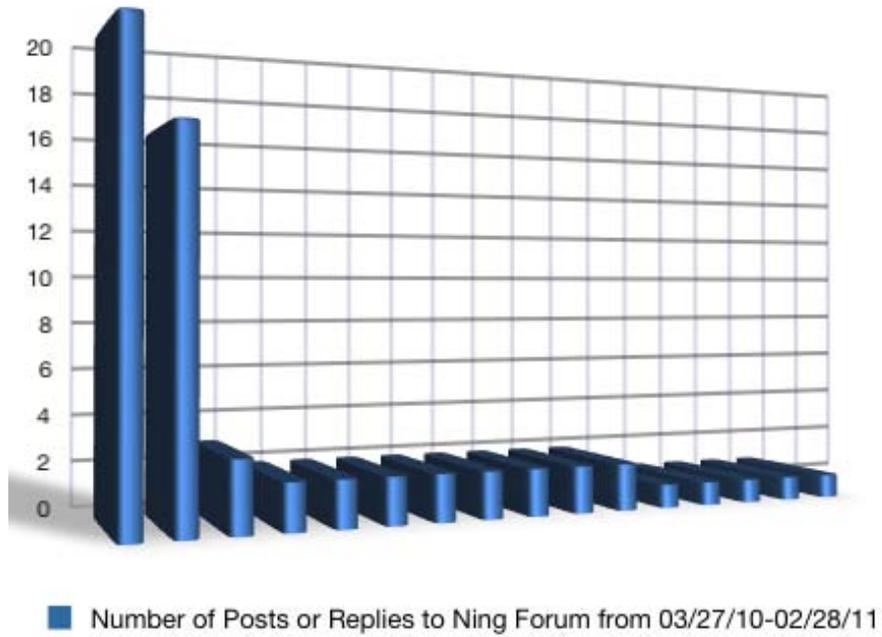
What do you think are the advantages and disadvantages of <i>face-to-face</i> collaboration?		What do you think are the advantages and disadvantages to collaborating <i>online</i> ?	
advantages	disadvantages	advantages	disadvantages
We can see the art, ask questions, get clarification about directions etc.	Sometimes we think of questions later...or the night before we teach it... time constraints	Quick look at projects anytime, does not bother other teachers with phone calls or meetings	Can't get instant answers, need to wait for a teacher's response
You can see the speaker and the examples. You can hear their voice.	There's no time to do it.	There are no time and distance issues. Many more people may be involved.	Not everyone is comfortable using this tool to share and our current participation is limited.
I always like face to face better. You can tell if someone is understanding, kidding, upset, etc.	Sometimes certain members of a group dominate and others less assertive don't share.	Quicker. More might be willing to share.	Not everyone using it. Time to get in the habit of using it.
clarification of ideas	easy to stray from topic	accommodates time and schedule restraints can do from home or classroom	not as interactive not instant communication between partners - need to understand technical issues- doesn't build relationships
Instant communication - making personal connections and friendships	have to travel to get to a specific destination		

Data taken from Survey 1, December 2010, Appendix E

Appendix X

Figure 3- Participant Activity on Ning Forum

Participant Activity on Ning Forum



(Data taken from the Digital Artifact Analysis of the Ning, March 2010-March 2011)