iPads and Service Learning Join Hands for Lifelong Artistic Literacy

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New Technology and Art Education Policy

Technology and art education policy have combined as evidenced by two recent policy initiatives. First, the National Art Education Association (NAEA) Curriculum Committee published a position paper validating the inclusion of media arts in the next generation Core Arts Standards (Olsen, 2012). Second, the dissemination for the new common core curriculum standards in art is slated to be dependent upon web-based technology in a wiki site (National Coalition for Core Arts Standards, 2013). Notification of these two moves toward integrating art education policy and technology came through my email recently as I was making preparation for the coming semester. Along with the notification came an invitation to electronically view and comment on the draft version of the National Core Arts Standards.

My role as a professor in art education is to prepare future art educators for internships and future teaching careers. My curriculum is impacted by art education policy and my state’s adoption of the broader Common Core curriculum standards for public education. What those curriculum standards entail impacts my instruction to university students. It influences methodology for the young educators as I teach them to write lessons with the standards in mind. Including technology is a component typically covered in my pre-service art education classes. The importance of such was reiterated as I read the proposal to include new media as a valued component of comprehensive art education and was encouraged to review the draft of the National Core Arts Standards for the visual arts. The email prompted me to reflect on how I would integrate technology into the curriculum for my art educators for the upcoming semester. I spent some time reviewing the position paper (Olsen, 2012) published by the Media Arts Sub-Committee for the National Coalition for Core Arts Standards’ (NCCAS) and the Common Core art education policy draft recommended by NAEA (2013). This article describes my reflection as I considered technology and art education policy that has the capacity for building lifetime artistic literacy.

Art Policy for Lifetime Artistic Literacy

As I began perusing a draft for the newly written National Core Arts Standards Framework Matrix, I realized that at the heart of the matter is the goal for art educators to effectively facilitate artistic literacy that spans a lifetime. The standards being developed in light of current educational practice and public policy are billed as a living document designed to identify what is necessary for ensuring artistic literacy for 21st century students.

The Common Core curriculum standards are interpreted from a cornerstone of NAEA research policy, Creating a Visual Arts Education Research Agenda Towards the 21st Century (1994). The goals and expectations of what constitutes meaningful art education practice are specified in the draft of the national standards curriculum document. In the language of the curriculum draft, the effect of art education is to be long term (2013). The framework lists the following as goals for art education:

- Defining artistic literacy through a set of overarching philosophical foundations and lifelong goals that clarify long-term expectations for arts learning.
- Placing artistic processes at the forefront of the work.
I pondered the list. The focus on lifelong learning was intriguing to me. The phrase, “lifelong goals” presented in the standards’ matrix, implied that art learning is on a continuum that goes beyond K-12 education.

The framework addressed previously written policy supporting arts for life but with renewed emphasis on lifetime engagement with the arts. The NACCS (2013) reported that in a 2008 National Assessment of Education Progress (NAEP) survey only about one-third of Americans have been involved in the arts as children or adults. Seventeen percent of those surveyed took classes or lessons in the visual arts, 12% in dance and 6% in theatre. Also reported was that over the last 30 years the number of individuals taking classes or lessons in the arts has been declining. The significance of these statistics implies that a vast number of citizens are not presently engaging in experiences that lead to artistic literacy.

But the new standards’ philosophical foundations of the arts more explicitly provide a means for fostering competence in creating, performing and responding to art using learning events that are attainable and measurable. Simply listing what students should know and be able to do holds little merit. Instead the framers of the new standards desire documentation with artifacts that empirically address the art forms that have been studied and learned. The curriculum writers’ proposed methods of showcasing best practices by recording and archiving them on a Wiki site is indicative of the trend toward integrating technology and arts education policy. The plan is appropriate and applicable for learners and educators of the 21st century by providing easily obtainable, global access.

Personal realization in an art pursuit that lasts for life may be enhanced by technology and art education policy that supports technology. Content and strategies in this agenda may include creative practices integrated across the educational curriculum; artistic concepts, synthesized with thinking about universal questions; and artistic learning evidenced through hands-on engagement, demonstrated through visuals and narratives (National Coalition for Core Arts Standards, 2013). Sharing these best practices on a global technological platform makes these content and strategies universally accessible, and I came to the conclusion that technology’s ubiquitous presence is a perfect match to promote artistic literacy for 21st century learners.

**High Tech Art Education: A Literature Review**

An example of technology being effectively used in a visual arts teacher-education institution was explored in a recent study (Tam, 2012). One hundred and twenty-eight first year students answered surveys and an additional 24 students attended a focus group. Both groups gave feedback about their experience of using podcasts in conjunction with face-to-face teaching. The students indicated that the technology enhanced their learning. They felt that the
podcasts were an effective supplement to face-to-face teaching for the demonstration of procedures or skills.

Another example of technology and arts education was investigated in a study that used an online learning management system in second life to present art related field trips, and create digital artifacts in a virtual art studio (Grenfell, 2013). The descriptive study gathered responses from 32 undergraduate college students. The visual journal entries of the students and the art educator’s observations indicated that the virtual experience created an effective e-learning community of practice.

The previous studies suggest technology is well received by university art students and is a valuable tool for teaching art. I concur. This opinion, however, is not necessarily a shared conviction by all art instructors. Li-Fen (2005) surveyed pre-service art educators and found a negative bias against including computer-generated imagery (CGAI) in the classroom. According to Li-Fen, some of the educators in her study held an outdated, 1980’s perception of CGAI. She said that the educators felt that CGAI is machine controlled and lacks artistic skill and expression. Li-Fen’s (2005) descriptive study summarized that computer graphics and web-based authoring programs can be used to mitigate prejudice when hands on computer art making is included. Li-Fen (2005) recommends that interactive, guided practice be used to open future art educator’s understanding of CGAI aesthetics and should be included as a component of a pre-service educator’s pedagogical training.

Black and Browning (2011) acknowledged that the adoption of digital technology into the art room is slow in coming. They cite software or hardware difficulties, lack of teacher support and training, decrease in instructional time and funding, stress and heavy workloads as excuses often given by educators for not integrating technology into the art curriculum. Black and Browning recommend that art teachers reevaluate their circumstances by immersing themselves in new technology and networking sites, finding technology mentors and structuring their art classrooms to be more constructivist in nature providing opportunities for co-learning and student directed, collaborative projects. Black and Browning (2011) cautioned art teachers to not ignore the digital literacy of their students. They say doing so creates a chasm between school life and lived experience.

Lived experience is a key ingredient for a recent program that capitalizes on combining digital media with lifelong artistic literacy. The Mix@ges Experience (Fricke, Marley, Morton, & Thorne, 2013) was a project adopted by partners from museums, schools, and youth or seniors’ associations in Scotland, Germany, Austria, Slovenia and Belgium. The program began in 2011 and received funding through 2013. Mix@ges provided creative new media workshops where professional artists, media trainers and art educators guided multi-age students in digital media exploration. Some of the products created during the workshops included iPod movies, audio guides for a museum, art blogs, tagtool performances, digital music and photography. The premise for Mix@ges is that older and younger generations can share learning on equal terms and jointly approach the arts while having fun. Exploring ways of self-expression and discovering the potential of digital media allowed learning to take place through the act of creating for those involved in the workshops.

In the publication, Using Technology to Connect Generations (Kaplan, Sanchez, Shelton, & Bradley, 2013), visual art engagement and technology often accompany intergenerational encounters. This publication, which profiles 46 national and international technology programs designed to bring older and younger people together, lists digital story-telling, creation of digital books, photography, gaming, and visual communication through Skype as examples of art and
technology experiences. Digital technology opens the door for artistic literacy exploration that can span a lifetime.

**Service Learning Pilot Study with iPad Enhancement**

In light of the new literature and policies encouraging more engagement with newer media, I instituted a new iPad-centered component, focused particularly on service learning, in my preservice curriculum. I recalled before the fall semester of last year, learning of an initiative offered by my university that provided iPads for classroom use. I wrote a proposal for the in-house grant and was awarded 10 iPads. My objective at the time was to provide a technology-enhanced service learning art experience for my future art educators. My rationale in planning for the use of the iPads was to provide resources and learning experiences for my students that would help prepare them for teaching in their own classrooms. I felt it was important for my students to be familiar with the kind of technology that many of their students in the public school system would be using.

The day that I issued the iPads to my students I conducted a survey to determine the experience level of my university students with the device. Of the 10 students taking the survey, four of the students marked “none at all” in answer to the question, “How much experience do you have in interacting with iPads?” Four other students indicated that they had a little experience. Only two students marked that they had a great deal of experience. Another question asked students to rate their comfort level in using iPads. Forty percent of the students indicated that they were not comfortable at all.

In relation to experience with computer technology, six students marked that they had a great deal of experience. Four students marked that they had a little. Seven of the students indicated that they were very comfortable with computer technology and three students marked that they were comfortable.

The survey results suggested that many members of my class, composed of traditionally aged university students who planned to be art educators, were computer literate but had little or no experience in using iPads. The students, in effect, during their service learning experience would be learning new technology with iPads while learning how to engage with art content.

Two populations of art learners were targeted for our service-learning project: older adults and pre-school age children. The university preservice students were charged with facilitating the creation of art products, teaching about other artists, encouraging student reflection and interacting with others using iPad technology. Just as the philosophical foundations section in the new Common Core curriculum standards stipulates, the art learners in our service learning experience were given opportunity to create, present, respond and connect throughout the artistic process. We worked with pre-schoolers and elderly participants, so the intergenerational component of the service learning experience reiterated the importance of art education across the life span and set in place a foundation for artistic literacy.
Procedure

The service learning experience took place over a period of three weeks. The project included 12 sessions of about 45 minutes each. Six of the sessions were conducted at a local preschool and six sessions took place at an assisted living facility. Two of my art education classes were involved in the project. There were three university students who interacted with four-year old pre-school students and 8 university students who worked with older adults ages 74-86. My research focus was to understand the qualities of technology-enhanced service learning with young children and older adults. Findings from the research were anticipated as helping future art educators better understand how technology can enhance their teaching across a broad age range.

Eight future art educators lead the assisted living residents in a book-making project. The books that the assisted living residents created were designed for the preschool children and included references to childhood memories that the older adults recalled during discussions with the university art education students. The books included pop-up illustrations and artworks from both the children’s sessions and older adults’ sessions.

The pre-school children were under the direction of a second group of four university students. The children created cards and plaster hand puppets. The puppets were designed to represent characters from artworks that were on display at a museum in the area. The art educators assisted the children in using their puppets to perform a puppet show. An art exchange between the generations benefitted the children with an individualized pop up book. The assisted living participants received a child’s card and the opportunity to view the children’s puppet show recorded with the use of an iPad.

The university students planned to introduce the older adults and younger students to Face Time on iPads as a means to communicate with one another. However, neither the building where the childcare center was located nor the assisted living facility had Internet connection capability. In place of the synchronous communication the art educators used the iPads as a means of documentation, recording interviews with the older adults, making various audio-visual recordings of art experiences and taking still shots of the children, the older adults, and traditionally made art products. Both pre-school children and the older adults in their separate locations viewed the recordings and pictures that the art educators made. The university students also engaged both the older adults and children in drawing experiences using the iPads. Outside of the service learning experience the future art educators used the iPads as a research tool. They accessed web sites and created digital book pages, package definition files (PDFs), lesson plans, and quick, response (QR) code scans.

Findings

Anticipated benefits of the study were that the art educators would develop teaching strategies that may contribute to future career goals. In particular the future art teachers as well as the older adults and children were expected to develop more comfort in dealing with technology-assisted communication. The study was also expected to realize some of the same advantages as in-person intergenerational art programming such as creating a sense of community among participants, contributing to wellness, reducing negative stereotypes and
lessening a fear of aging (Grobstich, 2011, LaPorte, 1998; Lawton, 2004 and Tapley, 2004). Many of the expectations for the university art students were met as evidenced through a post assessment survey and testimonials.

Before the service learning experience and distribution of the iPads questionnaires were administered to the university students to determine the efficacy of the pre-interns in using iPads. A second survey was given at the conclusion of the study. Journal reflections also documented preservice student opinions. Prior to the study many of the students surveyed indicated that they had very limited experience with iPads. Seventy per-cent of the students reported on the pre-service survey that they had a comfort level of very comfortable or comfortable in working with iPads. Thirty per-cent of the students marked that they were not comfortable at all. When queried after the service-learning project, there were 80% of the students who said they were very comfortable or comfortable with the iPads and only 20% who said they were not at all comfortable. The post survey also asked students if they anticipated interacting with iPads in the future. Fifty per-cent of the students said they anticipated interacting with iPads a great deal. Although only 10 students completed pre and post assessment surveys, analysis of the surveys gives evidence that more students felt comfortable or very comfortable after using the iPads than prior to the experience. One student wrote in her journal reflection the following description of teaching an art lesson with the iPad:

I feel like the lesson went really well, even though neither of my ladies were there (assisted living facility). I helped show Rebecca’s partner how to use the drawing app. I think that this experience has helped me to become more confident. The student was relying on what I was telling her to learn how to use the iPad. I think this put a good amount of pressure on me not to mess up. I knew that it was my responsibility to show her how it worked. I feel like I could show a group of people how to use the app by myself now. It was really fun too. (J. Jarosz, personal communication, November 15, 2012)

While it is a limitation of this study that only a small number of students were involved, it is informative to consider the end of course summative evaluations for determining the impact that the iPad technology had on these future art teachers’ commitment to use technology in an art classroom. Most of the students’ comments were positive in nature. There were a few negative responses mostly dealing with the limited time of exposure to the iPad, faulty Internet connections, and the lack of prior instruction.

The following written reflections were student responses from course discussion boards and end of course summative evaluations. “It [iPad] helped me learn ways I can use technology in the class to get my students more involved” (H. Wray, personal communication, November 5, 2012). “They [iPads] helped me see how fast kids catch on to technology and how it makes them more interested in learning.” (H. Wray, November 8, 2012). “The iPad helped me to be more connected to the world around me with quick access to an abundance of information, which helped me learn new ideas to teach to become a better teacher.” (A. Denton, personal communication, November 8, 2012). “I feel that the iPad can be a great tool to have access to in a classroom. Being able to integrate art with the ever changing world of technology is extremely important” (R. Hubbard, personal communication, November 8, 2012). “Technology is always improving, so we as educators should take every chance we can get to be on the same technological level as our students to better educate them” (T. Seudder, personal communication, November 8, 2012). “I can see the usefulness of incorporating the iPad into class assignments
but I would have to become very familiar with it in order to use it in my class” (C. Pirtle,
personal communication, November 8, 2012).

Based on the students’ responses and personal observations I believe that the inclusion of
the iPads in the art education course and in the service-learning project advanced the university
students’ learning and knowledge for both art content and technology. During the service
learning experience and in the university classroom setting discovery learning took place.
Discovery learning involves a constructivist approach where students construct knowledge based
on past experience such as their experience with the iPads combined with what they already
knew about technology (Brooks and Brooks, 2001). Collaboration with others is valued in the
process. The teacher helps facilitate inquiry rather than dictates information for student
consumption.

For the assisted living residents and the pre-school children, the effectiveness of using
iPad technology for supporting art literacy across the lifespan was only partially successful. Both
age groups created art products using the iPad and both populations became actively engaged in
viewing recordings of art making experiences. Unfortunately, due to the lack of Internet
accessibility concurrent virtual interaction between the older and younger generations was not
possible. This lessened some of the program’s effectiveness in generational collaboration.

The older adults indicated through survey responses that they did not anticipate using the
iPads again. However, the survey showed that the older adults’ comfort level for using
technology improved after the program. At the beginning of the program 75% of the survey
responders marked that they were uncomfortable with technology. The number dropped by the
conclusion of the program to 33% of the survey responders feeling uncomfortable with
technology. A longitudinal study would provide more information on the long-term artistic
literacy that may be fostered through art exchanges facilitated through intergenerational
interaction with the iPads

According to the pre-assessment questionnaire the older adults hoped that the program
would allow them to meet different people, build knowledge, and present an opportunity to know
more about the current interests of children. One assisted living resident indicated that her reason
in coming was that she wanted to learn about iPads. At the conclusion of the study one assisted
living resident wrote on her survey form that the program was a “way we can visit with one
another, learn to know each other, and bring us closer together.” One assisted living resident
said she valued “learning about other people’s expressions.” A third questionnaire comment said
getting to meet more people was a valuable part of being in the program. Another resident wrote,
“I enjoyed the project even though I thought I wouldn’t.” One resident wrote, “I would like to
see oil painting and some art history” (Whiteland, S., 2012, November 8, survey responses of
anonymous assisted living residents’ shared with Dr. Susan Whiteland).

The older adult comments suggested that the art activities were instrumental in creating
positive social interaction. The request for more art related engagement might be interpreted as a
desire to pursue artistic literacy even into advanced years. The older adults’ participation with
the iPads suggests that many valued the opportunity of engaging in new technology with the
support of university students. While in-person contact may be a preferred method of
communication for those in institutional settings, iPad virtual communication has the potential to
provide social engagement between assisted living residents and others that otherwise may not
be possible.
Surveys were not given to the children to assess their artistic literacy inspired by iPad technology. Nevertheless, candid photographs taken of the children watching iPad recordings and creating artworks on the iPads suggested that the children were engaged by the technology.

Conclusions

After contemplating the semester’s work I came to some conclusions about my preservice art educators project that took on a service-learning project, which implemented technology in a context that potentially fostered lifelong artistic literacy. Students of different ages and generations were impacting each other’s engagement in the arts, and were enhancing their learning through iPad technology. My students were in effect fleshing out what the common core curriculum framework was suggesting be put into practice. I surmised that the draft for the Common Core art standards was right on target. Effectively facilitating artistic literacy that spans a lifetime is a worthwhile goal for 21st century art education policy. Combining the pursuit with technology can offer a direction of promise for achieving the goal.

What followed my reflection on the past year’s work was to evaluate the limitations of my previous study and make modifications for my next semester of future art educators. I desire to develop best practices in combining technology and art education policy that emphasizes lifelong art literacy. This will be my focus for years to come.
References
