

**Transmediation in the Inquiry Process: Expanding Meaning-Making  
Opportunities**

Benjamin A. Boche, Ph.D.

Assistant Professor of Education

Valparaiso University

[Benjamin.Boche@valpo.edu](mailto:Benjamin.Boche@valpo.edu)

**Abstract:** As the notion of literacy has moved to literacies—social practices that include multiple modes of meaning (NCTE, 2018)—the classroom environment is now filled with visual, electronic, and other types of texts that call on multiple skills from students to make meaning (Walsh, 2009). This article explores the role of transmediation in the inquiry process in a K-8 university literacy methods course to help expand preservice teachers’ understandings of literacy and literacy pedagogy. Preservice teachers created transmediation products to share the findings of their inquiry research, and these products are analyzed using van Leeuwen’s (2011) communicative potential and effectiveness elements, which included looking at the composition, color, and typography. Findings indicate that although preservice teachers struggled with understanding transmediation and whether or not they were successful in creating transmediation products, they found the transmediation process beneficial to increasing their knowledge about their inquiry topics, viewed transmediation as helping expand their understandings of literacy, and saw transmediation as a potential tool to use in their future classrooms.

## **Transmediation in the Inquiry Process: Expanding Meaning-Making Opportunities**

As the notion of literacy has moved to literacies—social practices that include multiple modes of meaning (NCTE, 2018)—the classroom environment is now filled with visual, electronic, and other types of texts that call on multiple skills from students to make meaning (Walsh, 2009). One of my main goals as a teacher educator, therefore, is to spend time expanding my preservice teachers’ notions of literacy in order to help them better serve their future students. Like many teacher education classes, this includes integrating technology into my teaching and coursework, knowledge-mapping their thinking about literacy over the course of the semester, and having preservice teachers write reflections about their experiences in seeing literacy differently than just print-based modes. However, I also seek to push my preservice teachers out of their comfort zone to experiment with new ideas and new thinking when it comes to literacy, more so than having them create a video in place of a written assignment - although that is also valuable!

Every semester my K-8 introductory literacy methods course, consisting primarily of sophomores, engages in an inquiry project. While inquiry learning has been present since Dewey (Barrow, 2006), I am always surprised at how many of my preservice teachers never experienced an inquiry project in their K-12 formal schooling whereby they were able to research and present on a topic of choice. In addition to teaching my preservice teachers about the steps of the inquiry process, they research and present on topics we do not always have time to cover in-depth in class. Topics usually range from different handwriting programs, to specific disabilities such as dysgraphia, to broader ideas like integrating more formal public speaking in the classroom. The preservice teachers present in small groups to their peers and include some teaching takeaways for future classroom teaching.

I am usually purposefully vague when they ask about what their presentations should look like (i.e. PowerPoint, a poster board, etc.) because I want them to decide the

best way to present their research to their classmates by considering the limitations and affordances of each mode. In one recent semester, I introduced the concept of transmediation, moving from one sign system to another sign system, and made it a requirement that my preservice teachers take their text-based readings and notes on their topic and transmediate the information into some sort of visual. The goal of this requirement was two-fold: to help my preservice teachers think about their inquiry topics in a different way and to help expand their understanding of literacy and literacy pedagogy.

### **Transmediation**

Transmediation draws from semiotics and the idea of taking understandings from one sign system and moving it to another system (Siegel, 1995) and the connections and meaning that are made in this transaction. Various scholars have viewed this process in different ways regarding literacy. Carey (2012) views transmediation as enabling a more critical interpretation of a text through close reading and thoughtful interpretation. Griffith (2019) agrees in terms of transmediation helping students understand relationships between complementary sign systems such as the written text and the visual. The visual sign system, in particular, can improve learning outcomes by creating different opportunities for students to display their learning (Cappello, 2019).

Most importantly, transmediation reflects the broader need to move classrooms and literacy teaching and learning into the 21<sup>st</sup> century. This includes moving beyond traditional print-based literary practices (Cappello, 2019) as well as helping students make sense of the multimedia world through creating, composing, and communicating in a variety of sign systems (Carey, 2012). Literacy, then, is viewed as meaning-making in both text-based forms and image-based forms to form more complex literacy practices (Leland, Ociepka & Wackerly, 2015). These new understandings of literacy are especially important for preservice teachers, and Marlatt (2019) argues transmediation creates a participatory culture, where preservice teachers are able to create content,

apply learned skills in practice, and construct reflections on their developing understandings of pedagogy and literacy. Marlatt, in particular, found in his research study on preservice teachers creating literacy-based videos the importance of critical consideration of purpose and learning design. This is similar to Capello's (2019) findings that multimodal projects contribute to preservice teachers' understandings of transmediation as both a pedagogical and curriculum expression tool.

The inquiry process, in particular, connects to both developing more complex notions of literacy and transmediation. Batchelor (2015) argues that the inquiry process in itself is a semiotic act when it is connected to examining questions that are connected to students' lives. In particular, transmediation is deeply connected to the inquiry process when looking at self-driven learning through multiple ways of knowing and sharing information. Using transmediation in the inquiry process may provide opportunities for preservice teachers to understand how to better position themselves during semiotic acts of transmediating.

### **Methodology**

Transmediation was a completely new idea for my preservice teachers. Therefore, the research questions for this study included:

- How do preservice teachers view transmediation and the transmediation process?
- How does using transmediation in the inquiry process influence preservice teachers' understandings of literacy and literacy pedagogy?

Participants included 50 preservice education students in a K-8 literacy methods course at a Midwest regional state university. This course was an introductory literacy course that covers topics such as phonemic awareness, phonics, fluency, comprehension, vocabulary, reading and writing in the classroom, English Speakers of Other Languages (ESOL), and the relevant pedagogical practices associated with these topics.

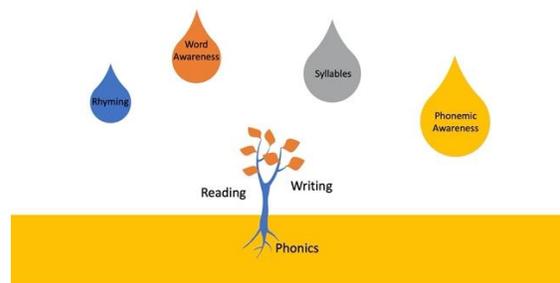
In addition to leading my students through the inquiry process by brainstorming

possible research topic ideas, helping them locate relevant information, providing graphic organizers to capture information and ideas, and meeting one-on-one with students to discuss presentation ideas, I also spent time defining and describing transmediation along with providing an example of a transmediation product. Figures 1a and 1b show two PowerPoint slides, one with written information, and another with a visual transmediation product of the information. In a think-aloud in one class session, I described how I took the written information and made specific choices to create my visual product. In the same session, we also had a brief class discussion on how the visual transmediation product contributed to meaning-making and a more thorough understanding of the written information. The class discussion centered around visual products they encounter in everyday life (emojis, gifs in text messages, and memes) and how those are similar to transmediation products they were expected to do in their inquiry projects.

The goal was to model to my students how the transmediation process works while also helping them think about their own possible transmediation products.

For example, changing these written notes to...

- **Phonological Awareness:** is an umbrella term covering the detection and manipulation of sound at the syllable, onset and rime, and phoneme levels of sound structure.
- **Phonemic Awareness:** Is defined as the ability to hear and manipulate individual sounds in words.
- **Phoneme:** the smallest unit of speech sound that makes a difference in the meaning of words
- **Grapheme:** Smallest part of written text that represent a phoneme
- **Phonics:** Predictable relationship between phonemes and graphemes



*Figure 1a*

*Figure 1b*

Over the course of several class periods (about three weeks) I gave my students time for research; time to work in class where I would check-in with them concerning their topics, what they had found, and what their plans were for their presentations and their

transmediation products; and gave opportunities for students to ask each other and myself questions about the inquiry and transmediation process.

Data included student reflections, inquiry presentations, transmediation products, and interviews with two focus groups totaling 16 students. Students were chosen for the focus groups based on the differences in their topics and products—I tried to capture a variety of literacy topics as well as transmediation products. The focus group interviews occurred after students presented their inquiry projects, and questions focused on their understanding of transmediation, how and why they created their transmediation products, and how the inquiry process and transmediation had impacted their understanding of literacy (see appendix A for interview questions).

All of these elements served as multiple data points for analysis. Data from student reflections and the focus group interviews was reduced into manageable and meaningful segments by initially focusing on the deductive codes of inquiry, transmediation, and literacy (Miles, Huberman & Saldana, 2014). From there, inductive codes were generated from the data and included codes such as choice, learning, creativity, engagement, and differentiation.

Additionally, the preservice teachers' transmediation products were analyzed using van Leeuwen's (2011) communicative potential and effectiveness elements, which included looking at the composition, color, and typography elements of the products. Examples of preservice teacher products are below in Figures 2-6.

## **Findings**

### **Transmediation Process**

After they finished the inquiry process and presentations, the preservice teachers indicated they enjoyed the inquiry process but were less enthusiastic about transmediation, since many indicated they were not sure if they were “doing it right.” Although they were not necessarily able to repeat back to me the formal definition of transmediation, they were able to understand the goal of transmediation, with one

preservice teacher describing it as “showing material and information in multiple ways.” They could also identify some positives in transmediating information since they argued transmediation “helped us find different forms of media to use and dig deeper to find important information.” For the most part, though, they struggled with the process. One preservice teacher indicated that she was “kind of confused about how we were supposed to represent our topic if there weren’t any supplemented images in the text,” while another preservice teacher discussed how she “struggled with figuring out transmediation and how to incorporate the graphics into my presentation. I am still not quite sure if I actually had transmediation in my project or not.”

With that said, the preservice teachers did indicate that many of the visuals they created helped their classmates understand and learn their topics better. For instance, one preservice teacher said, “the drawn visuals helped my audience understand my topic the best and learned the most important pieces of cursive writing because there were less words and more visuals,” while another said, “I was able to present it really well and just show the visuals, so [my classmates] were able to grasp the ideas quicker because they just looked at simple words and the visual as opposed to long paragraphs that take a long time to process.” Most importantly, though, the transmediation process helped the preservice teachers understand their own topics much better. One preservice teacher indicated, “I think the transmediation process that I used helped me to better understand the findings. This made it easier for me to present the information to my audience, and the audience could tell that I was knowledgeable about my topic.” Similarly, another preservice teacher felt very confident in their topic since creating the visuals, “helped me actually understand better what I read and showed that I really understood the information.”

### **Transmediation Products**

Van Leeuwen (2011) outlines several different elements to communicative potential and effectiveness: composition, color, and typography. Composition refers to page layouts and the spatial zones of pictures and texts. For instance, there may be some

polarization between information that is on the left and right. The information on the left is often referred to as the *given*, or what we already know, while the information on the right is the new or the information the message is trying to get across. For example, in Figure 2, the preservice teacher presented the *given* on the left, which is the word “listen,” of which most people have a basic understanding. Contrast this with the information on the right, the *new*, where the preservice teacher presented new information on the topic of “listening.”

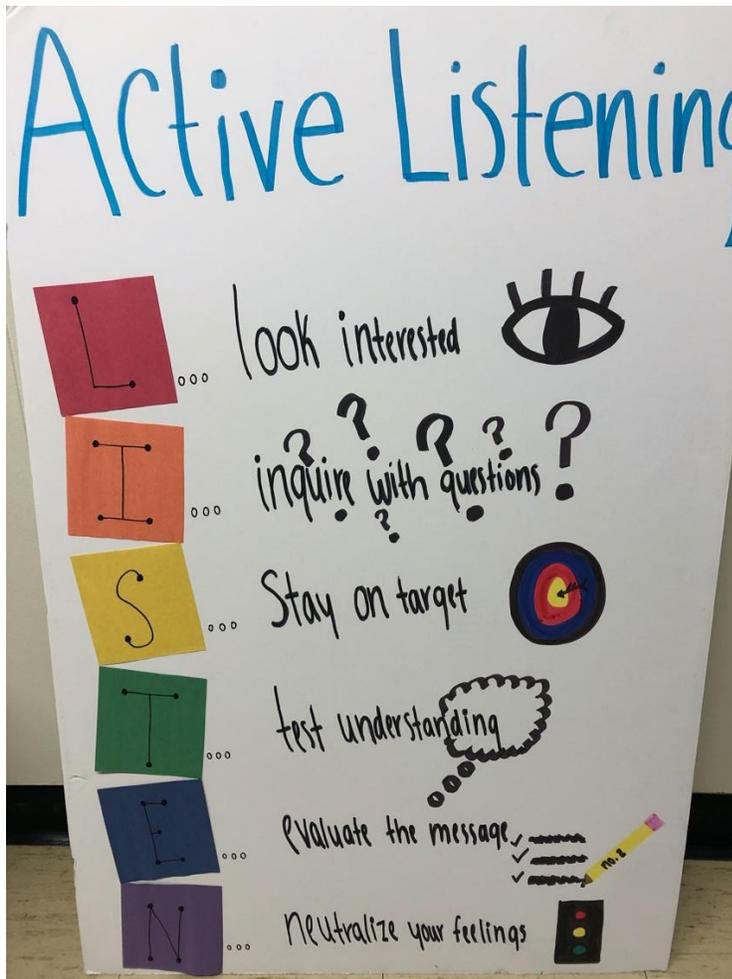


Figure 2

Composition also includes centering that does not have polarization but rather a central

message that unifies the information surrounding it. Figure 3 shows this center composition where fluency is the focus of the product with the surrounding information (phonemic awareness, phonics, vocabulary, and comprehension plus the teaching strategies of reader's theater, interactive read aloud, running records, and retelling) all supporting the central topic of fluency.

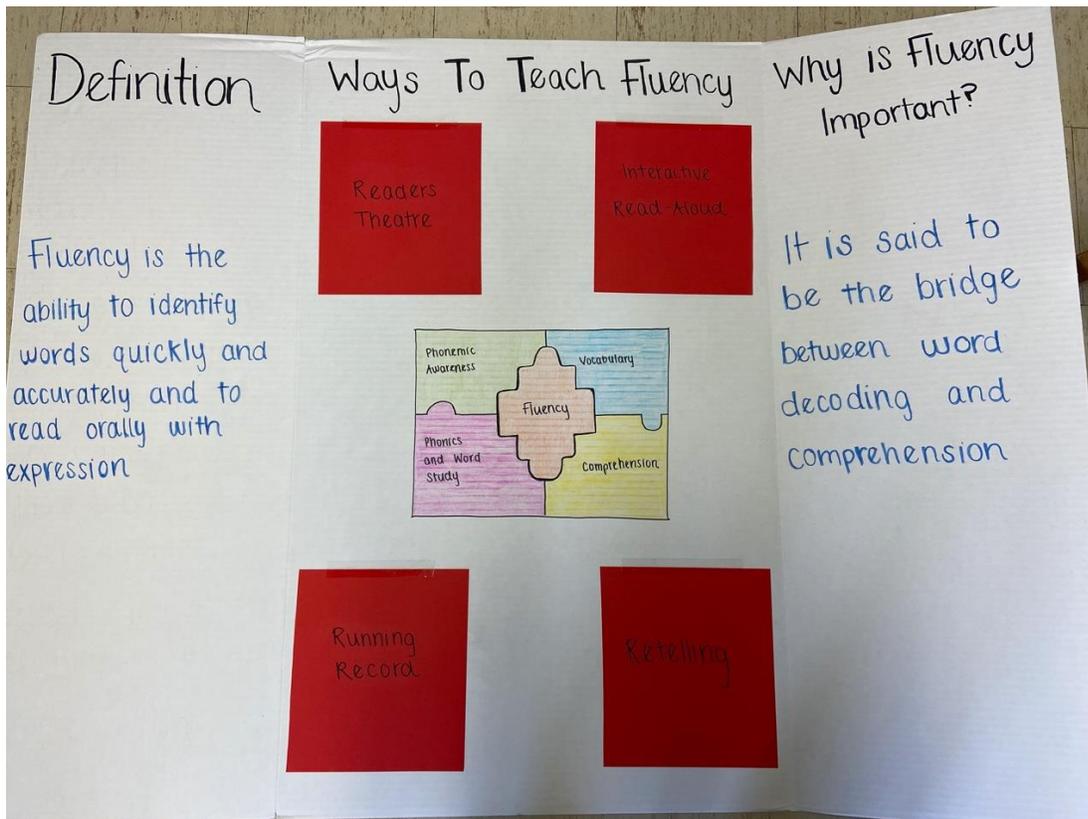
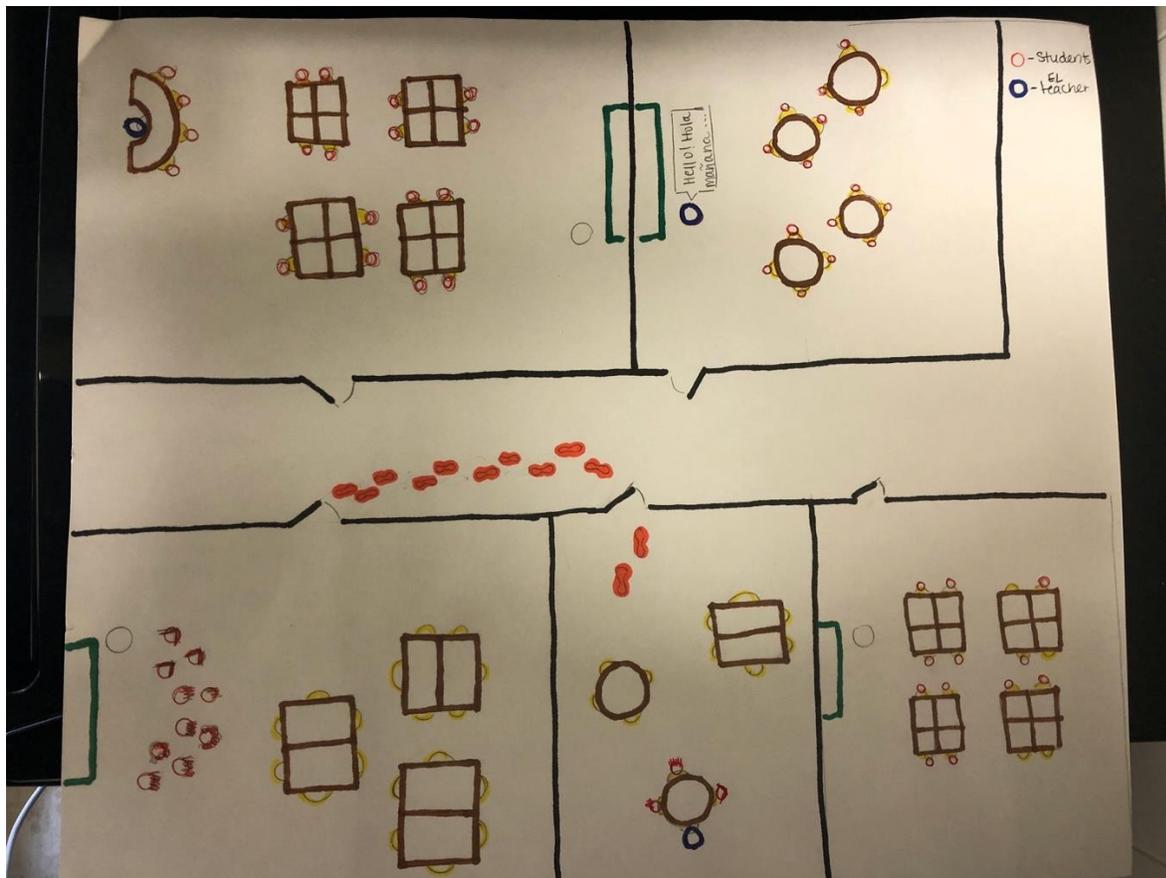


Figure 3

These different composition styles add to the communicative effectiveness of the transmediation products and contribute to deeper meaning-making.

Van Leeuwen (2011) argues that while you can find color codes through a quick Internet search to locate information such as warm and cool colors, these codes are not necessarily definite. However, colors do convey ideas and emotions and help link information in a composition in a meaningful way. For instance, in looking at the

communicative effectiveness of the colors in Figure 4, the preservice teacher used specific colors to represent the different people in the classroom - the students and the teacher—and how they can be configured in different classroom settings. The preservice teacher was attempting to show the many ways English Language teachers can arrange their classrooms to provide push-in and pull-out supports for English Language Learners.



*Figure 4*

For instance, you can see the red footprints moving from one classroom to another to show pull-out supports. The preservice teacher noted that she did this specifically to create a visual “showing the different ways students can be serviced, many of which I learned in my research occurred in the classroom in different ways.”

Figure 5 represents a transmediation product on the topic of dyslexia. The preservice decided to represent dyslexia as an iceberg to show the complexity of dyslexia and how oftentimes teachers do not see the whole picture. The preservice teacher chose the color yellow to represent the “detector” used to locate the iceberg and colored the detector information yellow (“teacher and strategies used to help dyslexia students process and learn new info”) to help draw attention to the detection information.

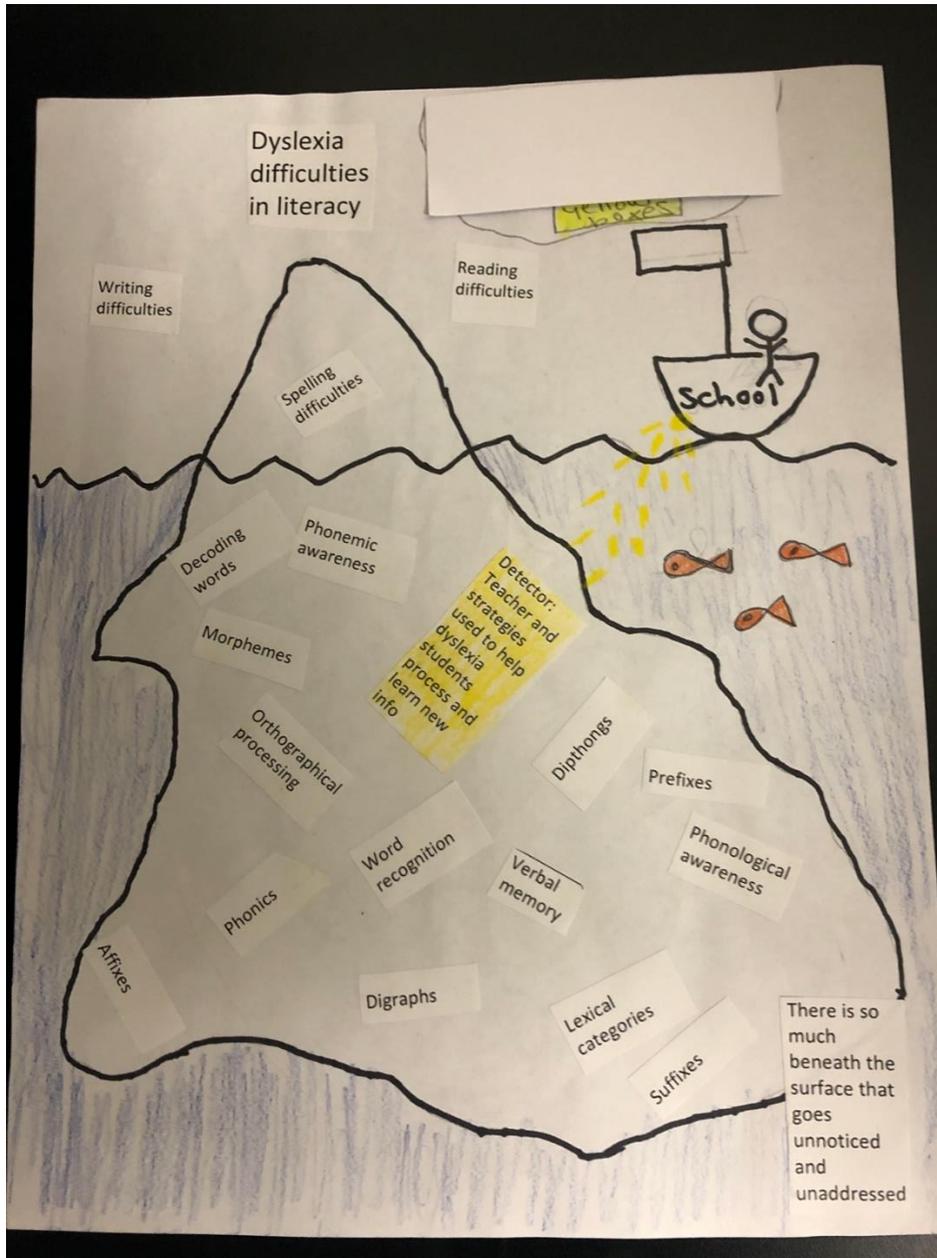


Figure 5

The use of color in Figures 4 and 5 represents a purposeful action by the preservice teachers to provide an extra layer of meaning to the products they created and the information they presented.

Finally, van Leeuwen (2011) discusses how different typography, or fonts, convey different messages including how the fonts can indicate a specific connotation or metaphor. For instance, in Figure 6, the word ‘benefits’ is all capitalized and bolded and therefore has added weight on the product, which van Leeuwen discusses can mean “assertive”, or in this case, “important.” Similarly, even though the different words in Figure 6 might be the same font, all are different colors, deliberately chosen by the preservice teacher to draw attention to the different components of the brain cursive writing uses along with the different benefits.

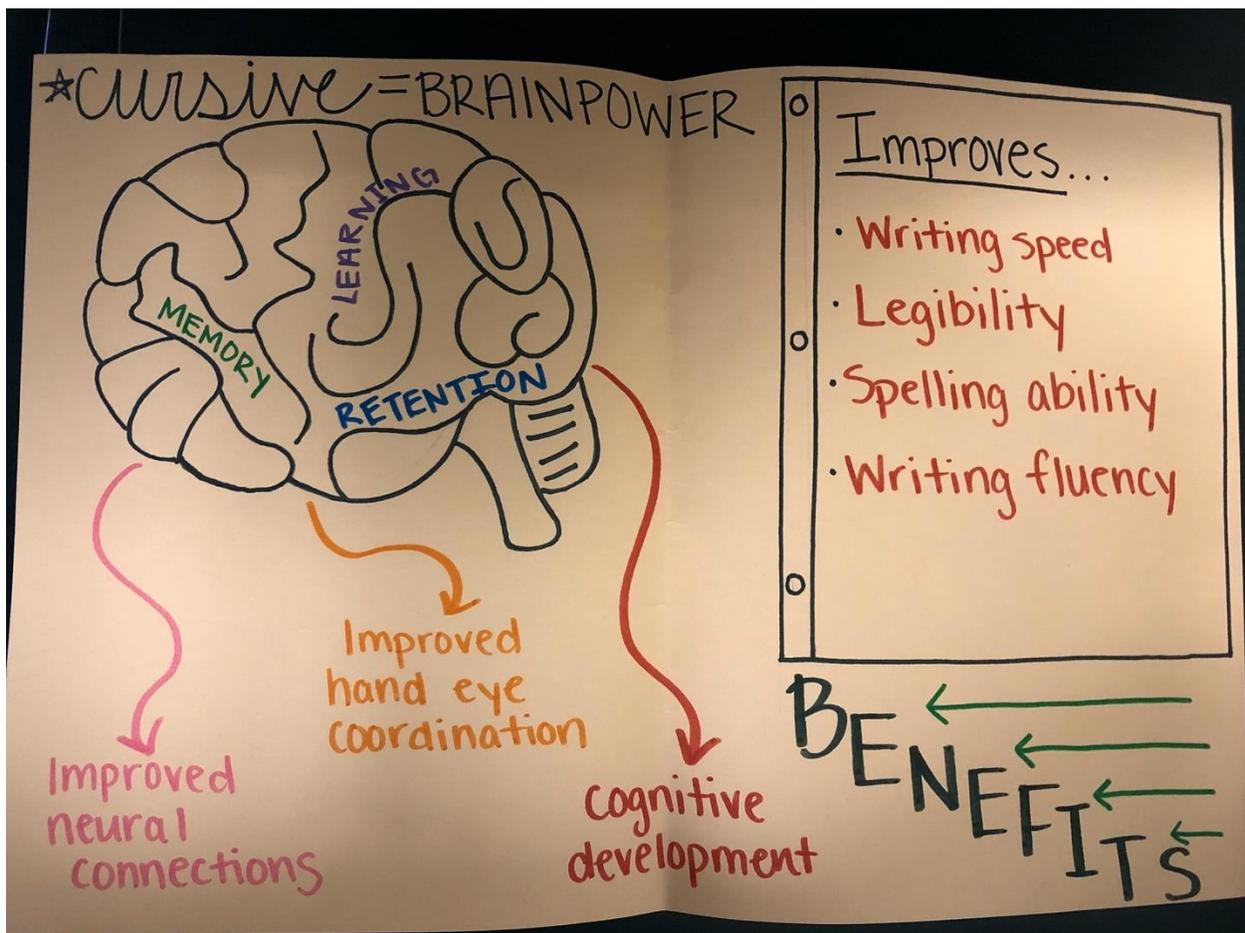


Figure 6

Another example of typography that adds meaning to the message is in Figure 2 where the preservice teacher added pictures and symbols to draw attention to the important information about “listening.” Whether it be composition, color, or typography, the transmediation products the preservice teachers created not only indicates their enhanced knowledge of their inquiry topic, but also shows their specific choices to best convey this information to their classmates.

Ideally, all of my 50 students’ transmediation products would have incorporated such strong communicative potential and effectiveness, but the majority of my students’ products resembled in some shape or form figure 7 below.

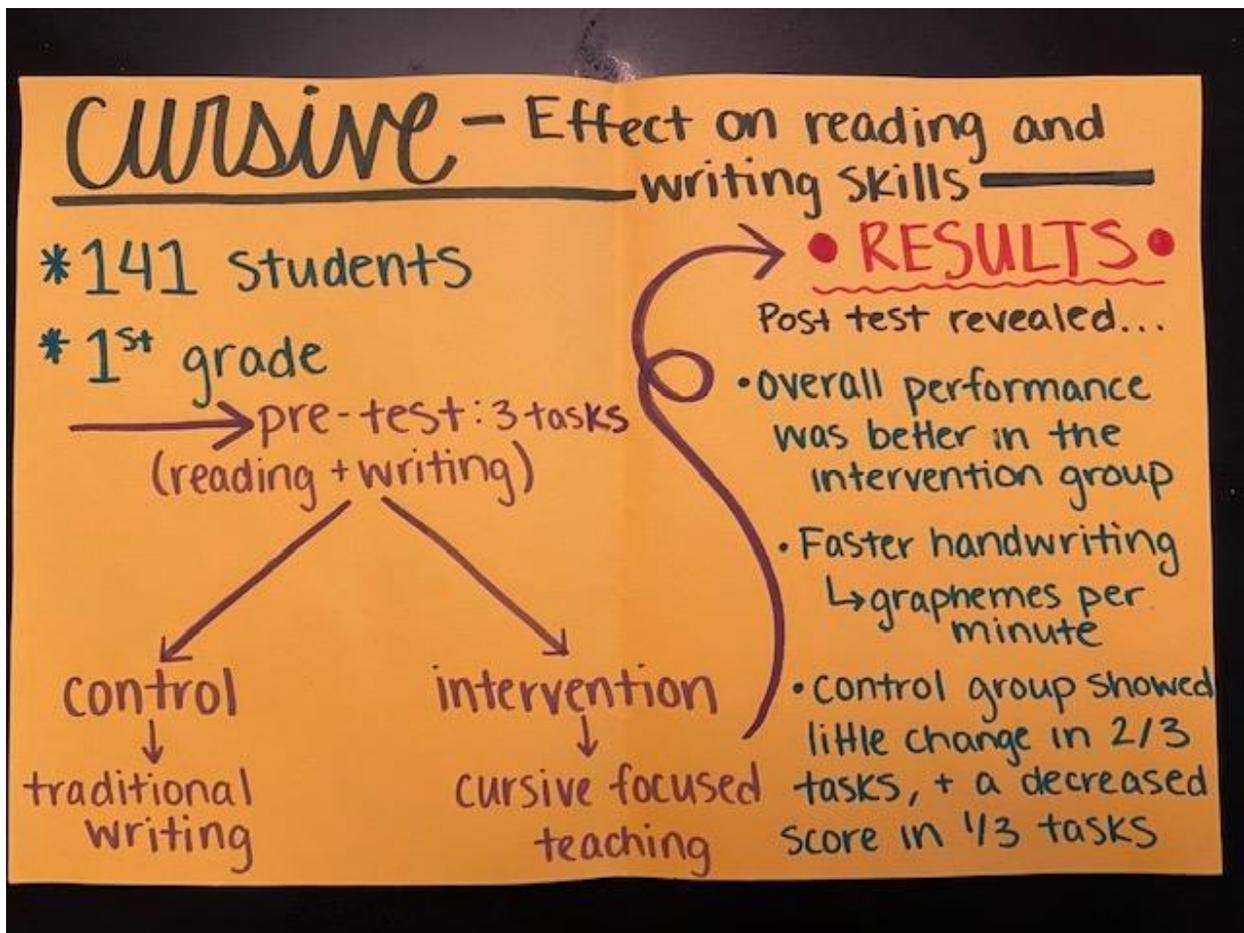


Figure 7

While there was some thought in terms of color choices (blue to represent the study population, purple for the methodology, red to represent the results section), as well as typography (the word cursive is in a cursive font), and potentially composition (some directional arrows to lead the reader in reading the page), the actual product is all text-based. There are no images to represent information and there was no attempt to take any of these text-based research notes and transmediate them into a visual product. I do, though, appreciate how this product highlights the most important pieces of information from research.

### **Transmediation and Literacy**

Despite their unsureness about whether or not they “were doing transmediation right,” the preservice teachers found the process rewarding and began to think about literacy and literacy pedagogy differently. One preservice teacher mentioned, “there are a lot more ways to teach literacy and check comprehension in literacy, and I think transmediation is another way to do it that we’ve learned.” Another preservice teacher discussed that showing “there are other ways to teach literacy than just reading, writing, and speaking,” would be important for different groups of students such as English Language Learners and Special education students who may struggle with traditional reading and writing. This was also true for using transmediation as a way to assess student knowledge “besides just answering the question and filling in the bubble.”

Most importantly, the preservice teachers saw the value of transmediation in terms of literacy pedagogy. A preservice teacher “learned the importance of giving students multiple representations of information. Similar to differentiation, it is important to present information through more than just one media to reach students in a variety of ways.” The preservice teachers also noted how transmediation can contribute to motivation as “teachers can use transmediation to increase student motivation since there are so many ways to use it instead of the predictable lessons that students might expect.” Finally, the preservice teachers recognized how having their future students create the visual representations of information can aid in

comprehension. For example, one preservice teacher argued “if we talked about something or learned something, then you can have the students try to represent it visually somehow to see if they have a true understanding of it.” While these ideas connecting transmediation to literacy and literacy pedagogy may be at the developing level, the preservice teachers did find transmediation as a valuable tool to use in their future classrooms.

### **Discussion**

McCormick (2011) argues that transmediation forces learners to grasp and form an organizational structure of ideas and concepts in order to be able to successfully create a transmediation product that captures the essence of the original concept. Mills (2011) agrees transmediation can be transformational concerning student understanding and that it forces students to be very generative in their thinking while they are transmediating materials. Many of my preservice teachers noted that they made specific choices when creating their transmediation topics. For example, two preservice teachers discuss this idea when describing how they created their transmediation product:

We did the importance of public speaking, so we made a big umbrella that said, ‘public speaking’ and then a whole bunch of different raindrops that had different aspects of public speaking. We made that visual because we were trying to represent that public speaking as a whole is not like a step-by-step procedure, but rather you need all the raindrops falling together at the same time since they are all together tied up in public speaking.

As mentioned in the analysis of the products and the quote above, through acts of transmediation my preservice teachers were better able to articulate and communicate their understanding of the information and to help their classmates have a stronger grasp of their topics. Transmediation, therefore, may be used to help foster stronger comprehension of key concepts and support more complex thinking processes.

With that said, my preservice teachers could have used some more guidance from me when creating their transmediation products. While I did spend one class session using a think-aloud to model my choices when creating my own transmediation product along with a class discussion about its effectiveness, my interactions with individual preservice teachers were more about asking if they had an idea for their product or brainstorming ideas than offering strong support. What my preservice teachers created amazed me in numerous ways, but in hindsight, I now recognize that I should have spent time teaching them the communicative effectiveness elements that van Leeuwen (2011) mentions. In doing this, my goal would not be to create graphic designers, but rather show how texts and images work together and how the different communicative potentials that exist in different combinations can aid in teaching and learning. A simple overview of composition, color, and typography might have gone a long way to not only help my students be more thoughtful and confident when creating their products, but also give them some language on how to talk about the role of visuals in meaning-making with their future students.

Similarly, K-12 teachers across all content areas can incorporate both the creation and analysis of transmediation products in their everyday classrooms. For example, science teachers could have students represent the work and function of the different parts of cells in visual products or have them create a visual hypothesis for what might happen in a lab or experiment. Primary grade teachers can have students create visual sequence panels (Griffith, 2019) to interpret a book or textbook's major events, characters, the problem/solution, and so forth. Teachers could also have younger primary students analyze the composition and colors of pictures in picture books or textbooks (Serafini, 2014) to potentially discuss an author's point of view, better understand the theme or main message, and so forth. Social studies teachers could have students create visual timelines of major events in history or find and/or create memes that represent major historical figures. Math teachers could have students transmediate word problems into visual problems to provide another way to solve math equations. I firmly believe the possibilities are endless!

Accessing and understanding these multiple modes of meaning is the goal of any literacy teacher, whether they be a literacy professor or a K-12 teacher. Transmediation can aid in this different way of meaning-making (Carey, 2012) and this different way of expression (Cappello, 2019) as the multimodal opportunities inherent in transmediation allow for knowledge and understanding to be shared that might not have otherwise been possible (Marlatt, 2019). New knowledge and understanding are indeed crucial, but so is the element of showing preservice teachers, and subsequently their future students, the importance of moving beyond just the written text (McCormick, 2011).

## References

- Barrow, L. H. (2006). A brief history of inquiry: From Dewey to standards. *Journal of Science Teacher Education, 17*(3), 265-278.
- Batchelor, K. (2015). Digital transmediation and revision. *Voices from the Middle, 23*(2), 69.
- Cappello, M. (2019). Reflections of Identity in Multimodal Projects: Teacher Education in the Pacific. *Issues in Teacher Education, 28*(1), 6-20.
- Carey, A. E. (2012). Transmediation and the transparent eye-ball: Approaching literature through different ways of knowing. *Language Arts Journal of Michigan, 28*(1), 5.
- Griffith, J. (2019). Visual Mentor Texts: Teaching Middle School Writers with Graphic Novels. *Voices From the Middle, 26*(4), 64-66.
- Leeuwen, T. V. (2011). Multimodality and multimodal research. *The SAGE handbook of visual research methods* (S. 549–569). Los Angeles: Sage.
- Marlatt, R. (2019). This Is My Story: Preservice English Teachers Create Welcome Videos to Navigate the Places and Spaces of Their Literacy Lives. *Contemporary Issues in Technology and Teacher Education, 19*(2), 129-155.
- McCormick, J. (2011). Transmediation in the language arts classroom: Creating contexts for analysis and ambiguity. *Journal of Adolescent & Adult Literacy, 54*(8), 579-587.

- Miles, M. B., & Huberman, A. M. (1984), Saldana, (2014). Qualitative data analysis: A methods sourcebook. *Qualitative Data Analysis: A Methods Sourcebook*, 275-322.
- Mills, K. (2011). 'I'm Making it Different to the Book': Transmediation in Young Children's Multimodal and Digital Texts. *Australasian Journal of Early Childhood*, 36(3), 56-65.
- NCTE (2018). Beliefs for integrating technology into the English Language Arts classroom. Retrieved from <http://www2.ncte.org/statement/beliefs-technology-preparation-english-teachers/>.
- Serafini, F. (2014). *Reading the visual: An introduction to teaching multimodal literacy*. Teachers College Press.
- Siegel, M. (1995). More than words: The generative power of transmediation for learning. *Canadian Journal of Education/Revue canadienne de l'education*, 455-475.
- Walsh, M. (2009). Worlds have collided and modes have merged: Classroom evidence of changed literacy practices. *Literacy*, 42(2), 101-108.

## Appendix A: Interview Questions

- How would you describe transmediation in your own words?
- What did you learn about transmediation?
- What choices did you make in your presentation to create your transmediation aspect?
- Why did you make the choices that you did?
- How did the transmediation process (switching modes) impact your understanding of the topic you presented for your inquiry project?
- How might you use transmediation in your future classroom?
- How have your views on literacy changed after experiencing the inquiry process and transmediation?