The Stuff that Heroes Are Made Of: Elastic, Sticky, Messy Literacies in Children’s Transmedial Cultures

In this article, we feature a graphic story, comic, and animated film research study that considers how children design and produce narratives within transmedial worlds.

Zack has bright blue eyes, blonde hair, and rosy cheeks. He is the kind of child who lingers for a few minutes after the recess bell chimes to finish things off, put things away, and have a chat about his day with adults in the room. When the children’s book author, Frieda Wishinsky, came in to speak with Zack’s class about The Canadian Adventure Flyer series (Wishinsky, 2010, 2011) that they had been reading as a lead up to a graphic story and animation project, Frieda spoke with Zack (all names are pseudonyms) for a while about things that inspire him. Zack shared that his Mum was going back to high school after a multi-year hiatus when she gave birth to him and worked part-time. Frieda said, “Zack, your Mum is the stuff that heroes are made of.” Zack beamed about what she said and continued working.

There were many such moments during our six-week research study of children’s transmedial cultures in a combined-grades 3–4 classroom within an elementary school in a smaller city in Southern Ontario, Canada. In this article, we feature the “Speech Bubbles, Graphic Stories, Flipbooks, Storyboards” research study that we completed in the autumn of 2017. We begin by describing the study’s methodology and research context. Next, we discuss our findings in relation to transmedial theories, elastic literacies, and curatorial design practices. Finally, we conclude with implications for teachers interested in engaging their students in transmedial work.

Methodology and Research Context

The “Speech Bubbles, Graphic Stories, Flipbooks, Storyboards” research study is part of a larger project that involves five student-focused research studies concentrating on five modes of communication and expression: documentary filmmaking, graphic stories and animation, videogame design, photography, and coding. What is essential to each study in the larger project is technical and aesthetic training, offered by media arts and industry professionals who work closely with teachers during the research project to plan units and assignments. The research featured in this article emphasizes materials and Do-It-Yourself (DIY) practices that come from maker movement and maker space traditions (Halverson & Sheridan, 2014; Peppler & Bender, 2013), which refer to embracing creative production by providing the technologies, resources, and materials to make texts and objects through experimentation and problem solving. As a result, the research team spent most of their time observing and documenting how children design and produce multimodal texts using a myriad of materials (Buchholz, Shively, Peppler, & Wohlwend, 2014).
This research couples maker movement work with the wisdom and expertise of professionals working with educators to apprentice students in multimodal principles and practices (Rowsell, 2016). The research team included a grade 3–4 teacher (Melissa Turcotte), a literacy and children’s literature professor (Larry Swartz), an animator and media game developer (Jennifer Burkitt), and two researchers (Amélie Lemieux and Jennifer Rowsell). Larry and Jennifer B. taught students about the components of comics, graphic stories, and animated texts, while Melissa, Amélie, and Jennifer R. circulated around the classroom observing students and providing assistance and feedback as needed. In this way, the research study had an ethnographic approach (Green & Bloome, 1997) coupled with participatory action research (McTaggart, 1991).

Pedagogical Dimensions of the Project

The project began with Melissa, the classroom teacher, reading aloud books from the Canadian Adventure Flyer series. She then assigned reading groups based on different books within this series. Created by Frieda Wishinsky, the Canadian Adventure Flyer books depict two children, Emily Bing and Matt Martinez, who time travel to varied places and spaces where they have adventures before returning home. Emily and Matt travel to different historical periods such as Pioneer Life, the Suffragette Movement, the Underground Railroad, and Arctic Exploration. Groups of three students read different books in the series. To help us fulfill the goals of the project to move across multiple genres of texts—from a story narrative to a graphic story adaptation to an animated adaptation—Larry, a children’s literature and literacy professor, came in three times for three-hour visits to focus on elements of comics and graphic stories, such as speech bubbles, close ups, thought bubbles, sound effects, and medium shots. Larry started off with knock-knock jokes and then moved on to adaptations of Canadian Adventure Flyer chapters that students then transformed into short comics. They started with black-and-white versions to focus more on details and then they moved into full color (see Figs. 1 and 2).

Research questions that framed the research were:

- What happens when students move from a graphic story to an animated film? What happens during transmodal moments when a child moves from one mode into another? What is gained and what is lost when shifting from one mode to another? To analyze data, we designed a table of analysis looking across the student productions and interviews for common strands, conceptual links, and resonant themes. Data analysis was inductive and ongoing, mediated by our own experiences as qualitative literacy researchers (Heath & Street, 2008). From our initial data collection, we categorized data according to the units of analysis (Dyson & Genishi, 2005), and we mapped out transmodal themes within multimodal artifacts and juxtaposed them with interview talk and observational fieldwork.

- The research study had an ethnographic approach (Green & Bloome, 1997) coupled with participatory action research (McTaggart, 1991).
During this process, the students developed a sense of how to adapt storybook narratives into graphic stories by emphasizing facial expressions, using large font and caps, incorporating sounds, and adding in speech and thought bubbles. After Frieda came in to speak with the class about what it means to be a writer, students continued to engage with their graphic story work. To transition into moving image work, Melissa introduced the class to Pixton (Pixton Comics, 2018), an app that creates storyboards in an animated format so that users can simulate cartoon and moving-image versions of stories and include sound-image pairing, as well as add in story features such as dialogue and plot shifts. By story development, we are referring to the introduction, middle, and ending, with some character development and dialogue (see Fig. 3).

Once students adapted a Canadian Adventure Flyers story into their own storyboards using Pixton (Pixton Comics, 2018), Jennifer B., a digital production artist, came in three times for three-hour visits. Jennifer B. wanted students to develop a sense of how animated texts move slowly, steadily, with very subtle changes, so she asked the class to make flipbooks. As a class, students watched YouTubers talk about flipbooks and then started creating their own flipbooks. Once they got their minds around the way that flipbooks can move rapidly with ever so slight changes per page, Jennifer B. described the

**Figure 1.** Black-and-white version of *SOS! Titanic!* (Wishinsky, 2010) by James

**Figure 2.** Black-and-white version of *SOS! Titanic!* (Wishinsky, 2010) by Kara

**Figure 3.** Pixton storyboard by Maggie

*Language Arts*, Volume 96, Number 1, September 2018
various roles in animation work. Next, the students were arranged into groups of three to assume the following roles (with each student taking on two roles): the scriptwriter, who turns the story into an animated text; the director, who oversees everything and makes sure jobs are completed; designers, who draw out stories; Foley artists, who work on words and sound effects; copywriters, who think about how to adapt text into animations; and visual effects designers, who create drawings. The students then created a storyboard for their respective Canadian Adventure Flyer chapter in *Arctic Storm* (Wishinsky, 2011). Students frequently asked Jennifer B. about specific practices and people involved in the animation process, which fed into our research work (and students’ own meaning-making practices).

The culmination of the “Speech Bubbles, Graphic Stories, Flipbooks, Storyboards” project was the creation of animated stories (see Fig. 4) in Toontastic (Google, 2017) based on their chapters in *Arctic Storm* (Wishinsky, 2011).

At the conclusion of the research study, there was a celebration event during which the research team and the class presented all of the produced graphic texts and transmedial work. Table 1 serves as an outline of the entire project.

**Doing Transmodal and Transmedial Work with Children**

As we explored above, Jennifer B. shared her passion for animation and what it takes to produce a children’s animated show in a matter-of-fact way. Over the course of a few hours, she described her extensive experience in the animation industry as well as the different people in the process and the roles that each one plays. In addition, she described how to sequence an animated story and move it from an idea into a designed entity. Transforming one media idea into something completely different allowed students in Melissa’s class to gain deeper understandings about the art of transmedial work.

Thinking about children’s digital and media cultures, the research allowed us to observe and document how children involved in the study experienced a movement across “old school” texts and tropes like knock-knock jokes to more visually and graphically driven texts like flipbooks and storyboards. They then engaged in moving image work with mobile apps like Pixton and Toontastic. The rich back stories (Flewitt, 2011) of the focal children and the idiosyncratic ways that they blended modes—what we describe later as getting *inside the logic of modes*—proved to be one of the more insightful aspects of transmodal work in the classroom.

There is a tradition of doing cartoon and graphic work in literacy classrooms; such research spans over a decade, from Dyson’s (1997) groundbreaking research to Siegel’s (2006) finetuned analysis of transmodal meaning making. Our study was unique in that the informed work and life experience of Larry, as a graphic story writer, and of Jennifer B., as an animator, shaped the pedagogy Melissa designed. In other words, these professional-educator dyads, alongside the materials and DIY practices, made this research rich and dynamic in capturing how children get inside of modal thinking and transmedial cultures.

Soriano (2016) describes transmedial work as “telling integral elements of a story over a variety of media, with each medium making its unique contribution to the creation of a unified experience” (p. 354). What appeals to us about this definition is the movement of the same story across a carousel of media and modalities, each one with its own affordances, constraints, and materialities. In this way, the immersion options shifted as children moved through media channels and iterations of the
### Table 1. Outline of Speech Bubbles, Graphic Stories, Flipbooks, Storyboards unit

<table>
<thead>
<tr>
<th>LITERACY EVENT</th>
<th>GOALS</th>
<th>RESOURCES</th>
<th>PRACTICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHASE ONE: From Story Narrative to Graphic Stories</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create Knock-Knock joke books</td>
<td>• To demonstrate the function of speech bubbles</td>
<td>• Larry Swartz</td>
<td>• Students read and choose a knock-knock joke</td>
</tr>
<tr>
<td></td>
<td>• To transform speech text into graphic format</td>
<td>• Knock-Knock jokes (distributed independently)</td>
<td>• Mini-booklets created from 8 ½ × 11 sheets (folded to create 5 pages)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Paper and markers</td>
<td>• Knock-Knock jokes, two presented with speech bubbles and two with characters</td>
</tr>
<tr>
<td>Community read</td>
<td>• To introduce students to <em>Canadian Flyer</em> series books</td>
<td>• <em>SOS! Titanic!</em> by Frieda Wishinsky</td>
<td>• Teacher’s Read Aloud Novel</td>
</tr>
<tr>
<td></td>
<td>• To demonstrate comprehension strategies through discussion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Four-Panel Graphic Page</td>
<td>• To examine ways speech can be written as dialogue and speech bubbles</td>
<td>• Excerpted pages of novel <em>SOS! Titanic!</em> distributed to each student on 8 ½ × 11 paper with markers</td>
<td>• Paper folded twice to create four panels</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Students transformed novel text into graphic pages featuring speech bubbles</td>
</tr>
<tr>
<td>A Close-Up Look at Graphic Texts</td>
<td>• To identify features of a graphic text (e.g., narrative)</td>
<td>• Short graphic novel distributed to each student</td>
<td>• Teacher demonstrates text features</td>
</tr>
<tr>
<td></td>
<td>• To examine how visuals are presented as close-ups, medium range and landscape shots/views</td>
<td>• Worksheet graphic treasure hunt</td>
<td>• In pairs, students investigate text features of graphic texts by completing worksheet</td>
</tr>
<tr>
<td>Reading Group</td>
<td>• To complete a novel independently</td>
<td>• Five titles from <em>Canadian Flyer</em> series</td>
<td>• Students arranged in groups of four or five</td>
</tr>
<tr>
<td></td>
<td>• To collaborate with others to deepen comprehension</td>
<td></td>
<td>• Guided reading and literature circle</td>
</tr>
<tr>
<td>Author Visit</td>
<td>• Professional/author gives background information about writing process</td>
<td>• Author Frieda Wishinsky</td>
<td>• Interview with author (whole class)</td>
</tr>
<tr>
<td>Create Graphic Pages Using Templates</td>
<td>• To apply understanding of graphic text features</td>
<td>• Template of Graphic Pages (4 or 6 panels)</td>
<td>• One-to-one sharing with author and students</td>
</tr>
<tr>
<td></td>
<td>• To create a graphic page using narrative captions, thought bubbles, speech bubbles, and different visual views</td>
<td>• Excerpts from novel read as a group</td>
<td>• Students independently create graphic pages of novel excerpts</td>
</tr>
</tbody>
</table>

*Continued*
PHASE TWO: From Graphic Stories to Animated Stories

Moving into Digital Domain - *Pixton*
- To move from graphic text to pixelated image-text
- To create dialogue and avatar from graphic prose
- Jennifer Burkitt and her helpers
- Chrome Books
- *Pixton*
- Work with *Pixton* app
- Create avatars and dialogue
- Watch YouTuber on making flipbooks
- Make flipbooks and share with group
- Talk about adapting *Arctic Storm* chapter to a storyboard
- Draw out Set-up, Conflict, Challenge, Climax and Resolution

Making Flipbooks
- To understand movement of graphic texts
- To apply small changes to images for each page
- Sticky notes
- Coloured pencils and markers
- Large sheets of paper
- Markers
- Talk about adapting *Arctic Storm* chapter to a storyboard
- Draw out Set-up, Conflict, Challenge, Climax and Resolution

Storyboarding
- Talk about the idea of “shots” in animation
- Understand that animated texts have beginning, middle, and ending
- Discuss how *Canadian Flyer* book, *Arctic Storm*, can become an animated text
- Talk through storyboarding as Set-up, Conflict, Challenge, Climax and Resolution
- Highlight key aspects of animated texts: characters, settings, and story
- Large sheets of paper
- Markers
- Talk about adapting *Arctic Storm* chapter to a storyboard
- Draw out Set-up, Conflict, Challenge, Climax and Resolution

Animating Text - *Toontastic*
- Get into groups of 2 to 3 and choose roles (director, graphic designer, foley artist, etc.)
- Work on animations
- Check story development
- Revisit different roles and if content has covered everything
- *Toontastic*
- Chrome books with *Toontastic*
- Work in small groups and create animated texts and share with adults and classmates

PREMIERE AND SCREENING EVENT

same story. It is not particularly profound to note that contemporary life demands that young people tacitly weave stories together across multiple platforms that range from social media to converged texts that they create (Jenkins, 2006); however, what was new to us were the relationships, conversations, and choices that emerged during the project. The meta-knowledge that we acquired about learners coupled with their produced multimodal texts illustrated the evocative meanings (Wolfe & Flewitt, 2010) and what Ehret, Boegel, and Manuel-Nekouei (2017) call “affective digital encounters” that children engage in when they are motivated and invested in meaning-making. As Kress (1997) noted years ago, the social map could be seen as “motivated signs” in the multimodal texts that they produced. For instance, Kara and Christopher’s depiction of a scene in *Arctic Storm* (Wishinsky, 2011) is more of a representation of their friendship and way of interacting than it is about the actual storyline.

On the whole, transmedial teaching and learning rely heavily on the affordances of new modes of storytelling (Garcia, 2017b; Jenkins, 2003, 2006). The beauty of moving across modes and transforming a story world into another world is that it: 1) pushes against confined, monomodal textual

*Language Arts*, Volume 96, Number 1, September 2018
representations; 2) makes producers/students think about what counts as text; and 3) highlights views of text making as an ideological practice (Street, 1984). By this, we mean that a traditional storybook like a Canadian Adventure Flyer story counts as much as the cartoon or flipbook version, and that texts are shaped by contexts, personalities, and the practices that the author used to make meaning with them.

In addition to being multimodal, transmedia texts are open, malleable, and idea-generated. García (2017a) describes transmedia work as: “sticky,” in that it moves across genres and is tough to get hold of; as “messy,” in that transmedia work demands assembling and flexibility, and entails fragmented narratives that come together; and as “interest-driven,” in that it is often guided by the interests of producers (p. 35). This is precisely what we witnessed; some DIY and some scaffolded learning from Larry and Jennifer B. led to messy processes, which in turn led to a stickiness within genres and emotions (Ahmed, 2015) that were soaked in the interest and investment of children in the class. For example, Zack and James worked together for much of the project, and they had a number of failed attempts as they struggled with their knock-knock jokes and storyboards, but this messy process led to a solid working relationship, and in the end, they produced a polished version of their Pixton story and one of the best animated versions of a scene from *Arctic Storm* (Wishinsky, 2011) in Toontastic.

Narratives pushed the process, but the sticky, messy, and interest-driven work drove students to think and practice transmodal productions. In other words, students like Zack and James are not accustomed to linear, structured ways of producing texts; instead, they curate information on YouTube, experimenting and failing and then experimenting again. The process is not neat. It is messy, sticky, and even frustrating for them. In the end, their completion is all the sweeter for the frustration.

As another example of transmedial work, students in Melissa’s class took the Canadian Adventure Flyer book, *SOS! Titanic!* (Wishinsky, 2010) and made it into a cartoon. What this meant was understanding the Titanic storyline, which in itself is not in their horizon of expectations (Jauss & Benzing, 1970). In other words, retelling the Titanic storyline seemed not only distant, but children were also situating themselves in relation to that milestone (e.g., “My great-great-great-grandfather would have been there,” and so on). Taking a fragment of the Titanic storyline and making a bird’s eye view of it required messiness and some degree of interest, because each student not only chose the part of the story narrative that they liked, they also infused their own aesthetic preferences (see Fig. 5). In Cassandra’s storyboard, she combined Japanese anime eyes with caps to signal emotions (a trick that Larry taught her).

By using anime-type visuals (i.e., characters with large round eyes), speech bubbles, and caps and large fonts to express emotions, Cassandra transforms textual and linguistic features with visual effects. In the cartoon version, visuals do what words...
cannot do and caps do what lowercase letters cannot do. These textual effects mark a shift in Cassandra’s thinking about the content. Going back to the “horizon of expectations” (Jauss & Benzi-enger, 1970), we understand that there is indeed a recreation and remix of the Titanic’s ethos: both cartoon characters wear hair accessories that can be found in contemporary stores. They are what Cassandra knows, and so the narrative is brought to life with her lens as a young girl living in 2017.

There was a noted heightening of motivation when Jennifer B. introduced the idea of flipbooks to students. There were certain students who were transfixed by them, like Brianna. In Figure 6, we present her flipbook, which was one of five that she made.

During our interview with Melissa, she noted how much students learned from moving into the flipbook genre and how they integrated the practice of flipbook making into their out-of-school literacy practices. As she said, “Especially Zack, he’s another one who . . . he has four or five now that he has made, and . . . in terms of motivation, where they’re enjoying the school aspect so much that they want to do it outside of school, that’s really nice to see” (Interview with Melissa, November 28, 2017).

The flipbook moved fluidly into storyboarding. This modal shift consolidated an understanding about how in one genre, one makes tiny changes through pages (flipbooks), and in another genre, one tells stories through visuals and words. Finally, shifting over to yet another mode—animated, moving image work—students spread out meanings across sounds, music, visuals, words, and speech. What started to emerge was how children recognized a flexibility in modalities, and how in one text, genre typeface plays a substantial role, while in another text genre, images carry substantive power. As a result, there was a gradual layering of modes that gave students more confidence and investment in the process.

In Amélie’s fieldnotes, she documented several instances when children switched into trans-modal thinking (Lemieux, forthcoming), such as this instance when Jennifer B. worked with children on extreme close-ups and how they shift the content and substantive message of animated text:

Elizabeth describes a scene she’s working on: “Rob gets mad because he does not think that the dog can get them back to the lodge.” Jennifer B. says it could be a great idea to focus on this moment in an extreme close-up, which can be useful to communicate emotion. She asks, “When Emily and Matt crawl out of the tent, what do they see? It was dark, but for the sound artist they heard a lot and it was telling them what was happening.” Jennifer B. is giving cues to students as to when to use sound. (Fieldnotes, Nov. 30, 2017)

At the end of Amélie’s fieldnotes, she observes how Jennifer B. teaches the group about the substantive power and affordances of sound (Wargo, 2017). We all noted how students used sound as a substantive layering device as well as to set up a mood in each scene; for example, dubbing, mixing, and imitating sound effects were three specific actions that students experienced as they were making their animated presentations.

**Enacting Elastic Literacies**

Caspar is usually one of the first students to go off-task when activities go on too long. Whether he goofs around with his friends or he asks to go to
the washroom, he is quick to be distracted and to stop working. However, Caspar was one of the most engrossed students during the flipbook activity: he wrote his story, he slowly and carefully drew each picture, he made sound effects while drawing, and he acted out parts of the graphic text.

Indeed, “elastic literacies” (Wargo, 2015) was one of the best descriptions of students like Caspar that we witnessed in Melissa’s class during the graphic-animation work. Wargo (2015) describes elastic literacies as “[taking] into account the types of practices that emerge from relational social ties and interactions with human and nonhuman actors across an array of environments” (p. 51). With the posthuman turn in literacy (Kuby & Rucker, 2016; Kuby & Rowsell, 2017), there has been an increased focus on the materials and artifacts that surround us and that breathe life into our work. Nonhuman actors in this project certainly played a substantial role. Amélie documented nonhuman dimensions of the research in this excerpt from her fieldnotes:

I went around the classroom to check out the flipbooks. Ethan is eager to show me his, and he even did two, one on each side. He put a lot of work into it. A couple of girls focused on design, forms, evolution of frames. Boys focused mainly on stories of wars, planes crashing, catastrophes. Other girls wrote stories about cats, Christmas presents, constellations. I went to James and he explained to me his story. It’s about a man who is driving to a wrestling arena, and his car falls through a bridge, he survives, and he makes his way to the WWE arena. He is still thinking through what happens after that. (Fieldnotes, November 30, 2017)

Jennifer R. and Amélie observed varied materialities within flipbooks: from Caspar’s flipbook about a car accident and the slow steady trip in the ambulance, to Maggie’s flipbook about the growth of a flower. When Caspar designed his book, he wrote down stages in the story that he wanted to depict. Then, he drew one picture per sticky note that subtly changed from one sticky note to another, adding on features and shifts in the storyline so that the viewer could appreciate the gradual movement through the story. There was elasticity in Caspar’s flipbook design: moving from words to pictures to angles to small details and features. This emergence and fluidity about the movements resembles the kind of meaning making that Leander and Boldt (2013) described when the focal child in their study fluidly moved across media and spaces at home over the course of an afternoon. Watching these children engrossed as they were in graphic work, but then also intensely relational and responsive in conversations and inside jokes, we noticed an intermingled messiness in the representations coupled with a stickiness in the affective, non-representational nature of their work (Ahmed, 2015).

When Melissa took stock of her students’ work, her description was similar to Wargo’s (2015) framing of elastic literacies, noting:

And I found the activities to be very . . . fluid, because it includes all of the areas of literacy. So, my kids had to do a lot of reading. My kids did a lot of writing. And there was tons of media. If we get the kids to present it, it’s going to be oral for them as well. So, it kind of covers all four strands.

As a seasoned teacher, Melissa focuses on the skills that her elementary children need to move forward, but at the same time she appreciates that learners are quite different now and that pedagogy and policy must shift radically to meet their needs and realities. Elastic literacies start with a mediated action (Wargo, 2015), which one can see unfolding in the photograph of Jennifer R. flipping Brianna’s flipbook in Figure 6. As Brianna carefully drew each subtle shift in action, sticky note after sticky note, the actions were mediated by dialogues with her peers and with Melissa, Jennifer B., Jennifer R., and Amélie. Timescales (Lemke, 2000) are also a factor, informing how Brianna thinks through her compositional practices as she makes her pencil move slowly in the flipbook. Being completely absorbed in the making of her flipbook, Brianna brought several timescales to bear on her work: listening to the YouTuber on making a flipbook, incorporating Jennifer B.’s framing of producing a flipbook, and the longer timescale (Lemke, 2000) of watching comics and animations at home when she was little. In other words, her shorter timescale learning in situ from Jennifer B. in the classroom combined with her longer acquaintance with drawing, comics, and transmediated stories at home made the activity so rich and generative for Brianna. In short, she brought them together into this elastic
literacies moment. Wargo (2015) also talks about the third part of elastic literacies, which is affective; he describes it as “the diagonal that cuts across activity and scale to account for how affective intensities of enfolding make the practice, action, and reception motile” (p. 51).

The Unique Value of Elastic Literacies

What elastic literacies offers us in thinking through the research data that other frameworks do not is: 1) an assembled, entangled, and dimensional look at how children produce a multimodal object imbuing their past experiences with comics and animations at home with their own love of particular visuals; 2) a love for an illustration style; 3) an abiding interest and new learning; 4) their own affective responses of joy and enthusiasm; and 4) dialogues with peers and adults about how it should work and look. Wargo’s (2015) deft theorizing of a young person’s snapchat use led us to appreciate Brianna’s careful and highly engaged practices while she made her flipbook. What we witnessed a number of times were mediated actions, an invoking of multiple timescales, and an abundance of affective responses.

Over the course of the research, there were moments when researchers had to think through and tease out the relationships between how children designed and how they adapted forms based on content. Burn (2016) argues that children’s digital designs stem from their creative expressions as shown in their animated characters’ facial expressions, selected camera angles, and the need for emotional representations through character designs. Students recognize the importance of emotion and affect, specifically the “affective charge of the vocal performance” (Burn, 2016, p. 320) of characters. In addition, Burn found that students involved in extracurricular drama classes are more attuned to understanding multimedia semiotics and digital composition. In their own way, both Wargo (2017) and Burn (2016) have found that vocal expressions play a large role in students’ meaning making.

Like Burn (2016), we maintain that we ought to decipher “children’s understanding of processes of representation” (p. 327). Ehret, Hollett, and Jocius (2016) examine representational and non-representational assemblages in their research by looking at how young people create digital videos of books that they have read to exemplify how bodies and materials work together within contexts. Ehret et al.’s (2016) work pushed us to think about how this transmedial work engages responsively with the complexity of multimodal work, specifically by foregrounding the aspects of multimodal work that deal with feelings, emotions, and bodies (i.e., referred to sometimes as non-representational aspects) and by situating how agency is co-constituted in the intra-activity (Barad, 2007) of bodies, materials, and environments (i.e., foreground in posthuman work in literacy studies; see Kuby & Rucker, 2016). We witnessed similar moments when children infused moods and emotions into their texts. A simple example materialized when we saw Maggie drawing the same face across all of her graphic texts, and how Maggie exploited colors, materials, textures, and visual effects to exude something in particular to the reader in Figure 7.

**Figure 7.** *SOS! Titanic!* (Wishinsky, 2010) scene by Maggie

---

*Language Arts*, Volume 96, Number 1, September 2018
**Curatorial Design Practices**

Zack found a soulmate in James during the research project because they shared a love of YouTube and the facts and instructions that they could get from YouTubers. Their mutual appreciation for curating YouTube for interesting facts and DIY instruction played out often during the research. Building on Jennifer R.’s research on autodidacts (Rowsell, Maues, Moukperian, & Colquhoun, 2017), we came to realize that there were a number of learners who were autodidacts and who watched TED Talks and YouTube videos outside of school to gain knowledge. In earlier research, Jennifer R. deconstructed how much contemporary learners cobble together knowledge from different and disparate sources like interviews and talks on YouTube or TED Talks alongside websites and online encyclopedic resources (Rowsell et al., 2017). After a few conversations with James and Zack, we discovered that they figured out most things by watching YouTubers. James admitted, “I research all kinds of stuff, like how to make slime.” During our interview with Zack, he also talked about using outside sources that he looked up or listened to in order to learn:

> It’s like, because like now in our generation, we have... like, we’re used to like on the computers now and like TV, so this is like—I’m not really as good at reading as normal people in our class. But it helps to look things up and listen to videos. (Interview, Dec. 4, 2017)

Zack enjoys school, but he finds the content hard. One of the reasons that he enjoyed the final animation assignment so much is that he could work with James, and together they could figure out things that the class could not: “Like, so in the editing, we didn’t know how to save, so me and James finished and nobody else’s saved, but ours, because we were just like finished and so it saved.” Given that Zack often feels marginal in the class, these small victories gave him more confidence in the classroom and with his peers.

By listening to podcasts and videos, learners like James and Zack think through social media by finding topics and investigating them. Here, there is a sense of what Ingold (2015) calls *wayfaring*, practices that are like movements across different types of texts in multiple formats. Wayfaring allows James and Zack slowly and at their own pace, to gather a sense of a topic, like slime, and to curate resources. We witnessed this respect for and a belief in information materialize in the graphic story and animation work across the research study.

**Discussion: Working with Modes and Celebrating Heroes**

Our analysis reveals the continuous need to nurture transmedia agility in learners, develop flexibility in making, and support children’s creativity to make them “open” producers. Seeing texts as subjective productions that sculpt language and shape discourse (Barthes, 1974) accentuates how imperative it is for teachers and researchers to understand children’s dialogical interactions with text as open rhizomatic circuits. Because aspects of a narrative can undergo sticky, yet meaningful transformations, transmedia production has the power to forge super-heroes inside and outside story worlds.

> Our analysis reveals the continuous need to nurture transmedia agility in learners, develop flexibility in making, and support children’s creativity to make them “open” producers.

When we recall our research in Melissa’s class, albeit a brief window into her everyday life with this grade 3–4 split class, the first thoughts that come to mind have to do with the relational, social map and the modal diversity and flexibility necessary to keep students engaged. The social map describes the existing relationships, intricacies, and complexities of peer groups—especially a peer group in its second year together with Melissa as their teacher. What stands out for us are the relational moments when Lionel followed Larry; when Caspar sparred with Lionel; when Zack sought out advice and affirmation; when Mohammed’s mind wandered. In other words, the human stories and emotions about
how and with whom children did transmedial work are deeply etched into our fieldwork and the stuff that sticks.

In terms of modal elasticity, flexibility, and diversity, no two flipbooks were the same, and each child gravitated to a particular graphic medium/media in varied, idiosyncratic ways. Symbolic activities like storyboarding called on drawing and writing as much as they called on talking, feeling, and embodying. There were many moments during the research when we saw how a child got inside of a mode, intermingled with it, and became entangled within it. It left us with an imprint that when children engage in tasks that they value, they are intensely engaged (Dyson, 2016).

Implications for Teachers

We believe this work has implications for teaching that have to do with incorporating professionals into classrooms so that students get more of an insider view of media and modalities. There is the social element that we call “the social map,” when students take on authentic roles for transmedia work and engage in DIY maker work. In addition, there is the messiness of the process that requires trial runs, experiments, some failure, and lots of scaffolding and feedback. Finally, there is a strong role of adults to elicit emotions and affect to inform production work. In Table 2, we offer 11 teaching tips to think about in planning graphic story work.

Authors’ Note

All students reported in this article have pseudonyms. We are grateful to the Social Sciences and Humanities Research Council of Canada (SSHRC) for supporting this research (grant number 435-2017-0097). This SSHRC-funded research study is associated with a European grant led by Dr. Jackie Marsh entitled, Maker Spaces in the Early Years: Enhancing Digital Literacy and Creativity (MakEY).

Table 2: Eleven Tips for Graphic Story Teaching

| 1. ORGANIZING A NOVEL PROGRAM: Ensure that there is a balance of whole class community reading of single title (i.e., teacher reads aloud); small groups (five titles in the series like literature circles); and independent reading. |
| 6. TRANSFORMING A NOVEL EXCERPT INTO GRAPHIC TEXT: Students are provided with one page of text from a novel and are invited to create a graphic novel page of four to six panels. Pages should include narrative captions, speech and/or thought bubbles, and different points of view. |
| 2. EXPLORE FEATURES OF GRAPHIC TEXTS: Identify and record terminology connected to graphic texts (e.g., panels, narrative captions, thought bubbles). |
| 7. EXPLORING APPS: Programs such as Pixton encourage students to create a graphic page of a novel excerpt. |
| 3. FOCUS ON DIALOGUE: Demonstrate, with examples, how to transfer dialogue (novel) into speech bubbles (graphic text). |
| 8. COLLABORATIVE PROJECT: Individual student contributions can be assembled into a published piece or power point presentation to demonstrate how a novel in traditional format can be transformed into a graphic novel for others to read. |
| 4. FOCUS ON NARRATIVE CAPTIONS: Explain how narrative options often summarize what is happening in a graphic panel, perhaps signifying time and place. Demonstrate, with examples how to transform narration (novel) into narrative captions (graphic text). |
| 9. EXPLORING ANIMATION: Programs such as Toontastic encourage students to create an animated page of a novel excerpt. |
| 5. FOCUS ON POINT OF VIEW: Demonstrate, with examples, how artists use close-up, medium or panoramic/landscape views to tell a story. Encourage students to recognize differences in the way scenes are presented in a graphic story. What are some different formats for graphic panels? |
| 10. THINKING LIKE A PROFESSIONAL: Have students take on different roles in their animation teams such as script writer, Foley artist, copywriter, and visual effects designer. |
| 11. INDEPENDENT READING: Students independently read a published graphic novel. Students may respond to the novel through writing, discussion, visual arts or dramatization. |
References


*Language Arts*, Volume 96, Number 1, September 2018
The Stuff that Heroes are Made of: Elastic, Sticky, Messy Literacies in Children’s Transmedial Cultures

This article shares multiple activities that incorporate visual literacies. Here are resources from ReadWriteThink.org that build on those activities:

Teaching about Story Structure Using Fairy Tales

- From “once upon a time” to “happily ever after,” students learn to recognize story structure in fairy tales and create a logical sequence of events when writing original stories.
  
  http://bit.ly/2qI5QdM

3-2-1 Vocabulary: Learning Filmmaking Vocabulary by Making Films

- Bring the vocabulary of film to life through the processes of filmmaking. Students learn terminology and techniques simultaneously as they plan, film, and edit a short video.
  

Comics and Graphic Novels

- Instead of creating traditional book reports or writing summaries, get “graphic” by creating a comic book or cartoon adaptation of the major scenes from the books.
  

Jennifer Rowsell is a professor and Canada Research Chair in Multiliteracies at Brock University, Department of Teacher Education, St. Catharines, Ontario, Canada. She can be contacted at jrowsell@brocku.ca. Amélie Lemieux is a postdoctoral Research Fellow at Brock University, Centre for Research in Multiliteracies, St. Catharines, Ontario, Canada. She can be contacted at alemieux@brocku.ca. Larry Swartz is a literacy instructor at the Ontario Institute for Studies in Education, University of Toronto, Ontario, Canada. More information and monthly book reviews of children’s literature can be found on his website larryswartz.ca. Melissa Turcotte is a teacher with the Niagara Catholic District School Board, Ontario, Canada. She can be contacted at melissa.turcotte@ncdsb.com. Jennifer Burkitt is founder and Creative Director of her own digital studio, Log Cabin Productions Inc., Ontario, Canada. More information can be found on her website http://www.logcabinproductions.com/.

The Stuff That Heroes Are Made Of: Elastic, Sticky, Messy Literacies in Children’s Transmedial Cultures

This article shares multiple activities that incorporate visual literacies. Here are resources from ReadWriteThink.org that build on those activities:

Teaching about Story Structure Using Fairy Tales

- From “once upon a time” to “happily ever after,” students learn to recognize story structure in fairy tales and create a logical sequence of events when writing original stories.
  
  http://bit.ly/2qI5QdM

3-2-1 Vocabulary: Learning Filmmaking Vocabulary by Making Films

- Bring the vocabulary of film to life through the processes of filmmaking. Students learn terminology and techniques simultaneously as they plan, film, and edit a short video.
  

Comics and Graphic Novels

- Instead of creating traditional book reports or writing summaries, get “graphic” by creating a comic book or cartoon adaptation of the major scenes from the books.
  

Jennifer Rowsell is a professor and Canada Research Chair in Multiliteracies at Brock University, Department of Teacher Education, St. Catharines, Ontario, Canada. She can be contacted at jrowsell@brocku.ca. Amélie Lemieux is a postdoctoral Research Fellow at Brock University, Centre for Research in Multiliteracies, St. Catharines, Ontario, Canada. She can be contacted at alemieux@brocku.ca. Larry Swartz is a literacy instructor at the Ontario Institute for Studies in Education, University of Toronto, Ontario, Canada. More information and monthly book reviews of children’s literature can be found on his website larryswartz.ca. Melissa Turcotte is a teacher with the Niagara Catholic District School Board, Ontario, Canada. She can be contacted at melissa.turcotte@ncdsb.com. Jennifer Burkitt is founder and Creative Director of her own digital studio, Log Cabin Productions Inc., Ontario, Canada. More information can be found on her website http://www.logcabinproductions.com/.

The Stuff That Heroes Are Made Of: Elastic, Sticky, Messy Literacies in Children’s Transmedial Cultures

This article shares multiple activities that incorporate visual literacies. Here are resources from ReadWriteThink.org that build on those activities:

Teaching about Story Structure Using Fairy Tales

- From “once upon a time” to “happily ever after,” students learn to recognize story structure in fairy tales and create a logical sequence of events when writing original stories.
  
  http://bit.ly/2qI5QdM

3-2-1 Vocabulary: Learning Filmmaking Vocabulary by Making Films

- Bring the vocabulary of film to life through the processes of filmmaking. Students learn terminology and techniques simultaneously as they plan, film, and edit a short video.
  

Comics and Graphic Novels

- Instead of creating traditional book reports or writing summaries, get “graphic” by creating a comic book or cartoon adaptation of the major scenes from the books.
  

Jennifer Rowsell is a professor and Canada Research Chair in Multiliteracies at Brock University, Department of Teacher Education, St. Catharines, Ontario, Canada. She can be contacted at jrowsell@brocku.ca. Amélie Lemieux is a postdoctoral Research Fellow at Brock University, Centre for Research in Multiliteracies, St. Catharines, Ontario, Canada. She can be contacted at alemieux@brocku.ca. Larry Swartz is a literacy instructor at the Ontario Institute for Studies in Education, University of Toronto, Ontario, Canada. More information and monthly book reviews of children’s literature can be found on his website larryswartz.ca. Melissa Turcotte is a teacher with the Niagara Catholic District School Board, Ontario, Canada. She can be contacted at melissa.turcotte@ncdsb.com. Jennifer Burkitt is founder and Creative Director of her own digital studio, Log Cabin Productions Inc., Ontario, Canada. More information can be found on her website http://www.logcabinproductions.com/.

The Stuff That Heroes Are Made Of: Elastic, Sticky, Messy Literacies in Children’s Transmedial Cultures

This article shares multiple activities that incorporate visual literacies. Here are resources from ReadWriteThink.org that build on those activities:

Teaching about Story Structure Using Fairy Tales

- From “once upon a time” to “happily ever after,” students learn to recognize story structure in fairy tales and create a logical sequence of events when writing original stories.
  
  http://bit.ly/2qI5QdM

3-2-1 Vocabulary: Learning Filmmaking Vocabulary by Making Films

- Bring the vocabulary of film to life through the processes of filmmaking. Students learn terminology and techniques simultaneously as they plan, film, and edit a short video.
  

Comics and Graphic Novels

- Instead of creating traditional book reports or writing summaries, get “graphic” by creating a comic book or cartoon adaptation of the major scenes from the books.
  

Jennifer Rowsell is a professor and Canada Research Chair in Multiliteracies at Brock University, Department of Teacher Education, St. Catharines, Ontario, Canada. She can be contacted at jrowsell@brocku.ca. Amélie Lemieux is a postdoctoral Research Fellow at Brock University, Centre for Research in Multiliteracies, St. Catharines, Ontario, Canada. She can be contacted at alemieux@brocku.ca. Larry Swartz is a literacy instructor at the Ontario Institute for Studies in Education, University of Toronto, Ontario, Canada. More information and monthly book reviews of children’s literature can be found on his website larryswartz.ca. Melissa Turcotte is a teacher with the Niagara Catholic District School Board, Ontario, Canada. She can be contacted at melissa.turcotte@ncdsb.com. Jennifer Burkitt is founder and Creative Director of her own digital studio, Log Cabin Productions Inc., Ontario, Canada. More information can be found on her website http://www.logcabinproductions.com/.

The Stuff That Heroes Are Made Of: Elastic, Sticky, Messy Literacies in Children’s Transmedial Cultures

This article shares multiple activities that incorporate visual literacies. Here are resources from ReadWriteThink.org that build on those activities:

Teaching about Story Structure Using Fairy Tales

- From “once upon a time” to “happily ever after,” students learn to recognize story structure in fairy tales and create a logical sequence of events when writing original stories.
  
  http://bit.ly/2qI5QdM

3-2-1 Vocabulary: Learning Filmmaking Vocabulary by Making Films

- Bring the vocabulary of film to life through the processes of filmmaking. Students learn terminology and techniques simultaneously as they plan, film, and edit a short video.
  

Comics and Graphic Novels

- Instead of creating traditional book reports or writing summaries, get “graphic” by creating a comic book or cartoon adaptation of the major scenes from the books.
  

Jennifer Rowsell is a professor and Canada Research Chair in Multiliteracies at Brock University, Department of Teacher Education, St. Catharines, Ontario, Canada. She can be contacted at jrowsell@brocku.ca. Amélie Lemieux is a postdoctoral Research Fellow at Brock University, Centre for Research in Multiliteracies, St. Catharines, Ontario, Canada. She can be contacted at alemieux@brocku.ca. Larry Swartz is a literacy instructor at the Ontario Institute for Studies in Education, University of Toronto, Ontario, Canada. More information and monthly book reviews of children’s literature can be found on his website larryswartz.ca. Melissa Turcotte is a teacher with the Niagara Catholic District School Board, Ontario, Canada. She can be contacted at melissa.turcotte@ncdsb.com. Jennifer Burkitt is founder and Creative Director of her own digital studio, Log Cabin Productions Inc., Ontario, Canada. More information can be found on her website http://www.logcabinproductions.com/.

The Stuff That Heroes Are Made Of: Elastic, Sticky, Messy Literacies in Children’s Transmedial Cultures

This article shares multiple activities that incorporate visual literacies. Here are resources from ReadWriteThink.org that build on those activities:

Teaching about Story Structure Using Fairy Tales

- From “once upon a time” to “happily ever after,” students learn to recognize story structure in fairy tales and create a logical sequence of events when writing original stories.
  
  http://bit.ly/2qI5QdM

3-2-1 Vocabulary: Learning Filmmaking Vocabulary by Making Films

- Bring the vocabulary of film to life through the processes of filmmaking. Students learn terminology and techniques simultaneously as they plan, film, and edit a short video.
  

Comics and Graphic Novels

- Instead of creating traditional book reports or writing summaries, get “graphic” by creating a comic book or cartoon adaptation of the major scenes from the books.
  

Jennifer Rowsell is a professor and Canada Research Chair in Multiliteracies at Brock University, Department of Teacher Education, St. Catharines, Ontario, Canada. She can be contacted at jrowsell@brocku.ca. Amélie Lemieux is a postdoctoral Research Fellow at Brock University, Centre for Research in Multiliteracies, St. Catharines, Ontario, Canada. She can be contacted at alemieux@brocku.ca. Larry Swartz is a literacy instructor at the Ontario Institute for Studies in Education, University of Toronto, Ontario, Canada. More information and monthly book reviews of children’s literature can be found on his website larryswartz.ca. Melissa Turcotte is a teacher with the Niagara Catholic District School Board, Ontario, Canada. She can be contacted at melissa.turcotte@ncdsb.com. Jennifer Burkitt is founder and Creative Director of her own digital studio, Log Cabin Productions Inc., Ontario, Canada. More information can be found on her website http://www.logcabinproductions.com/.