



Activating Superpowers: Examining Digital Literacy Practices in an Afterschool Program

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Introduction

The purpose of this study was to gain a deeper understanding of digital literacy practices at an afterschool program. Digital storytelling has been practiced at this site for over a decade, but this investigation provided scholars, practitioners, and parents detailed, multilayered insight regarding ways youth use digital literacy to create original content, share ideas, and make meaning.

Primary Research Questions

The following research questions serve as the anchors for this investigation:

Q1: How do youth engage in digital literacy practices while constructing hero projects?

Q2: What are youths' perceptions of superheroes at a community technology center?

Conceptual Framing

The research questions listed above are framed in the ethnographic perspective. According to ethnographers (Bhatti 2013, Green, Skukauskaitė, and Baker 2013, Spradley 1980, Hull and Katz 2006), the investigator wants to capture the emic perspective. Listed below are the key assumptions regarding literacy:

- Literacy is a social practice that is situated; what counts as literacy varies from one community to the next (Castanheira, Crawford, Dixon, and Green 2001).
- New literacies theorists have agreed that literacy includes sign-making practices with various technologies (Mills 2010).
- Youth have significant ownership of self-presentation, learning and evaluation of others when engaging with interest-driven media practices (Ito et. al. 2008).



Figure 1: Portrait of Flash. Adapted from Holmes (2018).



Methodology

This single person case study (Ashley 2013, Yin 2006) involved collecting and analyzing multiple sets of data and triangulating these data sources. Demographic information is listed below:

Demographics Information for Participant A*

Grade: 5

Age: 11

Gender: Male

School: South Coast Elementary*

Home Language: Spanish

Interesting facts:

1. Identifies as a good student
2. Wants to go to college when he graduates from high school
3. Writes digital stories at this site for over 2 years.

*Both the participant's name and school are pseudonyms as customary in education research.

After collecting multiple sets of data across multiple interview sessions (Brenner 2006), each set was analyzed with different techniques. The data sources and methods are displayed below in Table 1.

Table 1: Visual Representation of Data Sources, Amount, and Methods of Analysis

Data Source/Amount	Methods of Analysis
1 Concept Map about Flash (Participant A's superhero of choice)	Critical visually analyzed (Chung 2013), categorizing relationships among nodes
Audio/Video Records 2 hours, 46 minutes	<ul style="list-style-type: none">• Audio: Transcribed and paired with screen shots, assembled as multimodal transcript (Hull and Katz 2006)• Video Event-mapped (Green, Skukauskaite, Castanheira 2011)
Digital Artifact: 1 Superhero Story about Flash	Rhetorically analyzed (Bazerman 2006), with examination of digital features (Wysocki 2006)

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Key Findings:

Q1: Digital Literacy Practices

Within a 3-month period, Participant A constructed a concept map about Flash and generated draft of his digital story. In addition, Participant A selected digital features to enhance his narrative.

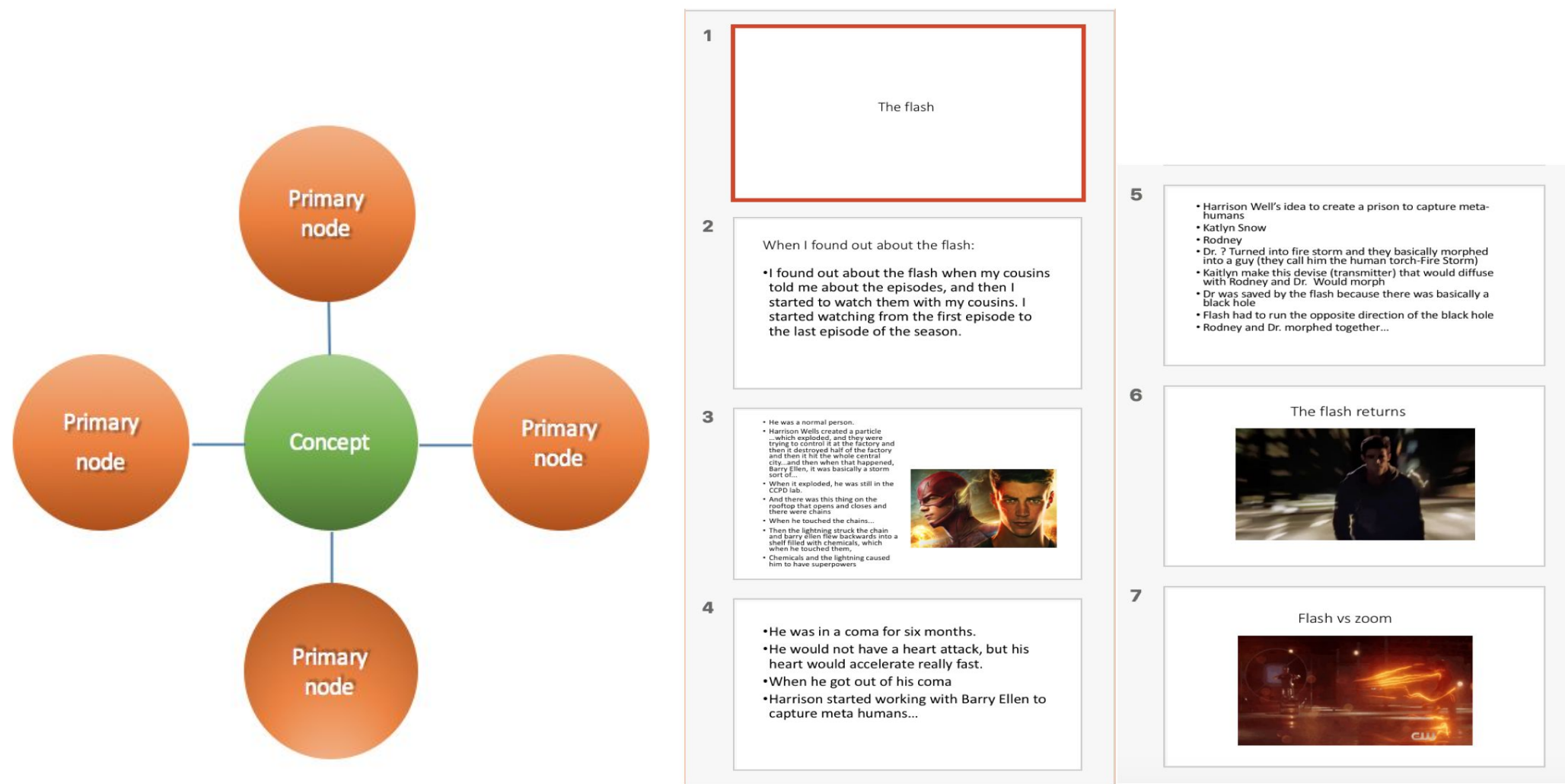


Figure 2: Model of Cognitive Map with concept/subject in the center with primary nodes as subject modifiers

Then, he also shared his story with family and friends during the digital story festival. Activities for semester are mapped in Figure 4 below.

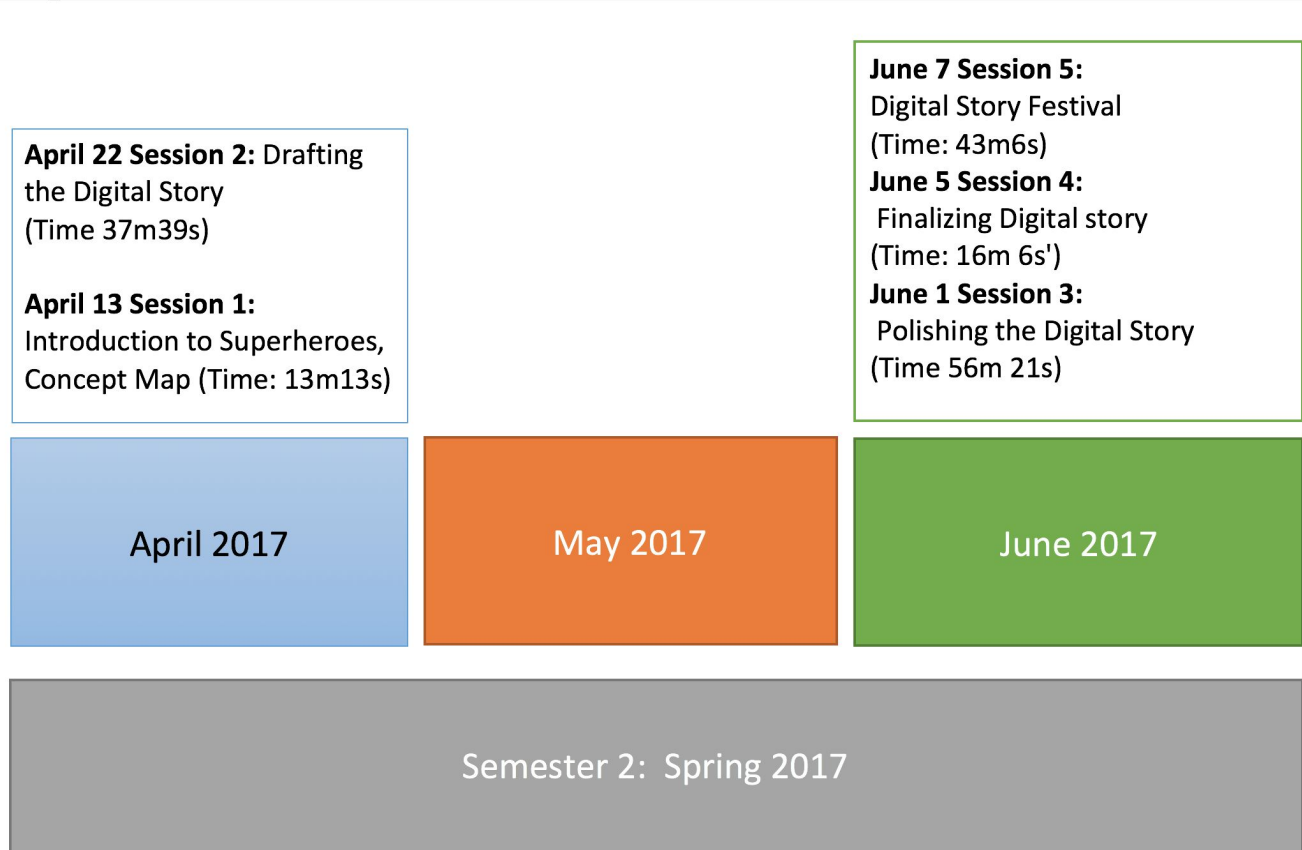


Figure 4: Event Map for 1 cycle of activity

Q2: Perceptions of Superheroes

When Participant A constructed his superhero map, he selected Flash ("Barry Allen" in the everyday). Then, he included details about Flash's superpowers, dual identity, and purpose for using his powers are to save people. His superhero is displayed as nodes in Figure 6 below.



Figure 5: Portrait of Flash

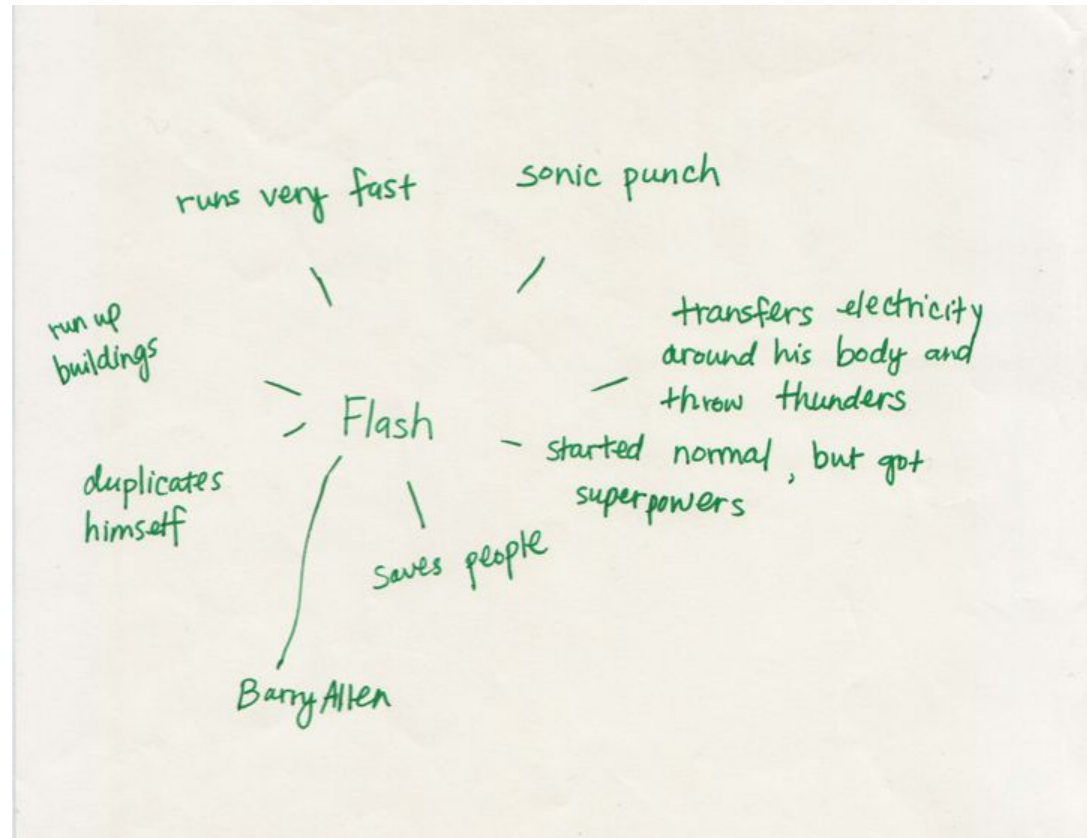


Figure 6: Participant A's Cognitive Map of Flash

Furthermore, Participant A expanded on these nodes in his digital story. Flash became a multifaceted individual who encounters challenges, discovers his superpowers in the midst of transformation, and uses his powers for the common good.

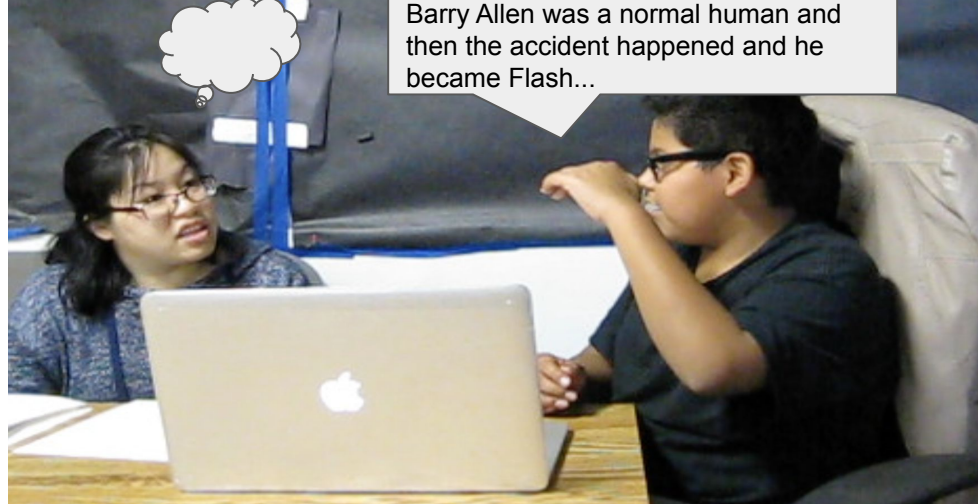


Figure 7: Visual representation of pivotal interactions while making the concept map during Session 1

Discussion

- Participant A filled the position of the creative director while the moderator (the associate researcher) facilitated the creative process. (Ito et. al 2008)
- Participant A recognized the dual identity and transformation of Flash and navigated roles and relationships in both Barry Allen's social worlds. (Rosenburg 2013)
- Participant A used animation (GIFs, video clips) to enhance his story about Barry Allen's transformation and utilizing superpowers as Flash. (Wysocki 2006)

Limitations

Environmental Constraints: Participant A constructed his superhero concept map and his digital project in a separate room (the staff lounge) due to constraints stipulated with Human Subjects and informed consent with video taping and reporting.

Time Constraints: This project captured only 1, 3-month cycle of activity. This limitation could be addressed with multiple sets of of interviews over a longer period of time.

Implications

- Opportunities for Research: A potential follow-up study would include an interview study to investigate how youth reflect on their engagement in digital storytelling in multiple contexts and how these practices transform participants' digital learning lives (Erstad, Sefton-Green 2013)
- Practice: Since many superhero narratives are generated across multiple cycles of activities, inviting experts in animation and digital storytelling (ie. Marvel Studios, Walt Disney imagineers) to the after-school program would be meaningful.

