

**EMAIL AS AN EDUCATIONAL TOOL: A PERSPECTIVE FROM AN ART
CLASSROOM**

A Thesis

**Presented in Partial Fulfillment of the Requirements for
The Degree Master of Arts in the
Graduate School of The Ohio State University**

By

Thomas David Timmons, B.F.A., B.A.E.

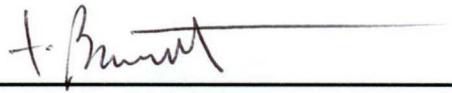
**The Ohio State University
2003**

Master's Examination Committee:

Dr. Terry Barrett, Advisor

Dr. Michael Parsons

Approved by


Dr. Terry Barrett
Advisor
Department of Art Education

ABSTRACT

In the pursuit of sensibly adapting to increasingly ever-changing technologies, I have defined a viable place for email as an educational tool that enhances student learning within my class room. This study focused on the qualitative nature of incorporating this tool, and it is exactly these qualities teachers can use to correlate this study with their own practice. This study can provide educators guidance in making decisions in regard to email as a tool for learning. This study presents email as one technology with the ability to enhance student learning that is relevant to the student's future learning. As a technology that has surpassed trend and newness, email is becoming an essential part of daily life and learning.

ACKNOWLEDGMENTS

I wish to thank my advisor Dr. Terry Barrett for his patience and encouragement in supporting endeavor, as well as his valuable feedback and guidance on previous drafts of this work. Working with him via email during the writing of this work drew interesting parallels between the study and its compilation.

I thank the Reynoldsburg City School District for supporting the research, as well as the students for their participation in the survey portion of my study.

I also wish to thank Michele Timmons, my wife, and the members of my Critical Friends Group, especially Leonora Zeches and Dean Sabetta, for their candid and honest dialogue regarding this study, its relevance, and clarity in which it was reported.

VITA

March 22, 1966 Born – Columbus, Ohio

1988 B.F.A. Columbus College of Art and Design

1990 B.A.E. The Ohio State University

1991 – Present High School Visual Arts Teacher
Reynoldsburg High School
Reynoldsburg, Ohio

FIELDS OF STUDY

Major Field: Art Education

TABLE OF CONTENTS

	<u>Page</u>
Abstract	ii
Acknowledgements	iii
Vita	iv
List of Tables	vi
List of Figures	vii
Chapters:	
1. Introduction.....	1
2. Methodology.....	5
3. Research Bias.....	8
4. Setting.....	14
5. The Study.....	17
6. The Findings.....	26
7. Questions and Conclusions.....	41
List of References	45

Appendices:

Appendix A – My Reflections on Email Assignments	46
Appendix B – My Observations during Grading Periods	50
Appendix C – Correlated Survey Responses	55
Appendix D – Student Survey	62

LIST OF TABLES

<u>Table</u>	<u>Page</u>
Table 1	14

LIST OF FIGURES

<u>Figures</u>	<u>Page</u>
Figure 1	15
Figure 2	20
Figure 3	22
Figure 4	23

CHAPTER 1

INTRODUCTION

As technology in the world evolves, and the educational systems in the United States grapple with keeping pace, often with limited budgets, what was new and innovative one year is obsolete the next. It is imperative that educators choose wisely the technologies they implement within the curriculum, not merely for fiscal considerations but for the technology's ability to enhance student learning and the relevance to the student's future learning. Engaging students in new technologies merely because of the newness or trend may not benefit the student's future learning or enhance the student's current learning.

One technology seems to have surpassed trend and newness and is becoming an essential part of daily life and learning. In fact, this technology may not, for the many engaged in its use, seem new. Email, digital communication via the Internet, has evolved from a text-only correspondence tool to a multimedia, although still text-based, instant communication tool with flexible attachment abilities and cross platform compatibility. Email is an essential part of the social lives of many young people.

In pursuit of defining a viable place for email as an educational tool that enhances student learning, I carried out this study in an art course that incorporated email as a part of the method of instruction. The course I taught dealt with the realm of art called computer animation. It encompassed three yearlong classes and one double blocked semester class of students; grade levels nine through twelve, during a one-year period. This study demonstrated the enhanced learning that took place using email and the related educational implications that I have drawn. It also illuminated the difficulties and benefits this method had on the students' ability to learn course objectives, as well as the teacher's ability to facilitate this technology. The focus of this study was on a variety of assignments and not on a single lesson. This study incorporated data from student feedback surveys completed over a one-year period, and highlighted the changes and modifications implemented as a result of these surveys, and other anecdotal data that I generated as a teacher-researcher.

The purpose of this study is to identify the need for education to sensibly adapt to the increasingly ever-changing technologies that will affect the students' future success in learning. It is critical that a student not be handicapped by the inability of any educational system to respond to changing needs created by technological advancements. More specifically, it is the purpose of this study to underline the ability of enhancing student learning within curricular objectives when these new strategies are incorporated. Student adaptation to using email as

an instructional tool in regard to their ability and comfort with this tool was paramount in the inquiry of this study. I explored student and teacher expectation shifts as a result of the issues.

The following questions guided research:

Enhancement of learning

Does the incorporation of email as an instructional tool enhance the student's ability to learn?

Challenges of method

What problems result and have to be overcome when email is incorporated as an instructional tool?

Relevance to student daily lives

How does email used as a instructional tool apply to the students' daily lives?

Relevance to future learning

What implications can be drawn about the students' ability to apply this technology to their learning in the future?

Student expectations

How does this instructional tool influence the students' expectations of the learning context?

Teacher expectations

How does this instructional tool influence the teacher's expectations of the learning context?

CHAPTER 2

METHDOLGY

I used case study methodology to develop an understanding of the use of email as a tool in the classroom. As a teacher researcher, I had the unique opportunity of observing the tool and its effects in action from within the community studied. The methodologies reflect the standards of case study outlined by Robert E. Stake in “Case Study Methods in Educational Research: Seeking Sweetwater,” a chapter in Complementary Methods for Research in Education edited by Richard M. Jaeger (1997), as well as my conversational course notes from a dialogue with Dr. William Loadman, a professor at The Ohio State University, who specializes in qualitative educational research.

In order to obtain a broad understanding of this particular case, I used a variety of modes to collect information. I analyzed relationships among these collections of information. I found common threads within this evidence and used them to generate credible answers to the guiding questions.

The information I collected in the study comes from the following areas:

Reflections of Lessons Incorporating Email

At the end of each lesson I made journal notes regarding the success of the learning objectives and how email may or may not have influenced outcomes.

Grading Period Reflections

I made general journal entries were made at the end of each grading period in regarding the success of the learning objectives, how email may or may not have influenced outcomes, and observations of student interaction with email.

Samples of Email Interactions/Assignments

These samples include student-teacher communications through email and specific assignments using email.

Student Surveys

Surveys addressed issues within the class, some of which specifically related to the scope of the study.

I also remained open to evidence that might occur outside these modes.

The previously stated six questions guided my research. Although I could have modified these questions in an appropriate manner to meet the emerging evidence as this information was collected, I did not alter the questions in such a way as to jeopardize the credibility and focus of the investigation. It was my goal in this research to obtain qualitative evidence that supported and pointed to the discovered answers to these questions. It was my hope that relevant correlations and insights could be gleaned from these answers to guide similar pursuits in using email as an educational tool within the classroom.

CHAPTER 3

RESEARCHER BIAS

A major influence in my practice comes directly from two related school reform movements. The first, The Coalition of Essential Schools, is a school reform network of nearly 1000 schools and 24 regional centers around the country and abroad committed to improving student achievement by redesigning the school according to a set of ideas put forth by Theodore R. Sizer, PhD. in Horace's Compromise (1984). Key to this particular influence is the ten common principles. Although the statement of these principles is originally written in language relating directly to the school, I have modified the language so these principles became "I" statements:

1. I will focus on helping young people learn to use their minds well.
2. I will help each student master a limited number of essential skills and areas of knowledge shaped by the intellectual and imaginative powers and competencies that the students need. The aphorism "less is more" should dominate: my curricular decisions should be guided by the aim of thorough student mastery and achievement of the essential knowledge and skills rather than by an effort to merely cover a vast amount of content without regard to student learning.

3. I will apply the school's goals to all students, while the means to these goals will vary as those students themselves vary. My practice should be tailor-made to meet the needs of every group or class of students.

4. My teaching should be personalized to the maximum feasible extent. I will make decisions about the details of the course of study, time, and the choice of teaching materials and specific pedagogies that capitalize on this personalization.

5. I will focus on the metaphor of student-as-worker and teacher-as coach, rather than the more familiar metaphor of teacher-as-deliverer-of-instructional-services. I will coach my students and provoke them to learn how to learn and thus to teach themselves.

6. I will document and assess with tools based on student performance of real tasks. I will provide intensive support and resources to students not yet demonstrating appropriate levels of competence so as to assist them quickly to meet those standards. I will use multiple forms of evidence, ranging from ongoing observation of the learner to completion of specific projects, to better understand the learner's strengths and needs, and to plan for further assistance. I will give students opportunities to exhibit their expertise before family and community. I will place emphasis on the students' demonstration that they can do important things.

7. I will stress values of unanxious expectation ("I won't threaten you but I expect much of you"), of trust (until abused) and of decency (the values of fairness, generosity and tolerance).
8. I will perceive myself as generalist first (teacher and scholar in general education) and specialists second (expert in but one particular discipline).
9. I will ask for and support student-centered administrative choices, which include, in addition to total student loads per teacher of 80 or fewer pupils on the high school, substantial time for collective planning by teachers, competitive salaries for staff, and an ultimate per pupil cost not to exceed that at traditional schools by more than 10 percent.
10. I will demonstrate non-discriminatory and inclusive policies, practices, and pedagogies. I will model democratic practices that involve all who are directly affected by the school. I will honor diversity and build on the strength of its communities, deliberately and explicitly challenging all forms of inequity.

The second influence is my affiliation with the National School Reform Faculty (NSRF) in working with Critical Friends Groups (CFG).

National School Reform Faculty:

"The mission of the National School Reform Faculty is to foster educational and social equity by empowering all people involved with schools to work

collaboratively in reflective democratic communities that create and support powerful learning experiences for everyone"(Harmony School Educational Center, 2001). NSRF believes professional development for educators should focus on the creation of these learning communities.

Critical Friends Groups:

1. Focus on improving students' learning and success as the center of the work.
2. Consist of generally 4-12 educators who meet regularly for a sustained and focused period of time (usually during the school day) to work and learn together, and who observe each other's practice and give feedback to each other on a regular basis.
3. Build trust by engaging in significant work while providing a safe environment for taking risks.
4. Make their work public ("deprivatize" their work); they collaboratively examine and give usable feedback on work done by their students and on their own work (e.g. teaching practices, curriculum, and school culture issues).
5. Encourage diversity of thought, experience and perspective.
6. Draw on their personal expertise, as well as on the expertise of "outside" resources.

7. Engage in reflective discourse based on the ideas contained in "texts" of various types.
8. Engage in reciprocal learning (everyone learning from everyone, within learning communities and in NSRF as a whole).
9. Share leadership within the group.
10. Hold themselves accountable for continuous improvement toward helping every student (child) learn.
11. Are facilitated by a "coach" who has received high quality training and on-going support, and who has been drawn (selected) from the immediate educational community or from the ranks of trusted outsiders.
12. Continuously challenge one another to adapt practice towards fostering educational and social equity.

In this Critical Friends Group venue I have assumed leadership roles as coach and trainer of coaches, and have participated in a CFG for eight of my eleven years teaching. This experience, together with the philosophy of The Coalition of Essential Schools, has greatly influenced my educational pedagogy. It would be impossible to separate these influences from my research and should be considered as a strong bias in culmination of this work. However, I believe that even with this in mind, this research honestly and accurately address the guiding questions and create a better understanding of how this technology enhances student learning.

It was these influences that drove my decision to conduct this study because it directly corresponded to improved student learning in my classroom. The continual pursuit to improve my teaching practice and therefore improve student learning, forces me to regularly analyze and study the practices used in my classroom. This study, though more formal in nature, is one of many observations I make during the school year to direct the changes that improve my practice. Although the ramifications of this study are personally motivated, it has been and will be shared within the educational community in which I participate. Thus, it can become shared knowledge that others may find useful in improving their practice.

CHAPTER 4

SETTING

This study took place at Reynoldsburg High School in Reynoldsburg City Schools. The city of Reynoldsburg is a suburb of the city of Columbus, Ohio, and in 2000 had a population of 32,069. According to the U.S. Census Bureau Fact Finder, Profile of Selected Economic Characteristics: 2000 (2002), the median household income in Reynoldsburg is \$51,108. However, there is significant economic diversity that is evident in the breakdown of this data as follows in the table presented below.

U.S. Census Bureau	Reynoldsburg, Ohio	
Households	12,788	100.0
Less than \$10,000	597	4.7
\$10,000 to \$14,999	465	3.6
\$15,000 to \$24,999	1,321	10.3
\$25,000 to \$34,999	1,693	13.2
\$35,000 to \$49,999	2,143	16.8
\$50,000 to \$74,999	3,338	26.1
\$75,000 to \$99,999	1,804	14.1
\$100,000 to \$149,999	1,139	8.9
\$150,000 to \$199,999	177	1.4
\$200,000 or more	111	0.9

TABLE 1

Most occupations of the residents of Reynoldsburg are "white collar." Also, according to the U.S. Census Bureau Fact Finder, Profile of Selected Social Characteristics: 2000 (2002), ninety-one percent of the residents over twenty-five years of age have obtained a high school diploma and twenty-seven percent have obtained a bachelor's degree or higher. There is a fifteen percent minority population which is predominantly African American. The preceding data helps illustrate the community in which my students reside and for which the high school serves.

The City of Reynoldsburg has one high school that has population of 1915 students, some of which attend Eastland and Fairfield Career Centers. The State of Ohio 2002 Report Card (2002) data for Reynoldsburg City Schools as follows:

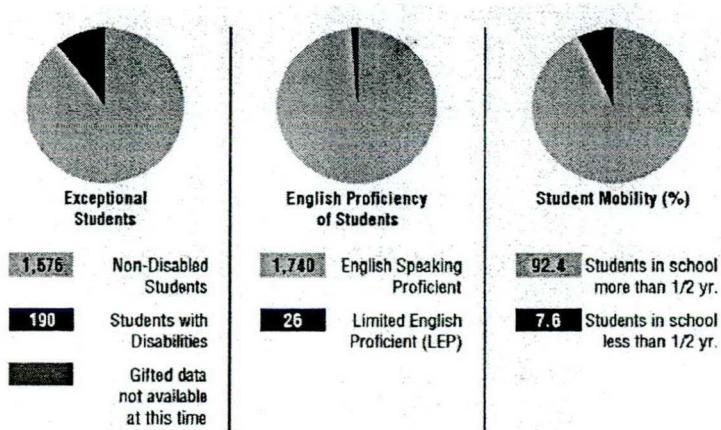


FIGURE 1

This study took place in a classroom that had 20 student computers, 20 student desks, and a teacher computer attached to an LCD projector. All of the

computers were connected to the Internet. Students also had access to the school's library computers during off-class-time during the school day. Many of the students had Internet access at their homes; however students had success in completing this class even without home access. The course, computer animation, encompassed three yearlong classes and one double-blocked semester class of students, grade levels nine through twelve.

The student population in the classes I studied reflected the population in regard to race but was predominantly male; out of 48 students, 4 were female. The yearlong classes met for 55 minutes once a day for the school year, and the double block class met for 115 minutes once a day for a semester. Due to scheduling conflicts, the double-block class had only eight students. Both classes, within their given time-frame, had to accomplish the same curricular goals.

CHAPTER 5

THE STUDY

Student Tasks Involving Email

The assignments I focused my study on during this course were both homework, which I referred to students as “out of class work,” and reflective responses to activities students engaged in while in class. The assignments varied in length and frequency throughout the duration of the course. Although students communicated informally via email the required assignments dictated that all students had to formally use email nine times.

The first email assignment was a reflective response to an in-class activity that took place during the first three periods of my class (My double block did this activity in one and a half class days). The activity is a modification of an experience facilitated by Terry Barrett, PhD in a course I was enrolled in at The Ohio State University. In this activity, the students were given post-it notes and told to individually write down four reasons they know something is art. They were then divided into groups and told to make a consensus group-list of these reasons, which they then reported out to the rest of the class. Next, I facilitated a brief

discussion about the issue that inevitably came up in each class: “Mr. Timmons, everything is art.” I gave an analogy about walking barefoot in the park and stepping in something a dog left behind. I told my students, “We don’t respond by saying, ‘Oh my, I just ruined a piece of art!'” The students were then instructed to return the next day with an item from home that they believed was definitely art and an item from home that was definitely not art. The following day, items in hand, the students placed the items in a continuum on the floor ranging from the most “art like” to the most “non-art like.” They were then told that without talking they needed to arrange each item along the continuum until they reached a group consensus about the placement of these objects. After much grunting and shuffling and compromise the students came to an agreement about their collection.

I then facilitated a discussion about the final arrangement before them, using questions such as; “Why do you think everyone agreed that this item belonged here?”, “If you guys thought that this item belonged here why did you place this similar item here?”, “What makes this item more ‘art like’ than this other object?”, and “What makes the item at the very end of the ‘non-art like’ continuum different from the very end of the ‘art like’ continuum? I then ask the students to break into equal groups and brain-storm at least six characteristics of the objects on the far “art like” end of the continuum and six characteristics of the objects on the far “non-art like” end of the continuum. The students reported out these characteristics. I encouraged them to add any good characteristics that other groups

came up with to their new list. The next day the students reviewed the list and created a definition of art within their group. The students then wrote their group's definition on the board and the class combined these definitions into one class definition. From this discussion and using their own personal biases, I asked the students to email me their answers to these two questions. "What is your definition of art?" "Using this definition, explain the answer to the question: Is computer animation art?" Thus the students had to synthesize the in-class work and apply it to a new situation.

The second assignment involving email was the creation of a metaphoric scale that the students used to critique professional work. The students created a five-tiered rating scale that they could use in evaluating an animated work. These scales were similar to the rating scales used on movies or book by critics. Each rating had specific student-generated criteria. The rating metaphor related to individual student interests that ranged from football plays to skate board tricks.

The following scale is an example of one student's work:

Rating	Criteria
Crayons and a placemat	Graphics (drawings) look like a little boy freehanded them with three crayons at Cooker (yes, the restaurant). It is amateur and unprofessional. Colors don't scheme well, and don't match the character or animation. Animation looks like those five page flipbooks you do in kindergarten. Choppy, jagged, and simply made. Doesn't look like it took time and hard work.
Pencil and notebook paper	Graphics look like you drew them in math class when you're bored out of your mind from the teacher rambling on about the Pythagorean Theorem. Average but still amateur, little less cartoony. Colors don't blend at all, but somehow match the character and background. Animations look like stick figures meet the matrix (e.g. Stickdeath.com). Choppy still but little more complicated, and somehow manage to entertain you.
Charcoal and sketch paper	Graphics reflect a sunny day sitting in the shade with your Peel & Sketch charcoal pencil and a nice sketch notebook. Looks like it took time and care, but still done by an amateur. Colors somewhat blend and match character and background. Animations remind you of KaBlam! On Nickelodeon. Complicated, in depth, entertaining, but quite amateur looking, and not realistic looking. It needs to be better thought out when animating, so it doesn't look disconnected, and apart.
Paint and canvas	Graphics remind you of a wounded man staring through bars of steel at a beautiful starry night, and reflecting all of this on a beautiful canvas. Wonderfully done, hard work, but still something is missing, not detailed enough. Colors blend well, and scheme well, and go together with the character and background. Animations are like the classic days of Bugs Bunny, or a nice episode of Dragonball Z. Beautifully done, processional, smooth, but not complicated, no real meaning or point. Animations are done fairly well, and go together and are not overdone.
Chisel and stone block	Graphics equivalent to the beautiful smooth work done on the Venus Di Milo, elegance, quality, and beauty. Wonderfully done, top notch, couldn't be better. Colors are beautifully schemed, and match perfectly with the background. Animation is like the best four-hour special of Gundam Wing you ever saw. Meaningful, interesting, beautifully done, professional, and smooth as can be. Almost no need, if any room for improvement at all.

FIGURE 2

Students were required to email their rating system to me by midnight of the date of completion and I gave them an evaluation in reply. I encouraged the students to modify their work to reflect this evaluation. This assignment was then integrated into future assignments the student had to complete. During the first, second, and third six weeks, students made critical reviews of a website, an animated episode or movie, and an animated character. The students used the following questions to evaluate a professional work:

- 1) What is the title of the animation?
- 2) What was the broadcast channel and time or video/DVD Release Company and date?
- 3) Give a visual description of animation: (*Describe the color, shape, style and overall look*).
- 4) What quick rating would you give this animation: (*Use quick rating scale here*).
- 5) What do you think about the visual quality? What is your rationale for this opinion? (*In other words, how good or bad do you think it looks and explain your answer?*)
- 6) What was the overall story summary?
- 7) What do you think is the objective of this animation?
- 8) Explain how successful the animators were in achieving this objective.

I modified these questions to meet the focus of each assignment. For example, I used the language above in the critique of a professional animation. The questions, when used to critique a website, are modified and the word “animation” is replaced with “website” and “story” with “theme,” but overall the guidance of the critique was the same. In order to ensure that the students had clear expectations of the final product, I gave them the following rubric that would be used to grade these questions. This rubric was thoroughly reviewed in class prior to students beginning to work on their own.

Critique Rubric

Visual Description: 10

5	6	7	8	10
Includes a few details that allow the reader to get a base idea.	Includes some details that allow the reader get a general perception.	Includes enough details that allow the reader to create a mental image.	Includes details that allow the reader to reproduce.	Includes specific and clear details that allow the reader to reproduce with exactness.

Quick Rating: 10

5	6	7	8	10
Based on “good”, “OK”, or “Bad”, type of scale.	Based on a point scale with one end being the “lowest” and the other being the “highest.”	Based on a point scale with general criteria.	Based on a metaphoric scale with general criteria.	Based on a metaphoric scale with detailed specific criteria.

Visual Quality and Rationale: 30

15	18	21	27	30
Vague references to quality.	Quality somewhat explained using general terms.	Quality explained using general terms.	Quality explained using specific artistic terms and some relevant comparisons.	Quality explained in detail using specific artistic terms and relevant comparisons.

Overall Summary: 10

5	6	7	8	10
Includes a few details that allow the reader to get a vague idea.	Includes some details that allow the reader get a limited perception.	Includes enough details that allow the reader to create a perception.	Includes details that allow the reader to create a good perception.	Includes details that allow the reader to create an exact perception.

Critique Rubric (Continued)

What do you think is the objective? 10

5	6	7	8	10
Objective unclearly stated.	Objective generally stated.	Objective generally stated and somewhat explained.	Objective clearly stated and somewhat explained.	Objective clearly stated and specifically explained.

Explain how successful in achieving this objective: 20

10	12	14	16	20
Little determination of success, i.e., "Yes, it was on TV"	Determination of success generally stated.	Determination of success generally stated and somewhat explained.	Determination of success clearly stated and somewhat explained using relevant comparisons.	Determination of success clearly stated and specifically explained using relevant comparisons.

FIGURE 3

I again set the due date for the receipt of the emailed assignment at midnight of the date of completion. Students sent this work to an assigned student in class and copied this message to me. I evaluated each assignment, referring the student to the rubric and sent this response back to them using the email tool "reply." The students receiving these critiques also evaluated this work using the rubric and forwarded this evaluation to me as part of a secondary assignment.

The following rubric was used to evaluate the reviews of student work:

*Secondary Evaluation*Review Rubric <i>Using the Critique Rubric rate the critique in each area and explain why this rating was given.</i>				
6	7	8	9	10
Ratings given with limited explanation.	Ratings given with general explanation.	Ratings given with some general explanation and some clear and specific explanation.	Ratings given with a clear and specific explanation.	Ratings given with a clear and specific explanation and relevant examples.

FIGURE 4

The goal of this assignment was threefold.

1. To expose students to professional works
2. To give students a guided experience in critiquing this work
3. To examine, through a meta-critique, how their peers critiqued this work.

It was not to expose the students to professional critiques of this work.

In another series of assignments, the students responded to a writing prompt related to a video segment from the *Masters of Animation* series by John Halas. The goal of these assignments was to expose students to artists and concepts in the area of animation from a variety of cultures. They watched volume 4, *Japan*, which reviews historical Japanese animation previous to the “Japanimation” which the students are familiar. After viewing this video, the students responded to the question concerning one particular animation by Kinoshita involving the dropping of the atomic bomb. The question was: “Why should artists create animations that make social commentary about the world?” The students also watched volume 2, *Great Britain*, which reviews British master animators. The prompt for this video asked; “What relationship would you most like to tell about in an animation?” Next, the students watched volume 3, *USSR*, which exposed students to great Russian animation. This writing prompt was: “What are the similarities and differences between these animations and the animations you see in the United States?” Each time the students responded to these questions I compiled them and

sent them collectively to each student. No grade was assigned to this particular assignment but the students understood that not responding to these prompts would consequently produce more assigned work that would be graded.

Another assignment that primarily relied on email was the “Story Chain.” I started this assignment by emailing one student in the class the beginning of a story from an obscure Grimm fairy tale, “The Goblins,” and instructed the student to add two sentences to further the story. The student forwarded the entire story plus their additions to the next student until all of the students added their part to the story. After receiving the completed assignment, I send it and the original story to all students with the following questions:

1. How does the story line in the version you created compare to the story line in the original version?
2. Where in your version does the story fall apart or become awkward?
3. How could these flaws create problems in producing a successful animation?

The students responded to these questions and I replied with a grade dependent on their thoughtfulness and amount of detail. I compiled these responses and emailed them to the class. This assignment made the students become aware of the importance of story in animation. It highlighted the problems that may happen and illustrated where portions of the story line go awry.

CHAPTER 6

THE FINDINGS

Using the following questions, I will propose answers supported by my research which include reflections on lessons incorporating email, grading period reflections, classroom observations, samples of email interaction and assignments, and student surveys. In this manner not all data will be sequential.

Does the incorporation of email as an instructional tool enhance the student's ability to learn?

The answer to this question is arguably a difficult task without a direct comparative; however, I would affirm through my research that the incorporation of email as an instructional tool of teaching did enhance the student's ability to learn. In fact, the ability to provide an immediate connection between the students created opportunities for these students to participate in a learning community that would not have been available to these students otherwise.

In my class there were often discussions about students communicating with each other using email. Discussions ranged from verbal appreciations of

answers regarding fellow student's email inquiries to continued discussion of conversations started by the use of this tool. When asked in an end of the course survey, 62.5% of the students stated that beyond the assigned correspondence they emailed another student regarding some aspect of this course. Beyond this I witnessed evidence of email interactions between students to improve their work that I had not encouraged. For example the following is an excerpt from a sample I collected:

From: "**Student A**"

To: **Student B@hotmail.com**

Subject: Re: animation critique (missing something)

Date: Thu, 15 Nov 2001 10:55:55 -0500

Student B

Thank you for sending your critique, but you are missing your critique scale. I don't know what do'h means, lol... If you could send it one more time to me with the scale and that way you won't get points taken off.

Thanks!

The ability of these two students to quickly communicate outside the class created an opportunity for a student to improve his work. This opportunity would not have been available if this lesson was facilitated inside the classroom or as traditional homework, specifically because of the limitations and restrictions inherent to traditional methods. Within either setting, students are not encouraged to allow others to see their work and are often times penalized for doing so. In addition,

even students who are allowed to collaborate oftentimes do not simply because they are unable to be at the same place at the same time so that they can collaborate. Email as an instructional tool encourages a dialogue between students that traditional methods are often unable to facilitate.

Another unexpected beneficial aspect of this tool, in regard to enhancing the students' ability to learn, came from some of the common responses I found in a survey question about the benefits. This was best stated by one of my students who wrote:

I could complete the assignments at my own leisure. Being able to write them at home on my email made the out of class assignments not seem like work. I could even do them at a friend's house if I felt like it. I also liked the fact that I could write it, then send it and it would be out of my way and I wouldn't have to worry about losing it.

The common appreciation of convenience in what the students consider their hectic world seemed to encourage them non-coercively to enthusiastically generate work. Some students indicated their desire for all classes to format homework using this tool. Thus by creating easy access to learning communities, flexibility in facilitation, and convenience in application student learning was enhanced by using email as an instructional tool. The work generated using this tool compared to the work generated using traditional tools, in my experiences with

students, was of higher quality in content and success in meeting my learning objectives. This claim is supported by one of my students who stated, "I think that using email is a great advantage in class. I use email to turn in assignments in two classes and I think that I create some of my best work in them."

What problems result and have to be overcome when email is incorporated as an instructional tool?

This question focused my research on some obvious and some surprising issues that occurred during the implementation of email as an instructional tool. First and foremost was the ability of the students to properly use this format in an academic setting. Inevitably students used language that they use with friends developed in online chat such as, "lol" which means "laugh out loud" or "i" and "u" for "I" and "you." This, together with improper use of grammar, instigated the need for discourse with students about typing their work in a word processor previous to creating the email to send an assignment. Although creating the understanding that the students need to be more academic in their email communications in regard to assignments is not difficult, students sometimes relapse into this "Internet lingo." Many interesting discussions with students about this relapse imply that the students' primary use of this tool is not academic and the students have to make a conscious, concerted effort not to communicate in the language they normally use in their email. This situation appeared throughout the

year but the bulk of this problem was resolved after the first six weeks of class. After this initial time period, only gentle reminders to students were needed. However, because students consciously focused on this issue, the overall quality of their writing, in regard to grammar and spelling, increased throughout the course.

One surprising problem that occurred was that a few students did not have an active email account. The surprise was twofold. First, having an email account was a prerequisite to taking the course. Second, the one or two students in class who did not have an email account had to be ferreted out. I use the word ferreted because at the beginning of the class I asked if anyone did not have an email account and got no response. The discomfort of students to publicly display their perceived shortcomings was so high they were unable to communicate this simple fact. It was only after I called students up to me and inquired why the first assignment was missing that they revealed they did not have an email account. All of these students either resolved this issue independently or came in after school and I walked them through the process of signing up for a free online email account.

Related to this issue was the students' knowledge of how to cut and paste from a word processor to the body of the email, correctly format and attach files, and forward email. All students claimed to be very proficient at sending email. Being able to transfer text from one program, such as Microsoft Word, to another

after it had been proofed was not a skill many students had mastered previous to this course. The ability of the students to quickly learn and adapt to these new skills, however, was remarkable and took a minimum amount of my time to facilitate.

Another problem I encountered was the “lost data syndrome” which I defined as emails sent improperly by entering the wrong email address or emails lost through a technical “glitch” with the student’s email service or computer. However, at the beginning of this course as a part of the syllabus for my class, I had addressed this issue by informing students that they should save all emails before they sent them to me. I also explained to the students if they did not save this data and it was lost, that it was comparable to the “dog eating the homework syndrome” and would receive no grade. Because this issue was previously addressed, most of the students had a back-up copy of their work stored on their computers or had saved their messages in their “sent” folders of their email.

Another surprising problem dealt with student expectation that will be explored in more detail in the following sections of this paper. The expectation of the students that immediate feedback was going to be given on assignments and inquiries was a comical misunderstanding among my students. My students, and their belief that I feverishly monitor my email in and out of school, replicate the common misconception of elementary students that their teachers lived at school.

This expectation, although very unpractical, did create some modifications in my practice which I will discuss later.

Another situation was isolated to one student but deserves to be mentioned was a “hate mail” email I received towards the end of this course. A student was extremely unhappy about a grade he received and in the heat of his anger decided to email me his concerns in a very unflattering manner. More pointedly, one of his milder comments stated, “I hate you.” I replied to his email by reviewing the criteria I had for that particular project and how I applied it to his work. I also relayed my concern about the tone of his email and encouraged him to speak with me in class. The next day he explained that in fact he was angry at the time he sent the email and “wished it had never been sent.” He apologized and seemed very embarrassed. I will use this situation as an example for future classes so they will be advised not to send emails in “the heat of the moment.”

Overall, the problems that occurred were not prohibitive to the use of email as a tool for learning. The students were flexible and adaptive to the modifications of a tool they did not previously use as educational. One student commented: “I have been using email for quite some time now. When communicating with the teacher I was more formal in my writing. There was nothing uncomfortable about it.” The organizational benefits both for the students and me far out weighed the minor distractions made in adjusting this tool to best fit instructional needs.

Another student sentiment is summed up in this statement: "I think it's a great way to keep organized. I wish every student carried a laptop with them and we did stuff with email all the time."

How does email as an instructional tool apply to the students' daily lives?

The majority of students had previously used email to communicate with friends. For these students email was already an important part of their daily lives. Their comfort level added to the students' ability to communicate their learning. This was very evident in relationship to my past practice. In the past, I have asked students to write a three-page report on an artwork and I have received a tremendous amount of resistance from them. Now, I am receiving three such reports via email with very little student concern to the length of each assignment. Each of these assignments average three to four printed pages. The use of email in this way encourages students to generate knowledge in a manner that is already essential to their daily lives.

Another benefit of this tool, as stated previously, was the convenience email has to be incorporated into the students' lives. One student verifies this "Technology is becoming a bigger part of life." Using this tool produces an overall sense of comfort among many of the students because, in their minds, it is an

essential part of their lives and the students' expectation of their future needs. This comfort was reinforced through private communications with peers and teacher, as well as the knowledge "that if you needed something answered you got an answer that day most of the time." With few exceptions, students placed great value on using email as a preferred tool of learning. This importance to the students is directly related to the use of email in their daily lives. Pencil and paper is rarely used in their daily experience out side the school day and is often considered laborious "busy work." Without this negative connotation of busy work, educational endeavors using email became a part of students' daily lives that they valued.

What implications can be drawn about the students' ability to apply this technology to their future learning?

According to the National Center for Educational Statistics (2002), "The percentage of two and four year institutions offering distance education classes rose from thirty three to forty four percent between the fall of 1995 and 1997, and the number of such classes nearly doubled. One-fifth of the nation's two and four year institutions also planned to start offering distance education courses between 1998 and 2001." Thus, the ability of the student to use email in a learning environment for future educational endeavors is of increasing importance. The Ohio State

University, where I am currently enrolled, facilitates all student scheduling, fee payment, and student news through email and other online services. Students who are unable to use this tool will be handicapped in their ability and opportunity to learn.

Students who completed this course have become effective at using email as a tool for learning and will not be subjected to such handicaps. Their ability to understand and facilitate the academic use of email, as well as their appreciation of the value this tool brings to their ability to learn, can only benefit their pursuit of learning in the future. Beyond this, their ability and comfort at using email to create an educational dialogue with their peers and instructor has the potential of an ever expanding learning community. In this learning community, the perceptions and attitudes of the students using email encourages increased quality of their learning, and the continued pursuit of future knowledge. Because of this encouragement, and the significant relationship between the use of email and the students' daily lives, learning becomes integrated further into their daily experience. Thus, future learning becomes personal and increasingly valued.

How does this instructional tool influence the students' expectations of the learning context?

The students' expectation for immediate and instantaneous feedback was greatly increased by using email. This excerpt from my journal illustrates my concern with this issue:

I have received several emails during the weekend or late at night with questions concerning email and in-class assignments. The student's expectations that I am available as a resource twenty four hours a day caught me off guard.

One email in particular accentuated this attitude among students:

From: "Student C"

To: thomiet@yahoo.com

Subject: Hey Thomie

Date: Thu, 15 Nov 2001 20:18:41 -0500

Thomie,

This is "Student C". I forgot how to grade the critiques. Try to reply back to me before 11pm or so. Thanx

See ya tomorrow.

"Student C"

The previous email was sent at 10pm with the expectation that the student would have a reply by 11pm. Even though I consider myself to be prompt in returning student work and answering student questions, I find this expectation real

to the student but not real to the organization of my life. My ability to give quick feedback to student questions and work seems to encourage this unattainable expectation the students have of their teacher. The students and I resolved this issue by giving them set times that I would check my email. This seemed to satisfy the expectation of the students. I agreed that I would check my email at the end of the school day and on Saturday at 7pm.

Another expectation of the students that developed while using email was not regarding the teacher but their peers. “The greatest benefit to using email is that it allows students to communicate with each other outside of class,” one student stated in the survey. As part of this learning community through email, students expect responses from each other to questions and concerns. Students challenged each other when a response was not prompt or if the response was not confirmed. Because we are using email in class everyone, including their peers, students expected that everyone should be checking email regularly. For some students the expectation went beyond a five day week stating, “Even on the weekends we could talk to our peers.”

Finally, the students believed that by using email to facilitate tasks, it was easier for them to accomplish these tasks. Both the ability of the student to generate rigorous work without comment and the common survey results indicated a direct relationship they made between email and the ease of doing. For example,

many students concurred with this statement: "The greatest benefit was that turning in work was quick and easy."

How does email influence the teacher's expectations of learning context?

One major change in my expectations was when assignments should or could be turned in by the students. Most of the assignments I gave using this tool were due at midnight. Instead of the assignment being due during the class time a due date and time could be selected outside the school day. Students responded very well to this change in my expectation. One student stated, "The greatest benefit was being able to wait until 11:30 if you have a lot of things to do." The idea that students work can be turned in beyond the scope of the school day was facilitated by the use of email as an educational tool. Previous to this experience my idea of the learning scenario was limited by the scope of the school day. Although some may argue that this is only a perceptual condition that was created, I believe the perception of the students enabled the teacher to create a personalized environment that induced a greater and more intense participation in learning.

Another expectation that was created by the use of this tool was the increased urgency with which I believed I should not only respond to student questions but respond to student work. No longer was there any comfort in

leisurely grading work or the organizational hazard of stacks of loose papers organized by classes. Mirroring the student attitude of ease of facilitation, I developed a sense of efficiency and speed. This had two consequences. The first was the positive consequence of organization. Having all the students' work located in a digital domain in my email that could be sorted by folder and accessed from school or at home allowed me to focus more of my attention to grading and less attention to sorting and transporting. This was particularly refreshing because organizing loose student work is not one of my strongest skills as a teacher. The second consequence, however, was that the pressure of immediately responding to student work and questions, was overwhelming. It forced me as an educator to set limits to my own expectations, and although my responses were prompt, they were deliberate and thoughtful.

My expectation of students' abilities to communicate with me greatly increased. Students who were quiet and reserved in class seemed much more comfortable making inquiries through email. I was able to make personal connections with students that would not have otherwise been made, help students who would not otherwise asked for help, and thus encouraged and increased the students' ability to learn. The discomfort of students to publicly display their perceived shortcomings that was so high they were unable to communicate was resolved by using email. Students could confidentially inquire about questions or concerns without concern for public ridicule. The students believed email provided

“the privacy needed to address certain things without the risk of being overheard.” I had previously believed I could create an atmosphere where most students felt comfortable in class. However, using email has accentuated how wrong my previous impression was of this comfort level. I have an increased expectation of my students’ opportunity to communicate with me in a non-threatening environment. It would imply that if I now can answer questions by students that would have gone unasked, the students are given more information and confidence to apply to their learning.

CHAPTER 7

QUESTIONS AND CONCLUSIONS

Many more questions could be asked to further the dialogue about using email as an instructional tool. Such as, are male students more comfortable using email as an instructional tool than females? Having an elective course that is primarily selected by males brings to mind many gender questions related to technology. Another question may address the availability of email access to lower-income families and how this may handicap their children's abilities and opportunities to learn. This case study can not address these issues. Few of my students come from affluent families yet few would be considered impoverished.

Furthermore, questions about how this tool may be applied across the curriculum through interdisciplinary endeavors or within course outside the scope of this study. For example, how could this tool be used within a mathematics course as an instructional tool? The environment in an art class, as well as the curricular needs, may be too dissimilar to make any reasonable correlations from this case study that could be used to guide the implementation of this tool.

Other questions may address how email can facilitate learning between classes over great distances between countries and what multicultural implications could be found. What learning could be facilitated by this tool from a dialogue about Sandy Skoglund's *Cats in Paris*, between a class in the United States and a class in France? Other questions may be directly related to the ever expanding learning community this technology generates. However, before these questions are investigated, the essential questions about the value of email as an instructional tool must be addressed.

I have proposed answers six questions to the issue of incorporating email as an instructional tool. These answers are supported by my research which includes reflections about lessons incorporating email, grading period reflections, classroom observations, samples of email interactions and assignments, and student surveys. The assignments I focused my study on during this course were both out of class work, and reflective responses to activities students engaged in while in class. These assignments varied in length and frequency throughout the duration of the course. Although students communicated informally via email the required assignments dictated that all students had to formally use this tool nine times. I have also indicated that a major influence in my practice came directly from two related school reform movements: The Coalition of Essential Schools, and my affiliation with the Nation School Reform Faculty (NSRF) in working with Critical Friends Groups (CFG).

Using data collected from reflections of lesson incorporating email, grading period reflections, samples of email interactions and assignments, and student surveys, I have generated a broad understanding of this particular case with a variety of modes to collect information. I have drawn relationships among this information, analyzed these relationships, and offered insights to the study's guiding questions. Using a case study as the method of research I developed a greater understanding of the use of email as a tool in the classroom.

This study allows me to conclude that the incorporation of email was an instructional tool of teaching enhanced the student's ability to learn. What problems resulted and had to be overcome when email was incorporated as an instructional tool were not significantly challenging to either the teacher or students as to discourage its use. This instructional tool applied to the students' daily lives in a manner that incorporated learning into the students' lives and encouraged life-long learning. The use of this tool in my class enhanced the students' ability to apply the results of learning with this technology to their learning in the future. The influence this tool had on the students' expectations of the learning scenario benefited, without hindering, this environment. Furthermore, teacher expectations using this instructional tool expanded the scope of the learning scenario.

The purpose of this study was to identify the need for educators to sensibly adapt to the increasingly ever-changing technologies that are affecting the students' future success in learning. In this pursuit I have defined a viable place for email as an educational tool that enhanced student learning within my class room. This study focused on the qualitative nature of incorporating this tool and it is exactly these qualities teachers can use to correlate this study with their own practices. In education, replication through quantitative data implies sameness in teachers and students that cannot be realistically produced within the educational environment. As teachers grapple with keeping pace with evolving technology in the world, and the educators measure their reactions to the new and innovative, this study can provide guidance in making decisions in regard to email as a tool for learning. It is imperative that educators choose wisely the technologies they implement within the curriculum. It is the intent of this study to present email as one technology with the ability to enhance student learning and is relevance to the student's future learning. As a technology that seems to have surpassed trend and newness, email for many has become an essential part of daily life and learning.

LIST OF REFERENCES

Harmony School Educational Center (2001) *NSRF Mission*. Retrieved November 15, 2002 from <http://www.nsrpharmony.org/mission.html>

National Center for Educational Statistics(2002). *NCES Fast Facts, Distance learning*. Retrieved November 30, 2002 from <http://nces.ed.gov/fastfacts/display.asp?id=80>

The Ohio Department of Education (2002) *Static Report Card*. Retrieved November 15, 2002 from <http://www.ode.state.oh.us/reportcardfiles/2002/BUILD/031435.PDF>

Stake, Robert E. (1997) Case Study Methods in Educational Research: Seeking Sweetwater. In Jaeger, Richard M. (Eds.), *Complementary Methods for Research in Education* (2nd ed., pp401 – 414) Washington D.C.: American Education Research Association

Sizer, T. R. (1984) *Horace's Compromise* (pp. 225-227) New York: Houghton Mifflin Company.

U.S. Census Bureau (2000). *Fact Finder, Profile of Selected Economic Characteristics: 2000*. Retrieved November 15, 2002 from http://factfinder.census.gov/bf/_lang=en_vt_name=DEC_2000_SF3_U_DP3_geo_id=16000US3966390.html)

U.S. Census Bureau (2000). *Fact Finder, Profile of Selected Social Characteristics: 2000*. Retrieved November 15, 2002 from http://factfinder.census.gov/bf/_lang=en_vt_name=DEC_2000_SF3_U_DP2_geo_id=16000US3966390.html)

APPENDIX A

MY REFLECTIONS ON EMAIL ASSIGNMENT

Email Response

Most students were able to email me within the first couple days of class and did not need the week I gave them to accomplish this task. Some students mistyped the address leaving off the “t” which created some problems. During this time I discovered some students did not have an email account. This took some extra time to set up a free account on the web for them (a total of 4 students of all my classes). It was interesting that these students had to be ferreted out. All students when asked said they had email accounts.

Email Question

After a lesson on the question “What is Art?” the students came up with individual definitions of Art. They were then asked to email their response to the questions, “Is computer animation art?” and “Why should they get a credit in art for the class?” The responses varied yet I compiled them and sent them collectively back to the students. Some students made comments about how alike or dislike the

other responses were even though they were not assigned to do so. Most comments however were made in class not via email.

Review Scale Email

After receiving this email from the students one problem became apparent. Some students used images in their review scale, instead of written descriptions, and the images were lost in the email process. I had to reply to these emails with further instructions so that I could accurately evaluate this assignment. This will be an easy fix for next time and did not cause too many problems. Students were fairly quick to respond with these corrections.

Email Video Question

This not-for-grade assignment was given as a confirmation of the viewing of the video Masters of Animation volume, Japan. The responses were very thoughtful and were compiled and sent back to all students. It enabled them to share their ideas as well as thoughtfully process the information obtained watching the video. I did this exercise in lieu of a video work sheet. More students replied thoughtfully to this than they had previously on the worksheet even as the question was the same.

Email Critique/Evaluation of an Animated Character

Time was a troublesome problem with this assignment. Students had to email each other with enough time for a response from another student in order to meet the deadline. We finally came to an agreement after extending the due date that the students would email each other 3 days before the assignment was due. Hopefully this will improve the results for next time.

Email Story Chain

Students' ability to use email adversely affected this assignment. One student forwarded only his assignment and totally disrupted the chain. It was very difficult to work out and track but it did get done. An interesting thing happened with 5th period. I got an email from a student with a copy of the story. The student said she was uncomfortable adding a sentence to a story that she thought was inappropriate for school. After reading the story I agreed and sent out a new story with a note about appropriateness to the class. The resulting story was much better.

Email Video Question

After watching Masters of Animation volume, Great Britain, the students were given a question relate to the common theme found in these animations. The

question, "What would be an important relationship to portray in an animation?" was followed by a request for a story line. The resulting responses were very personal and thoughtful. I decide to take each response and put them together, removing students' names and send them to each student in my classes. It was interesting that this caused students who had not responded on time to send me their response.

Email Critique/Evaluation of a TV or Movie Animation

Students this time emailed each other 3 days before the assignment was due and this seemed to work much better. Students seem to be appreciating the midnight deadline and are producing a lot of work with little hassle and complaints. The questions seem to be focusing their thoughts.

Email Critique/Evaluation of an Animated Website

The process on this went well but there seemed to be a lot of confusion between an animated website and websites with no animation but about animation. This seems confusing to write! I will focus on this next year to clarify this predicament. Overall the quality of work is very good and volume of this work is surprising. I have a feeling they don't know how much work they are producing via email.

APPENDIX B

MY OBSERVATIONS DURING GRADING PERIODS

Observations of 1st Grading Periods (Six Weeks)

Students came at various starting points in their ability to use email. This ranged from not being able to forward email or copy and cut text to understanding all working aspects of email. One issue I keep running into is the students' informality in their use of language in their email. Even after having the students write in a word processor and copy and paste into the email so that grammar and spelling are correct some students continue to use "Internet Slang" in their email (u = you). Students seem surprised that this is reflected in their grade but hopefully it will improve the quality of the language in future emails. Getting the students in the habit of checking their email every day was an issue at first but they seem to get use to it.

The big issue related to this was created from the assignment Story Chain when some of the students got carried away with their additions to the story. They made very inappropriate additions to the story so when it got to one of the few girls I have in class (another phenomenon) emailed me in abhorrence of what the story

had turned into by the time it had been sent to her. I agreed and sent a new story chain start with more specific guidelines.

Observations of 2nd Grading Period (Six Weeks)

Students have rapidly adapted to the use of email in this course. The language or “Internet Slang” issue seems to be resolved. Many due dates have been set at Midnight so the students feel they have every opportunity to have time to email their assignments. I have had some very positive comments in regard to increased flexibility within the hectic schedule of some students’ lives after school. I have begun to copy a collective response from some assignments and send this back out among each class. This practice seems to motivate those who have missed the deadline to complete the assignment and email it to me.

A unique occurrence during the six weeks is that I have received several emails on the weekend or late at night with questions concerning email and in class assignments. The student’s expectations that I am available as a resource 24 hours a day caught me off guard. They wanted an answer or help and expected this to occur rapidly. It seems to me to parallel the idea that teachers live at the school and don’t have a life outside of the school day. One particular student had a question that he emailed me at 10pm about an assignment I had told the students to email by 12 mid night.

Observations of 3rd Grading Period (Six Weeks)

I have arranged with the students to check my email on Saturday evening and before I leave school. This will be a set time for their questions to be answered. At this point all students have mastered the ability to copy from a word processing program to the email text field before they send each assignment. Some students are now emailing assignments back and forth between home and school or uploading their file to their websites instead of using a disk to transport files.

Students have made comments in class about being upset that other students were not checking their email regularly. It seems similar to their expectation of me in responding to email. One student was quite irate stating in frustration, “Doesn’t anyone check their email?!” Unfortunately, this student forgot to check his email that night and was called to the carpet by some of his class mates, funny. Overall, there does seem to be intensity among the expectations to get responses to each other.

Observations of 4th Grading Period (Six Weeks)

Most of the major email assignments are over. It is interesting that some students would rather ask me questions via email than in class. There also has been conversation in class about students emailing each other regarding class

assignments not related to email. I will include a question about this in my survey I give to my students at the end of the year. I have begun to communicate with some parents using email and it will be interesting how this develops.

Observations of 5th Grading Period (Six Weeks)

Very interesting event occurred during these six weeks. A student noticed that I keep an instant message system running so I can tell when I get email and also can communicate with the main office. When this student was ill she emailed me and set up a time to instant message so that she could talk about what she was doing at home on a group project. We communicated using this method and see was able to receive guidance about this project and relay to her group, through me, information needed for them to proceed in class without getting behind. Without this communication the group, in which she was a key player, would not have progressed on the project as effectively. It is amazing what you can be taught by your students.

Observations of 6th Grading Period (Six Weeks)

One step forward, one step back. The schools technology coordinator is in the process of restricting the access to certain programs and on his list is instant messaging. The student whom I wrote about last 6 weeks is very upset and has

written a letter to the principal in regard to her concerns. Hopefully this and my own voiced concerns will stall if not eliminate this action. Evidently the decision will not be made until next year. I believe the students can succeed without this program but I also see the potential benefit of its use in my class.

During this 6 weeks I have continued communicating with many parents using email. All of these communications were initiated by the parent by getting my email from their child. Concerns about grades and attendance were discussed. Many of the parents were very positive about this form of communications. It let one parent receive weekly report about her son's attendance and progress on work that he needed to make up. I thought it was very interesting that some of the student behavior and work ethic positively increased when they knew I could instantly contact his or her parent using email. It was a reaction better than having the student's phone number. Maybe it has something to do with the inability to intercept or erase messages. ("I have a direct link to your parent" reminiscent of a small village where everyone knows everyone and if you do something in front of your neighbor, you might as well do it in front of your mother.)

APPENDIX C

CORRELATED SURVEY RESPONSES

Note: This is partial data collected from a student survey (Appendix D). Furthermore, I have color coded the commonalities in the last three questions using the indicated color key.

How often did your classmates communicate with you using email?

1. 1
- 2.
3. when necessary
- 4.
5. 1 or 2
- 6.
7. 3 or 4
8. only when required
9. a few times
10. 10+
11. none
12. only for critiques
- 13.
14. just for assignments
- 15.
16. not often
- 17.
18. every day
19. 7 or 8
- 20.
21. often
22. 2 or 3
23. none
24. once per assignment
25. 3-5
26. 4
27. 4
28. 3
29. all the time
- 30.
- 31.
32. rarely
- 33.

34. 3
 35. somewhat
 36. 3
 37. 7
 38. very often
 39.
 40. every few weeks
 41. when required
 42.
 43.
 44. 3
 45.
 46. hardly ever
 47.
 48. only when we sent chain letters

Did you feel comfortable communicating with your teacher using email? Explain	Yes	No
	46	2

Association Color Key

Easy/comfort to communicate

Dislike/problem

Homework benefit

Student to teacher communication/organization

HELLO

Increased quality of work

1. I have had problems with my computer recently and did not have any access to it, it dropped me behind.
2. With email the only connection I had with some students was during assignment. Communicating with Mr. Timmons via email was also a plus.
3. If there was ever a point where I became confused about a project I could contact you.
4. They used it a lot to communicate with me yea I did feel comfortable using email to communicate with my teacher, and we could ask him questions about an assignment or of something else and he would reply.
5. I always got replies really fast.
6. They did not communicate with me unless they were sending me a critique which isn't really communicating as much as it is presenting. I feel that I can talk to Mr. Timmons because he's not a weirdo like my other art teacher.
7. It is a lot easier logging into a site and typing an email than it is arranging a time to speak or waiting until class. It is also a lot faster and there is also no intimidation if you are asking for an extension or something...
8. It is easy for me and more convenient than using the phone.
9. Felt somewhat comfortable.
10. Talking to a teacher via email has advantages. If you're not at school you can still contact them.
11. I like turning in my homework through email because it's easier and less pressure.
12. I am perfectly comfortable with communicating with email.
13. My classmates only emailed me when the assignments were due. I did not like the idea of receiving homework through the internet because I rarely use my computer at home and that is very frustrating because it is slow.
14. I think it is easier than writing out the paragraphs and I can do it faster that way.
15. The only time I communicated with my classmates was when they needed to contact me with their animation critiques and website critiques. I feel that the class would have been easier if we turned the projects into you and not via email. I hated this method because I had a email address that I told you I needed to use but you did not change it.
16. I felt that it was very vital to communicate with my teacher because it kept me up-to-date.
17. Yea.
18. because I check my email everyday he knows ho to get a hold of us A.S.A.P I also feel

- comfortable because I know what he wants from me and when. It also allows me to know what is going on in the weeks to come.
19. I liked the email for the out of class work. Mostly it went along with the computer animation spirit. Keeping everything on the computer kept me in-line.
 20. My classmates did not communicate with email only time is when we had to send in homework. When it comes to emailing my teacher I feel comfortable because he gives me the answers that I need and it is a fast way to get them.
 21. It is easier than any other way of communication.
 22. It's the most common way for teens to communicate now. We are on the internet more than the phone.
 23. This made it easier to turn in assignments. This also made it easier to ask questions and have the teacher answer them fast. I also feel closer to the teacher.
 24. I felt comfortable communicating with email. It is more convenient also when you're at home.
 25. I have been using email for quite some time now. When communicating with the teacher I was more formal in my writing. There was nothing uncomfortable about it.
 26. I felt perfectly comfortable communicating using email. I thought it was much more convenient communication and reliable. It was new to me at the beginning of this class, but was easy for me to learn and understand how to use it.
 27. It was cool sometimes and tedious other times. I lost some assignments. I think I typed the wrong subject.
 28. I was only able to communicate 3 times with my classmates because of the critiques we had to do. I felt comfortable communicating with you through email because I had to do it often. For example when there were problems with the E-Story, as well as when I was sick.
 29. I feel like if you can communicate with the teacher you can get a better grade. It is helping for the teacher to help you with a project that is due later.
 30. I used my classmates to talk about due dates on different projects. I felt fine communicating with people over email, as long as they check their email everyday. I think it's a great way to keep organized. I wish every student carried a laptop with them and we did stuff with email all the time.
 31. Email gives us the power to get direct communication whatever time it is. I think that every teacher in the school should have an email address and share it with their students.
 32. It was very easy to get questions answered very quickly. You don't feel stupid getting up in front of the class.
 33. If I needed a question answered and I was not at school, it is much easier to do it by email. Also, it gave me more time to complete homework.
 34. There was nothing to worry about. I don't know why I wouldn't feel comfortable, it's easy.
 35. It was just like talking to anyone else. It was not anything special. You just rarely email someone about assignments.
 36. I like it a lot. Doing homework on the computer. It makes it so much easier when its due on Friday at midnight.
 37. All we had to do is mail him our work. Why wouldn't I feel comfortable? Its not a problem for me to email him.
 38. Yes because it is a good way to get grades for assignments and it is fast and easy.
 39. Yes because it allows the student to contact the teacher at anytime.
 40. First, it let me get in touch with the teacher outside of school. Second, I was constantly informed of my progress/grade. So...yes, I felt comfortable and well informed.
 41. Yes I felt comfortable it was just like emailing a friend. It made the assignments easier and it personalized them in a way. I would prefer sending assignments like this all the time.
 42. It made it possible to turn in assignments without bringing them to class. You could do all your work at home. It also made receiving new information a lot easier.
 43. Communicating with email did not happen that often unless it was about grading critiques.
 44. I feel comfortable communicating with my teacher. I think it is much easier to email a teacher than talking on the phone. I think email communication is much better than telecommunication.

45. My classmates didn't communicate well with email.
46. Because I can ask him questions over the weekend when I need to.
47. It made reaching him outside of school easy.
48. The teacher is human just like anyone else.

What do you believe was the greatest benefit of using email in this class?

Explain

Association Color Key

Time

Midnight Deadline

Communicate with teacher outside of class

Communicate with student

Easier process

Increased quality of work

1. I disagree with this once again this was a computer problem.
2. Most times it gives us a little extra time to do our homework.
3. I found out that AOL gives me a Personal filing Cabinet, and all mail I read goes to it.
4. I got to see a lot of great sites and use pictures for my projects.
5. Not having to be in school to ask questions.
6. You could do the work at your own leisure, even in your underwear)
7. The greatest benefit was being able to wait until 11:30 if you have a lot of things to do. Not that I did! Also typing is easier than writing pages.
8. Great way of communication.
9. Being able to communicate.
10. The midnight deadline. I think that without email, the critiques would be harder to turn in. Keep that for your Computer Animation II.
11. You can do work at home and turn it in anytime you want.
12. It saves a lot of time in class for us to work on the projects.
13. The greatest benefit was that turning in work was quick and easy. I did not have to look for worksheets or packets just click on a button or two.
14. Having to type rather than write is much better because it is faster and easier.
15. As I stated, I don't believe this was beneficial to me at all. At the beginning of the class, I told you I needed you to use my address, but you said "Ok, send it to me". I did and you never did. This led to me waiting for my mom to sign me online and it was late at night which made my projects lousy.
16. I believe the best benefit is that it can be done quickly and be done when you have the time.
17. Being able to transfer the critiques from the website to my email.
18. The greatest benefit was that we know how things are to be done. You tell us what to do and how. Email allows us also turn in our H.W. when you need it at a sacrificial time available.
19. The benefit was that I didn't have to turn in papers. The critiques would have gotten ripped or lost in my book bag. I can type faster than handwrite and can use spell and grammar check.
20. You got your grades faster and if you needed something answered you got an answer that day most of the time. You can't forget your homework at home and you can learn to use your email more effective.
21. Easier to transmit information.
22. Not as much pressure because we are comfortable using a computer.
23. You can turn in assignments faster and I can type faster than writing and this makes it easier for me. I also like being able to ask the teach anything at anytime.
24. The greatest benefit would be that the assignments can be done over the weekend and turned in.
25. You could keep in touch with classmates and the teacher outside of the classroom.
26. I think that it allowed me to create better work. The reason I say this is I feel it let me take more time to produce my work and correct it and take my time to turn it in. It allowed me not to have to worry about forgetting assignments at home because I turned them in from home.

27. Not having to write things. I liked using email instead of paper.
28. Being able to get a hold of you when necessary and in the privacy needed to address certain things without the risk of being overheard. It was also a benefit to be able to communicate with you when I was sick so that I will not fall behind on my work.
29. I feel like the important conversation is going on over the phone. So you can talk to more than one person at once. Also technology is becoming a bigger part of life.
30. The ease of it was very important. It was also very good to keep organized. I like using email a lot.
31. Even on the weekends we could talk to our peers. We could email the teacher too. Very Beneficial.
32. Nobody is around to pressure you about what you can say, so you don't feel like an idiot asking questions in front of the class.
33. Turning in assignments whenever is convenient for me. If I couldn't do it at school, I could come home and email it any time.
34. Being able to turn in work at midnight without question. Because I could work on things the day they were due.
35. The greatest benefit was being able to talk to the teacher outside of class. Also to be able to talk to students out of class. This was a big help.
36. Doing homework, I could email at anytime so I didn't have to actually talk to anyone. I think all teachers should use email.
37. Gave us ability to work the internet. It's good to have access to your email at school. Email gave us the chance to work on assignments at home.
38. The greatest benefit to using email is that it allows students to communicate with each other outside of class, especially when you are working on a group project.
39. It also is easier than phone contact, and since most out-of-class assignments are done over the internet, it gives an easier way to ask questions on a specific assignment that may have needed info on the net.
40. There are numerous benefits of using email in class. I feel the most important is being informed of your current grade.
41. It was easy because I could complete the assignments at my own leisure. Being able to write them at home on my email made the out of class assignments not seem like work. I could even do them at a friend's house if I felt like it. I also liked the fact that I could write it, then send it and it would be out of my way and wouldn't have to worry about losing it.
42. It made it possible to turn in assignments without bringing them to class. You could do all your work at home. It also made receiving new information a lot easier.
43. Being able to use the internet at anytime basically and checking your email from others.
44. You can do it while you're doing something else on the computer. Most people are on the computer a lot anyway. I think that all classes should convert to email assignments.
45. Don't have to write. Typing is easier.
46. Being able to talk to the teacher and students out of class.
47. Communicating more with the teacher.
48. Depending on what time you checked it.

What was the biggest problem using email in this class?
Explain

Association Color Key

Technology problems
 Losing data
 Student to student problems
 No problem
 Getting email to work properly

1. The fact that my computer is on the fritz.
2. I found that typing the wrong email address posed to be the largest problem.
3. All too often people didn't receive what was sent.

4. You could only use before class, or you had to ask the teacher.
5. [BLANK]
6. I rarely check my email, so I'm kind of uninformed about things.
7. If your email is down you can not sent it. Then you are stuck until the next time you can talk to the teacher. There aren't really any other problems.
8. People do not check their email everyday so if a group member was absent or has a question/idea they do not always get it in time.
9. Some people didn't check email.
10. Some people never check their email. This can make things difficult, especially if you're sending them a critique. Students should be encouraged to check their email everyday.
11. Some people might not receive it.
12. Sometimes people would either write the addresses wrong and I have seen cases when emails that were sent were never received.
13. Not all assignments were known about and rarely turned in on time. It was hard for me to keep track of assignments because they kept coming and coming and I would get backed up with my work.
14. That it might have gotten lost or the teacher or classmate didn't get it.
15. The biggest problem was that half of the time there would be a problem with sending it. Another would be that I did not know a thing about who to send things to. When even I did you said I did it wrong. I did not understand why and think you could have done a better job to specify who to send it to.
16. The biggest problem was forgetting the email list.
17. Having all these advertisements keep sending their products to my email.
18. Waiting for the other students to respond to H.W. or to have them give your homework to you. I also didn't like how some students didn't work.
19. Some people in the class I guess do not know how to use a simple email program. The emails may have gotten lost or deleted. Other than some persons mistakes I loved the email for class use.
20. The biggest problem using email was sometimes it would not send through. Or maybe you got confused at home and you can't find the answer to your question, or ask a question.
21. The format changes when you email things.
22. Email could be over looked (Hint Hint) or accidentally deleted.
23. People would send their work to the wrong person and mess everything up. People also didn't do their work messing everything up. People also kept the story chains messing the rotation and story up.
24. Some people aren't always easy to communicate because there is not always access to a computer.
25. It is easier to tell someone about something then write it down using the keyboard and sending it over the net...
26. I do not feel that there was any problem with using email. I think that using email is a great advantage in class. I use email to turn in assignments in two classes and I think that I create some of my best work in them. Email is a great idea and I feel there is no problem using it.
27. Sometimes email addresses got confused. I had two this year. I also ran into dead addresses.
28. Unfortunately, the biggest problem using email was the risk of not getting a good grade on a particular assignment because a classmate failed to turn in a homework assignment on time (critique). Also if they forgot to include something in their critique, I would email to remind them and then they would not have what I needed or would respond alter than it should have been.
29. This is when you do not get a mail address right. You do not know who you sent it to.
30. Not having an up-to-date email list available 24/7. Also when people don't check their email. But overall I liked using email.
31. There were none!
32. The biggest problem was that some people never sent anything, i.e. the storyboard. That really hurt grades.
33. Not having the email or not getting it on time. Having to rely on a student to evaluate your work and send it to the teacher did not make me feel comfortable at times.

34. I don't check it on a regular basis. So I was left in the dark about things. Also email accounts that don't work.
35. The biggest problem was people not responding to emails. A lot of people don't get the emails. This messes up assignments.
36. Sometimes email didn't get through. I would either type in a wrong address or it just wouldn't make it. It was a pain in the ass.
37. Some people may not have access to an email account or the internet. Some people forget to send email. Some people may not know how to use it.
38. The biggest problem with email would be when messages and critiques get lost on their way to the teacher.
39. That sometimes assignments may be thought to be incomplete or late, due to the fact that when using email it is easy to type in an incorrect address, and the fact that some students do not check their email.
40. People seem to be careless. Thus, my assignments happen to get lost. That is not good for me.
41. There were times when people would either wait until the last minute to send it or not at all. Not sending it at all did give me an easy way to get an 'A'. When people would send them at the last minute, I would rush to get the secondary evaluation done while I had other homework to do as well.
42. The biggest problem in using emails is when you don't always get the emails. Sometimes people don't send them right and also people don't always check their email.
43. People getting on the sites should not be looked at in school.
44. There are two main problems. One is when the server is down. Another is when your computer crashes, in which you're screwed.
45. On my PC, emails didn't always work.
46. Computers have problems and sometimes mail doesn't go through.
47. Nothing really.
48. [BLANK]

APPENDIX D

CLASS SURVEY

COMPUTER ANIMATION STUDENT SURVEY

Name _____

The following survey will be used to modify the course to better meet your needs as students as well as identify practices that are successful in this course. There is no right or wrong answers. Points will be given for the detail and specificity in which you answer this survey. Anytime you are asked to explain your answer please do so in a thorough and succinct manner (3 sentences). Please answer the questions as honestly as possible.

Teacher Expectations

Check the appropriate box. 1 point each _____

1. The teacher held high expectations for the quality of work I did in class.

Strongly Disagree Disagree Agree

2. The teacher assigned grades in relation to the quality of my work.

Strongly Disagree Disagree Agree

3. The teacher gave opportunities for me to improve the quality of my work.

Strongly Disagree Disagree Agree

4. The teacher gave feedback that enabled me to improve my work.

Strongly Disagree Disagree Agree

Teacher Expectations (continued)

5. The teacher was available to help me when I needed assistance with my work.

Strongly Disagree Disagree Agree

Student Expectations

Check the appropriate box. 1 point each

1. I worked to my full potential in this course

Strongly Disagree Disagree Agree

2. This course was challenging

Strongly Disagree Disagree Agree

3. This course made me think of a lot of different ways to solve the problems I encountered in the assigned projects.

Strongly Disagree Disagree Agree

4. I felt encouraged by the teacher to create better work

Strongly Disagree Disagree Agree

5. I would take this course again if given the opportunity.

Strongly Disagree Disagree Agree

In-class Assignments

Check the appropriate box. 1 point each

1. The assignments given in class were challenging

Strongly Disagree Disagree Agree

2. The assignments in class gave me the freedom to express myself in a creative manner

Strongly Disagree Disagree Agree

In-class Assignments (continued)

3. The assignments in class were fun

Strongly Disagree Disagree Agree

4. Showcasing my work in front of my classmates created an incentive for me to do better work

Strongly Disagree Disagree Agree

5. Seeing other students' work allowed me to compare my work to the quality and ideas of others in class.

Strongly Disagree Disagree Agree

Out of Class Assignments

Check the appropriate box. 1 point each

1. The critiques enabled me to look at and evaluate professional quality animation

Strongly Disagree Disagree Agree

2. The timeline enabled me to explore historically a part of animation

Strongly Disagree Disagree Agree

3. Both the timeline and critiques gave me a better understanding of animation

Strongly Disagree Disagree Agree

4. Teacher feedback on these out of class assignments helped produce better quality work

Strongly Disagree Disagree Agree

5. The out of class work helped me with ideas, quality, or understanding of the in class assignments

Strongly Disagree Disagree Agree

Group Work

Check the appropriate box. 1 point each

1. Group work allowed each member to benefit from the strengths of the other members of the group

Strongly Disagree Disagree Agree

2. Self-selecting the members of my group was essential to the success of the group work

Strongly Disagree Disagree Agree

3. Members of the group I worked with were very helpful in achieving quality work

Strongly Disagree Disagree Agree

4. The individual evaluation forms were effective in giving individual accountability to group work

Strongly Disagree Disagree Agree

5. I was completely honest and fair when completing the individual evaluation form

Strongly Disagree Disagree Agree

Website and Email*Check or fill in the appropriate box. 1 point each* _____*Explain your answer where indicated. 1 point each*

Have you visited my website?

 yes noHow often have you visited the website this semester
per six weeks?Approximate
Total

--

Do you find the website entertaining

 yes noWas the website helpful in completing and
understanding this course. yes no

Explain:

Did you learn anything new about your teacher at this
site? yes no

Do you feel it is important to know this information?

 yes no

Explain:

How often did your classmates communicate with you
using email?Approximate
Total

--

Did you feel comfortable communicating with the teacher
using email? yes no

Explain:

What do you believe was the greatest benefit of using email in
this class?

Explain:

What was the biggest problem in using email in class?

Explain:

<p>List 4 major skills/knowledge that you obtained during this class this semester. 5 points each</p>	<p>Explain how you can use each of these skills/knowledge in everyday life? 10 points each</p>
<p>(These skills may include but are not limited to, creative problem solving, teamwork, patience, critical thought, and/or understanding art in regard to animation.)</p>	
<p>1.</p>	
<p>2.</p>	
<p>3.</p>	
<p>4.</p>	