

DIGITAL BIOGRAPHIES: STORYTELLING AND EMPATHY IN
GRADE 5 COMPUTER SCIENCE

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Abstract

This action research focused on exploring boys' empathy and engagement while creating digital stories in computer programs. This study aimed to answer the question: "How might producing digital biographies impact empathic concern for others?" The participants were 14 Grade 5 boys working on a seven-week long storytelling project. In an era of increased online bullying and suspicion of those perceived of as culturally different, I was prompted to embark on a quest to align our technology program with our school's mission statement. The project required students to first study computer science principles, then interview randomly assigned peers and use their research to create multimedia biographies of their assigned peer using Scratch – a coding application. Subsequently, the boys answered questionnaires about their experience and suggested ways to enhance replications of the project. Data were generated from different sources, such as observations, questionnaires, and structured interviews. The research findings suggest that unifying technology and storytelling can result in an overall increase in empathic concern, a joy for learning, learning with others, and greater engagement, as well as possibly raising awareness about the impact of one's presence online within the larger community. The main finding was that when the boys interacted and were given a choice of computer science mediums to create together, their skills and empathy were enhanced.

Introduction

With any new school year, unexpected challenges are guaranteed for teachers. Yet, educators are lifelong learners and, with our call of duty, we manage to turn obstacles into opportunities. However, rapid and exponential proliferation of technology compounds these obstacles. Classroom teachers today must consider the use of computers thoughtfully with a purpose which is relevant to our twenty-first-century learners.

Three groups of factors influenced me to conduct this action research project: those involving a pedagogy of storytelling, those relating to the digital context, and those involving specific interventions which might include aspects of character. Those three factors interact in a complex manner, affecting each other and, in turn, influencing boys' pathways to learning. As an educator teaching with technology for over 10 years, I have noticed that computers have a profound impact on the way boys interact with the world. I wanted to help students discover digital storytelling with computers in order to offer new mediums of self-expression. Furthermore, I believe there is real potential in developing long-lasting empathy for multiple perspectives, especially when boys share personal narratives.

This action research project investigated the following question: ***How can producing digital biographies encourage the development of empathy in Grade Five Boys?***

In recent years, digital technologies have shown promise as a means for the storyteller to share narratives about themselves and others (Reichert & Hawley, 2010; Robin, 2008). Examples of digital technologies include music, audio, video, computer-generated graphics, and computer-generated texts. Combining one or more of these outputs with traditional writing results in multimedia. These channels provide students with divergent learning styles and the choice to self-select.

Research suggests using three components when boys are tasked with producing digital personal stories. The first component is the freedom to create original multimedia that adds to a narrative. The second is to provide the opportunity to share the work in progress within the class community in a safe environment. A third component is to establish a loosely structured class environment that is organized through self-assessed goals and collegial community (Dewey, 1986; Reichart & Hawley, 2010; Weissbourd & Anderson, 2016).

Literature Review

The 2018/2019 IBSC action research topic, *Boy and Stories: Pathways to Learning*, provided me with the opportunity to explore my concerns and observations about the efficacy of previous and future digital learning tasks. The way students interact with their surroundings, both inside and outside the classroom, has changed drastically over the past few years. Students growing up in a digital age presents educators with new questions and challenges, especially when it comes to learning in the 21st-century. In order to educate students in a technologically-advancing society, careful thought needs to be placed on the role that technology plays in the way students engage and interact with each other. The purpose of this

action research project was to determine how a group of Grade Five boys would engage and empathize with each other when creating and sharing personal stories with computer science. The power of using storytelling to effect positive outcomes, such as transfer of knowledge from short- to long-term memory, has been noted (Black & Bower, 1980). One reason is that stories can powerfully impact people's attitudes, beliefs, and behaviors (Kaufman & Libby, 2012; Oatley, 1999). For instance, stories are "self-involving" and shape readers' perspectives and emotions (Miall & Kuiken, 1998). The most impactful stories are usually detailed, honest, personal, and involve struggles. As Zak (2014) asserts, "to motivate, persuade, or be remembered, start with a story of human struggle and eventual triumph" (p. 3). Such stories are memorable because people become emotionally involved in the lives of the characters, see the world as they do, or imagine situations that may be similar to theirs. Even by personalizing stories using personal background knowledge, others can find new pathways to understanding their neighbors beyond the surface and masks humans wear every day. These cases and behaviors can be summarized as acts of empathy.

Digital storytelling with, or through, computer science offers new mediums of self-expression that stick with boys, and that has real potential in developing long-lasting empathy for multiple perspectives, especially when boys share their personal narrative digitally. Never before conceived tools for sharing are at our disposal and schools can promote a culture of care by using digital storytelling to perform the dual cultural function of embracing others' differences while distinguishing our own identity (Crace, 2007).

One promising practice for the development of empathy is when students are given the task of creating their own digital stories (Robin, 2008). Perhaps the most popular type of digital story is one in which the author tells of personal experiences. These stories can revolve around significant events in life and can be emotionally charged and personally meaningful to both the author and the viewer. Although many personal narratives may include historical information as a backdrop to a digital story, digital stories may also be created using combinations of these methods, such as autobiographical stories that use historical material as the true backdrop of a personal narrative (Robin, 2008).

Developing the capacity to care is often a key to happiness. How can we balance the academic rigors of school with our desire to foster good people and citizens? Weissbourd and Anderson (2016) claim that every school can take a number of steps to show students that caring and empathy matter and to make these values live and breathe in students' day-to-day lives. Schools can promote a culture of care by giving students more opportunities to connect with

and learn about others in the school, especially those who may seem foreign to them. These strategies might include a “mix it up” day in the cafeteria in which students are assigned seats that encourage them to get to know new people. Students can interview and create biographies of other students who are strangers or not as well known to them (Weissbourd & Anderson, 2016). In addition, the prospect that boys’ created work can find an audience beyond the classroom, and thus “really matter,” was reported by teachers to deepen student engagement (Reichert & Hawley, 2010). Furthermore, among the several features of open inquiry that the boys in Reichert and Hawley’s study appreciated was the opportunity to link the scholastic and personal dimensions of their lives.

At least in principle, one could argue that digital production is part of a more general “empowerment” of media users. By offering greater democratic access to complex forms of media production, digital technology can enable students to become writers as well as readers of visual and audio-visual media. Yet even where young people do have access to digital production technology in their homes, research suggests that relatively few of them are using it in this way. The key point is that the potential benefits of digital technology will not be realized without informed intervention on the part of teachers and of peers (Brennan, 2012; Buckingham, 2007).

Research Context

The Browning School is an independent college preparatory school situated in the heart of Manhattan, New York City. It ranges from Kindergarten to Form VI. Most boys come from middle to high socio-economic households. The school has a strong reputation for academic excellence and it is Browning's mission to "foster growth of courageous and compassionate men of intellect and integrity who aspire to contribute meaningfully to our world" where the values of honesty, dignity, curiosity, and purpose are upheld.

This research was conducted in the first semester with my 5th Grade Computer Science Class. I chose this class comprising fourteen 10 and 11-year-old boys because I felt that exploring the topic of coding biographies would be both relevant to boys that have grown up in the digital world and meaningful to their stage of adolescence. Furthermore, middle school classes meet twice as much per week as lower school classes which doubled our contact time. Relationships and norms had been established with the class since I have taught them since Kindergarten.

After receiving permission from the school administration to conduct the study, I obtained written permission from the boys’ parents via our blanket policy that is included in our school contract. Additionally, I assured the parents of the anonymity of the boys’ responses by

assigning random letters to each boy. At the start of the term, I informed the boys of their guaranteed right to privacy. Online privacy for Scratch was secured through Google's CSFirst learning management system, which randomly generated encrypted, nameless 7-digit numeric user names with secure passwords. Each family signed a Responsible Use Policy contract required for all students to engage with campus technology.

The Action

My planned intervention to address how creating digital biographies with computer programs affected empathy in Grade Five boys included the following:

The fourteen boys in my Computer Science and Engineering class were randomly assigned partners, each of whom would be the subject for the other's digital biography project constructed with MIT's Scratch programming language. In order to investigate the impact this intervention had on boys' attitudes toward understanding multiple perspectives unlike their own, I added a three-part sequence in the project's design.

The first tier involved teaching Scratch programming skills to the boys through direct instruction, guided, and individual practice. The second tier involved the boys interviewing their peers for personal background knowledge. The third tier required students to utilize skills and strategies to build digital biographies, which were then shared with the class and with a public, online community.

Data Collection

The data collection tools I used included:

- A Pre- and Post-action Likert Scale. I made use of Davis' (1980) Interpersonal Reactivity Index using its Empathic Concern Subscale to measure empathy.
- Semi-structured interviews via audio tapes from my iPhone and video recordings from a stationary GoPro setup in a corner of the classroom.
- Analysis of the boys' comments from the tapes and questionnaires of self-reflection allowed for analysis of their comments. These revealed patterns of response. The work products were the students' questionnaires and self-reflections on both process and achievement of goals.
- Structured post-project interviews were transparent and conducted during our regular class meeting schedule. Individually, I met with each boy in the hall outside the classroom. I used a mobile tripod stand to record video and audio on my iPhone to capture the response to each question asked in the interview.

The data collection was divided into five phases:

1. Pre-intervention data collection
2. After each of the three interpersonal curricular phases of the unit
3. Post-intervention data collection.

An emphasis on qualitative data was appropriate for analyzing the development of boys' empathic mindset related to digital storytelling using personal information. In fact, rating scales, such as a Likert Scale, can be used very effectively to measure students' attitudes, perceptions, or behaviors (Mertler, 2017). It was challenging to find a scientific measurement of empathy, but Davis (1980) substantiated one method with his Interpersonal Reactivity Index rating scale. The inquiry surveys the thoughts and feelings in a variety of situations. However, pretesting can cause a threat to internal validity. For example, McMillan (1996) suggests simply reading the questions might stimulate the subjects to think about the topic and even change their attitudes. To limit threats to internal and external validity, the pretest and post-test were administered in the same classroom during the regularly scheduled Monday morning class period and using the same Google Form. Additional qualitative pre- and post-unit data were collected via semi-structured observations and structured post-production interviews.

Data Analysis

The data collected from the informal interviews, observations, semi-structured interviews, questionnaires, and work products were organized into category themes for polyangulation (Mertler, 2017,). Three themes emerged from the coding and categorization of the qualitative data: Digital storytelling can be used to anchor the boys' focus on "the other" rather than the self; learning about others can be joyful; and creating a story with code is engaging and fun.

The data collected from the students' empathy survey showed an average improvement in self-reporting care for others (Appendix A). Although the change was not significant to reach mountain tops, the findings suggest the boys responded positively when rating their "other-oriented" feelings of sympathy and concern for others (Davis, 1983). In order to measure empathy, I first defined the term within the research context. Davis (1983) describes empathy as the "reaction of one individual to the observed experiences of another" (p. 113).

All of the boys in my class were given the Interpersonal Reactivity Index on the first day of the project and again on the last day of the project. The Interpersonal Reactivity Index consists of 28 items answered on a 5-point Likert scale ranging from "Does not describe me well" to "Describes me very well." The measure has four subscales, each made up of seven different

items. Data measured under the Empathic Concern (EC) subscale were recorded for the purpose of this study. The EC subscale displayed a distinctive, predictable pattern of relationships assessing “other-oriented” feelings of sympathy and concern for others. In addition, more was revealed when the boys were able to verbalize their experience and feelings following the intervention. The data I collected from boys’ interviews and my informal observations were helpful in understanding how making a digital story effected their learning and feelings towards one another (Appendix B and C).

Additional data were collected less formally and built into our routine. I analyzed the boys’ activity and progress in building their work products through our shared Scratch Studio (Appendix E). I also noted comments that the boys’ posted on each other’s project page and tallied likes. Everyone started building the same way by sharing and joining our online studio. The website served as a digital repository where I could keep a record of any similarities or patterns which matched those from the Interpersonal Reactivity Index, interviews and informal observations. Furthermore, I studied written responses to questionnaires, administered and submitted via Google Docs, by recording the frequency of shared words and sentiments identified elsewhere in data collected (Appendix F and G). Students self-assessed their personal attitudes and feelings towards content-specific vocabulary using a 3-point scale, marking if they were beginning, developing, or secure for the sub-indicator at that time. This data neither denied or supported observed patterns, which made me question whether the instrument was appropriate for this age and grade level of students (Mertler, 2017). On the contrary, written responses revealed much more than I anticipated when prompted at the mid-point of the unit to briefly describe a number-one take-away. Boy K wrote that he, “struggled in taking the concept of the topic and putting it into my own code. I accomplished putting intriguing dialogue into my code. I feel if I could do this again, I would be more meticulous with the video tutorials, and that would have helped me with transferring information from the video to my code.”

Discussion of Results

Three themes emerged from the coding and categorization of the qualitative data:

The Boys Favored Learning About and With Others

Observations and commentaries indicated that the boys were better able to collaborate and fix problems after engaging in the project action and process. Specifically, Boy J said, “It shows how much you can learn by doing, asking questions and sharing techniques and learning from each other.” While the survey on liking programming appeared to be the same, the video

interviews revealed 9 of the 14 boys verbalized enjoyment in the process of coding; most possibly because it involved the personal narrative along with the skills used to code a multimedia story. Boy F said, “It kind of made me feel like people can be like from all over and but still like look and have the same interests as someone from the other side of the world.” This sentiment was echoed by Boy J, as “it was good to instead of doing it on yourself, since you know so much about yourself, it’s better to do it on a friend because you learn more about them as well as they might help you get over coding problems like finding a background or making different sprites that I probably wouldn’t use for myself.” In fact, all of the boys indicated the value of the project for developing personal relationships and growing empathy for others. Comments shared in reflections, such as Boy F’s, which “made me care more about the person I was interviewing ... made me more respectful of other peoples’ feelings,” were shared by others.

The Boys Preferred Building Stories Digitally

Regarding the survey on Computer Science classes, the biggest shift after doing this interactive project went from four of the 14 boys interested in building a project to six of the 14 expressing interest. Boy J said, “I liked learning and seeing my friend. Shows how much you can learn by doing and asking questions and sharing techniques and learning from each other.” While the survey on liking programming appeared to be neutral the video interviews revealed eight of the 14 boys verbalized enjoyment in the coding process, possibly because it involved personal narrative along with the skills used to code a multimedia story. Boy J said, “I liked making the digital story on my friends rather than on myself,” while Boy F said, “I liked the digital story best. It made me care more about the person I was interviewing.” Finally, Boy H said, “A favorite thing of mine was being able to code a story that was interactive. Especially cool learning more about other people in that process.” Six of the 14 boys indicated they would choose a more challenging class. This also suggests that the action developed engagement and intentionality in boys’ Computer Science learning.

The Boys Were Engaged and had fun Programming Narratives

In regard to the boys’ attitudes toward Computer Science and their self-confidence in coding, the survey revealed 9 of the 14 boys shifted to a different response following engagement with the action. They saw themselves in a much more positive light with the grasp of coding skills. Following the project, Boy N admitted, “all the parts were hard but, in the end, it was worth it.”

Observations and commentaries indicated that the boys were better able to collaborate and fix problems after engaging in the project action and process. Regarding the survey on Computer Science classes, the biggest shift after conducting this interactive project went from 4 of the 14 boys interested in building a project to 6 of the 14 boys expressing interest. Similarly, an interesting shift from 7 of the 14 boys to 8 of the 14 boys was recorded in how a computer science class could help them learn when the boys worked on a project of interest. In fact, 6 of the 14 boys indicated they would choose a more challenging class. This suggests the action developed engagement and intentionality in the boys' learning. Boy D said, "If I were to start all over again, I would start doing more complicated projects with a bit more coding." In reflecting on this project Boy G said, "one top thing I will take away so far is learning how to create a storyline for my set of code to make it better and learning new blocks that I had never heard of before." Boy A bluntly acknowledged he, "would like to put more effort into my work when I make Scratch projects with more challenging code."

Conclusions

How the boys used digital storytelling to discover shared interests, build new relationships, and develop empathy for other people stood out for me. Incorporating storytelling and personal background knowledge during Computer Science class for the boys was justified as benefits included an overall increase in empathic concern, joy for learning with others, and engagement in the making process with digital technology. In fact, the class overall expressed a positive attitude toward engagement in the task of constructing multimedia artifacts to learn computer programming; especially when the content shared consisted of personal stories and background knowledge of a peer.

Often times, we build bridges through the accidental discovery of similarity. However, this study revealed, more often than not, that the boys reacted positively, emotionally, and empathically when discovering differences amongst one another. Relationships and relational learning were clear and present indicators of the boys' learning and understanding. The boys developed empathy for people different from themselves and discovered that they shared more in common than they expected with others. I was encouraged to hear, in our selfie-culture of today, the boys extrude the likeness of Walt Whitman in that *they are bigger and better than they thought themselves capable*. Boy G said he liked this project because it "made me more appreciative about other people," while Boy L concurred, "*There's much more than meets the eye.*"

Reflection Statement

Plato wrote, “You can learn more about a person in an hour of play than in a year of conversation.” This action research project reassured my intentions and identity as a teacher. I aim to inspire and lift up every student. I create fun learning environments which help students center ethics and empathy with their technology experiences. Experimenting, taking risks, and testing the boundaries are necessary to meaningfully reach each boy. Participation in this action research also reaffirmed my philosophy as a reflective practitioner. I think deeply and care passionately about my practice. I have always been curious to investigate the “why” of my purpose behind the “what” of my practice.

I came to appreciate the value of action research as a means to apply new methodologies and effect positive change within my classroom and in the engagement of each boy I teach. My best work has always stemmed from collaborative efforts. Although, while working late hours into the weeknights and weekends, I was comforted to see every boy in this class develop positive attitudes toward themselves, their peers, and our world.

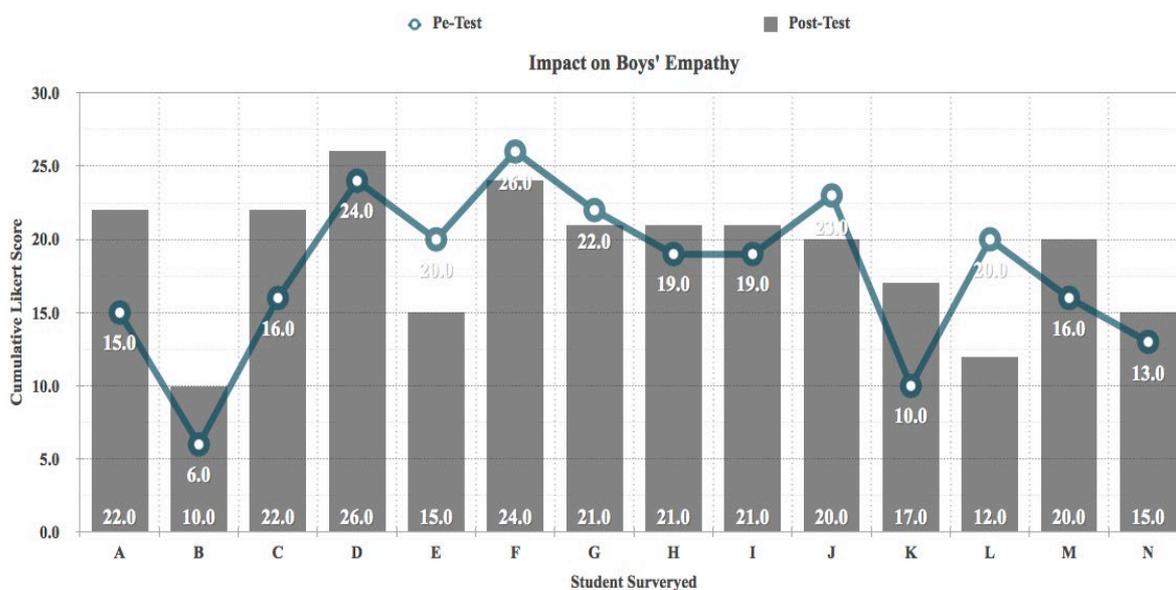
The completion of this action research project was more challenging than I ever had anticipated. Truthfully, there were many times when I questioned my passion and purpose for teaching. In hindsight, I am overall grateful for this opportunity constructed by the IBSC and the encouraging support from Bruce Collins, Richard Symons, and Janet Lien. This journey would also have not been possible without the generous endorsement of the administration of The Browning School. John Botti, Aaron Grill, and the Parent Association enthusiastically offered resources and support required for me to intentionally give this project the attention and effort warranted. This project would not have been successful without Dr. Melodie Ting’s generosity sharing a teaching space, lending her experience with academic research, and her patience for my many roadblocks. However, I have dedicated this work in its entirety to the mentee who volunteered her Saturdays and Sundays over this past year to support, guide, critique, and engage with this action research process. Dr. Patricia Flynn’s generosity, brilliance, and friendship are the kind to inspire this teacher to carry the torch. IBSC action research project on Boy and Stories: Pathways to Learning has helped me grow to be a more relational, growth-minded teacher within my lab and throughout the community. I am grateful for new relationships and international colleagues which I hope will continue the conversation.

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Appendix A: Interpersonal Reactivity Index; Pre-and Post- Score

| Student | Pe-Test | Post-Test | Difference |
|---------|---------|-----------|------------|
| A | 15.0 | 22.0 | 7.0 |
| B | 6.0 | 10.0 | 4.0 |
| C | 16.0 | 22.0 | 6.0 |
| D | 24.0 | 26.0 | 2.0 |
| E | 20.0 | 15.0 | -5.0 |
| F | 26.0 | 24.0 | -2.0 |
| G | 22.0 | 21.0 | -1.0 |
| H | 19.0 | 21.0 | 2.0 |
| I | 19.0 | 21.0 | 2.0 |
| J | 23.0 | 20.0 | -3.0 |
| K | 10.0 | 17.0 | 7.0 |
| L | 20.0 | 12.0 | -8.0 |
| M | 16.0 | 20.0 | 4.0 |
| N | 13.0 | 15.0 | 2.0 |



Appendix B -- Post-Interview Questions and Student Response

Question: What surprised you most about the subject of your digital biography? Why?

Boy L - There's much more than meets the eye.

Boy F - It kind of made me feel like people can be like from all over and but still like look and have the same interests as someone from the other side of the world.

Question: What part of the process made you feel uncomfortable?

Boy D - Typing in the right information. If I got one piece of information wrong it wouldn't be an actual biography.

Question: Why create with a digital story?

Boy J - It's like reading a book and watching a movie. I, well I think part of the reason is Scratch does such a great job as well because you can create backgrounds and different sprites and you can program things so you can like visually see the story because it also has speech blocks so you can tell the story you would on paper as well showing a have a visual of it.

Boy F - I liked the digital story best...make it in virtual.

Question: How did you feel about this experience?

Boy J - I thought it was good to instead of doing it on yourself, since you know so much about yourself, it's better to do it on a friend because you learn more about them as well as they might help you get over coding problems like finding a background or making different sprites that I probably wouldn't use for myself.

Boy H - Pretty cool experience. Wish we had more time to do it. Wish tech were two semesters like last year. Was cool learning more about other people. Kind of cool seeing how projects are evolving over time.

Boy N - All the parts were hard but in the end, it was worth it.

Boy B - It wasn't just about me it was about someone else.

Question: How did this project make you feel toward other people different from you?

Boy F - Made me care more about the person I was interviewing...maybe more respectful of other peoples' feelings.

Boy G - Well it made me feel kind of more appreciative so I know more about some people than I did before starting this program.

Question: What did you like least about this project? How would you make it better?

Boy J - I felt like we could've had a bit more time, felt like we could've had a bit more time to work on these before friend sharing because you know what I mean because friends can be like knife in the back when it comes to judging they can either be really good about it ...like "oh you can make some edits on this part" or they can be really bad about it too.

Boy N - I would've liked more information about his likes, you know. Since I did mostly race and culture. I wish I had more time for his personal likes and stuff.

Question: What did you like most about this project?

Boy C - I liked learning about my friends and seeing and helping and doing it myself and getting over problems with my friends and things because it shows how much you can learn by doing something even about your friend than when it's all about you.

Boy G - Learning about different people.

Boy H - A favorite thing of mine was being able to code a story that was interactive and fixing the bugs.

Boy J - I liked learning and seeing my friend. Shows how much you can learn by doing and asking questions and sharing techniques and learning from each other. I also liked making the digital story on my friend rather than on myself.

Question: Could you share a little bit more about those problems with your friends you were able to get over?

Boy J - So like within [Boy D] here and asking questions and programming music I know [Boy D] was going around to people and sharing his music techniques and teaching people how to like program from like music and stuff so when you have multiple sounds going off at the same time it didn't sound good so he shared it with his friends how to fix that and with me which made my project move forward and I helped my friends with other things like how to code in your program to ask a question and stuff

Appendix C: Recurring Themes

| Theme | Instances | Respondents |
|--|-----------|-------------|
| Communicate, Sharing | | 43% |
| Collaborate | | 36% |
| More Time: to represent person and self in best light | | 50% |
| Empathy: Personal Relationships | 26.0 | 100% |
| Empathy: Appreciation for other Cultures | 15.0 | 79% |
| Voracity: Want work to be correct, accurate, and truthful | 24.0 | 43% |
| Making, Creating | 21.0 | 64% |
| Enjoyment in Project | 21.0 | 64% |
| Learning: through storytelling and developing skills to represent stories using multimedia | 21.0 | 50% |

Appendix D: Feedback Prompts

Stanford's School uses "I Like, I Wish, What If" method cards as a structured way of organizing feedback that is gathered from design testing sessions ("I Like, I Wish, What If," 2018).



"One key advantage of the "I Like, I Wish, What If" method is that it frames the feedback that someone is about to provide in a constructive and positive manner, enabling an open discussion or absorption of his or her feedback. Rather than saying something like "This feature sucks; why is this design even considered?", users are framed to say something more constructive, like "I wish you would change this part to..." and "What if you moved this...and added..." ("I Like, I Wish, What If," 2018).

Appendix E: Online Scratch Studio

A Studio is a place where users can put multiple projects into an accessible group.

The sample used this site <https://scratch.mit.edu/studios/5679111/>

The screenshot shows a Scratch Studio page for 'G5 Digital Biographies'. The page header includes the Scratch logo, navigation tabs (Create, Explore, Ideas, About), a search bar, and a user profile for 'jah2233'. The studio title 'G5 Digital Biographies' is displayed at the top right, along with an 'Unfollow' button and a follower count of '(13 Followers)'. Below the title are tabs for 'Projects (17)', 'Comments (3)', 'Curators', and 'Activity'. A button for 'Add projects' and a checkbox for 'Allow anyone to add projects' are also visible.

On the left side, there is a profile picture of a dog and a post from 'jah2233' dated 'Updated 5 Dec 2018'. The post text reads: 'How might producing digital biographies encourage the development of empathy in Grade 5 boys?'.

The main content area displays a grid of 17 project thumbnails, each with a title and the creator's name:

- Computer Science ... by jah2233
- All about my friend ... by cs1733277
- all about paul by cs1733260
- all about William by cs1733256
- the story of lucas by cs1733243
- All About VEER by cs1733251
- all about Cole by cs1733241
- About Ali by cs1733271
- how does alex live-2 by cs1733244
- all about my friend ... by cs1733255
- all about BOBBY by cs1733257
- This is Ben... by cs1733261
- All about Noah by cs1733289
- about sean by cs1733250
- And his name is Ma... by cs1733247
- all about Freddie by cs1733245
- All About My Friend ...

Appendix F: Digital Biography Mid-Semester Reflection

Boys completed this exercise on their own at the beginning of a Monday class. Students self-assessed and marked either beginning, developing, or secure based on how they felt for each sub-indicator. Then wrote a response to the open-ended questions.

PART I:

| B: Beginning D: Developing S: Secure | | | |
|---|----------|----------|----------|
| REFLECT & LOOK BACK | B | D | S |
| Is inspired by ideas, thinking, and problem-solving | | | s |
| Participates in <u>goal-oriented</u> group effort | | | s |
| Ask questions that are meaningful | | d | |
| Puts care and effort into the development of work | | | s |
| <p>1. Explain one specific example of what you accomplished during the first half of the semester.</p> <p>I have learned how to ask the person viewing your code a question and how to track what the answers the audience submitted were.</p> <p>2. What specific goal would you like to strengthen before the end of the semester?</p> <p>I would like to make a countries capitals quiz on scratch and tell the audience if they are correct or incorrect.</p> | | | |

PART II:

| |
|--|
| <i>Briefly describe the number one thing you will take away from the Scratch Storytelling project up to now. (i.e. What did you accomplish? Where did you struggle? Would you do anything differently in the future?)</i> |
| WRITE ABOUT YOUR LEGACY THUS FAR |
| <p>I struggled in taking the concept of the topic and putting it into my own code. I accomplished</p> <p>Putting intriguing dialogue into my code. I feel if I could do this again I would be more meticulous with the videos, and that would have helped me with transferring information from the video to the code.</p> |

Appendix G: Digital Biography Student Organizer

The digital biography student organizer was shared and distributed after a Tuesday class. The boys did not have open access to each other's organizers. However, I deliberately kept access and pushed back the due date several times to adjust for holidays, student absences, etc.

The content included two categories; conducting research and combining research with multimedia. Students self-assessed using a rating scale of beginning, developing, or secure based on how they felt for each sub-indicator at that time.

PART III:

| B: Beginning D: Developing S: Secure | | | |
|--|----------|----------|----------|
| CONDUCT RESEARCH | B | D | S |
| Find Someone Who... (Opposites) <i>class activity</i> | | | |
| My Skills, Talents, Interests, and Hopes <i>class reflection</i> | | | |
| My Family Suitcase <i>class reflection</i> | | | |
| My Heritage <i>homework activity</i> | | | |
| Jot down notes of things that stand out to you here: | | | |

PART IV:

| B: Beginning D: Developing S: Secure | | | |
|---|----------|----------|----------|
| COMBINE RESEARCH WITH MULTIMEDIA | B | D | S |
| Computer Graphics | | | |
| Recorded Audio | | | |
| Computer-Generated Text | | | |
| Video Clips | | | |
| Music | | | |
| Notes and/or shoutouts: | | | |