Document generated on 04/26/2024 8:43 p.m.

Language and Literacy
Langue et littératie

“Staring Down a Charging Bull”: Reconceptualizing Content and Disciplinary Literacy through Transmediation

Terry Loerts

Volume 24, Number 1, 2022

Literacy Entanglements and Relationality, Time, Place, Space and Identity

URI: https://id.erudit.org/iderudit/1090949ar
DOI: https://doi.org/10.20360/langandlit29624

See table of contents

Publisher(s)

Language and Literacy Researchers of Canada

ISSN

1496-0974 (digital)

Explore this journal

Cite this article

Loerts, T. (2022). “Staring Down a Charging Bull”: Reconceptualizing Content and Disciplinary Literacy through Transmediation. *Language and Literacy / Langue et littératie*, *24*(1), 60–79. https://doi.org/10.20360/langandlit29624

Article abstract

This paper illustrates the findings from year three of a five-year research project where participants were asked to multimodally re-conceptualize their understandings about content and disciplinary literacy practices from a mandatory Bachelor of Education literacy course. Data collection includes transcribed interviews, professor feedback, in-class conversations with peers, multimodal artefacts, and participant notes taken during a gallery walk. Findings show that life experiences, transmediation processes, peer group sharing, and facility with modes and media contributed to deep understanding about multiliteracies practices, course content, and assessment techniques. Findings reveal that learning opportunities transcend disciplines, space, and time while enriching identity formation.

© Terry Loerts, 2022

This document is protected by copyright law. Use of the services of Érudit (including reproduction) is subject to its terms and conditions, which can be viewed online.

https://apropos.erudit.org/en/users/policy-on-use/

This article is disseminated and preserved by Érudit.

Érudit is a non-profit inter-university consortium of the Université de Montréal, Université Laval, and the Université du Québec à Montréal. Its mission is to promote and disseminate research.

https://www.erudit.org/en/

"STARING DOWN A CHARGING BULL": RECONCEPTUALIZING CONTENT AND DISCIPLINARY LITERACY THROUGH TRANSMEDIATION

TERRY LOERTS
School of Education, Redeemer University
Ontario, Canada

Abstract

This paper illustrates the findings from year three of a five-year research project where participants were asked to multimodally re-conceptualize their understandings about content and disciplinary literacy practices from a mandatory Bachelor of Education literacy course. Data collection includes transcribed interviews, professor feedback, in-class conversations with peers, multimodal artefacts, and participant notes taken during a gallery walk. Findings show that life experiences, transmediation processes, peer group sharing, and facility with modes and media contributed to deep understanding about multiliteracies practices, course content, and assessment techniques. Findings reveal that learning opportunities transcend disciplines, space, and time while enriching identity formation.

Introduction

As I was creating this, my own understanding of content area literacy and subsequently disciplinary literacy improved. I was able to visualize and then contextualize it for myself to see how I have unknowingly used both in previous teaching situations without ever realizing it or the benefits to it.
(Participant "Louis")

This quote expresses the heart of this research project where participants found valuable learning opportunities creating multimodal texts. Participants became active designers of meaning while learning about course content in a Bachelor of Education program, specifically about disciplinary literacy and content area literacy. This research answers two questions: 1) how did the process of creating multimodal visual journals enhance understanding of multiliteracies? and, 2) how did this process of doing multimodal visual journals help or hinder your understanding of content area literacy and disciplinary literacy? The rationale for this study was to elucidate understandings of multiliteracies practice as nested in the broader literacy curriculum in the Ontario context. The study also aimed to support teacher candidates as they envisioned how they could apply these understandings about literacy to the students they will one day teach. The learning experiences aimed to transcend disciplines, space, and time while enriching identity formation. Did this process sometimes feel like "staring down a charging bull" (Participant "Beth")? At times. Did the possibilities outweigh the constraints? As you will see from the data that will be presented, the answer to that question is: absolutely.

Literature Review

Traditional literacies within education have been linguistically grounded. The focus on reading and writing skills, while valuable, both "marginalize" (Moses & Reid, 2021, p.1) and perpetuate "assumptions … [of] the right kind of literacies" (McTavish, 2014, p. 339) needed to succeed. While the landscape of literacy practices has changed to include multiliteracies, higher education has not promoted this as abundantly, especially from a pedagogical point of view. It is even more critical for teacher candidates to be exposed to, work with, critically evaluate, and create multimodal texts such as visual journals. They will be expected to comprehend an ever-evolving understanding of literacy alongside with meaningful pedagogy that involves both online and offline practices (Laidlaw et al., 2021; Moses & Reid, 2021; Nagy, 2020; Yoon, 2020). This literacy, according to the Ontario Ministry of Education (2013) is "multimodal" (p. 2), builds on "prior knowledge and culture" (p. 3), is "rich and varied" (p. 3), and utilizes all six dimensions of language (reading, writing, listening, speaking, viewing, and representing). Without explicit instruction in multimodal pedagogy, teacher candidates' "meaning potential might remain lopsided, and the educational affordances of the resources untapped" (Nagy, 2020, p. 167). Today, more than ever, those resources are more readily available online and globally connected. As such, multimodal learning "expands the possibilities for considering what counts as literacy" (Moses & Reid, 2021, p. 5). What counts, according to Kress and van Leeuwen (2021) is more than just the prevalence of print that still permeates educational circles – multiliteracies has enormous potential across disciplines. Working with modes and media both on and offline, developing facility with them, understanding their affordances, and recognizing transmediation as "generative potential" (Siegel, 1995, p. 456) is "integral to meaning and learning" (Kalantzis & Cope, 2022, para 38), especially within the context of higher education.

When looking at the research literature and the variety of multiliteracies applications from visual literacy instruction using multiple modes and media, to art journaling among lower grade levels and subject areas (Cruz & Ellerbrock, 2015; Williams, 2019), valuable learning opportunities can be applied to higher education contexts. This research adds important understandings to fill in those gaps. Working with multimodal texts like visual journals can improve comprehension (Kędra & Žakevičiūtė, 2019), provide opportunities for critical reflection (Loerts & Belcher, 2019; La Jevic & Springgay, 2008), help with learning the metalanguage of multiliteracies (Serafini, 2017), and connect with diversity and cultural knowledge (Kalin et al., 2007; Kleinfeld, 2019). It can also assist in meaning making while enhancing memory (Kędra & Žakevičiūtė, 2019) and promote deeper text engagement through transmediation (Kleinfeld, 2019). With so many possibilities, it is pragmatic to apply multiliteracies pedagogy and practice within higher education and across disciplines. This current research shows many of the above benefits as shown by the participants who created multimodal visual journal artefacts to learn course content about disciplinary literacy and content area literacy (henceforth referred to as DL and CAL).

Background to Disciplinary Literacy and Content Area Literacy

To contextualize the course content that served as a backdrop to this study, I will briefly summarize what the teacher candidates in their literacy course were learning about DL and CAL. One of the first things that candidates did was do some research to define DL and CAL. In brief, DL is comprised of specific literacy skills that will help students learn the content in discipline-specific ways. For example, in Science, there are discipline specific texts such as research briefs, data, and hypotheses that will require distinctive literacy practices, such as those found in the Ontario Ministry of Education's (2022) *Think Literacy Library.* These literacy practices will be different from those in a Math class that deal with symbols and patterns (Lent & Voigt, 2019). In contrast, CAL focuses on literacy skills that can be used to access any type of text in any discipline such as pre-, during-, and post-reading strategies, making predictions, or monitoring comprehension (Vacca et al., 2016).

Candidates in the literacy course did activities to understand the difference between DL and CAL. For example, they looked at lesson plans to figure out which strategies were used, watched videos of DL and CAL practices in classrooms, and considered Ontario Curriculum resources. Teacher candidates were then given the visual journal assignment to multimodally reconceptualize their understandings.

The Visual Journal Assignment

Historically and currently, visual journals in higher education have been used by writers and rooted in Arts-based practices where sketching and collecting ideas help to refine and shape creative applications (La Jevic & Springgay, 2008; Morawski et al., 2016). In this case, I have used the concept of a visual journal as a way for teacher candidates to use both as a reflective process on their learning and as a way of practicing the very modes and media that they will carry with them into the teaching profession. Similar to Kalin (et al., 2007), I see visual journals as a "form of pedagogy that holds generative possibilities … facilitating a more enduring and expansive range of understanding" (p. 203). The goal was to provide multimodal ways for teacher candidates to wrestle with ideas more deeply as they learned course content.

One of the central foci in the literacy course was to understand the nature of literacy. The course encouraged discussion around literacy pedagogy and theory with practical applications. I provided multiple opportunities for teacher candidates to engage in multimodal literacy learning to develop a deeper understanding of course material. Teacher candidates created a previous multimodal visual journal with peer support and professor feedback as they built up knowledge and facility with modes and media. For example, we discussed the affordances of modes and media while we looked at commercials, unpacked Molly Bang's (2016) book: *Picture This: How Pictures Work* to discover how shape, line, and perspective can create meaning, and we discussed the cultural interpretations of colour (e.g., Oleson, 2022). We also worked with modes and media alongside online platforms such as PicLits (n.d.), Pictochart (2022), and Google slides. These served as learning opportunities that could be applied to their multimodal visual journal to develop deeper understandings of DL and CAL practices.

The visual journal assignment consisted of a twofold submission: the visual journal artefact and a written portion with questions to answer about the meaning-making process. For the visual journal, participants were given instructions to create a multimodal artefact based on their understandings of DL, CAL, or both. The syllabus (Loerts, 2018) gave instructions that allowed teacher candidates to pick any variety of modes and media that included sketching, painting, media literacy texts, or music, just to give a few examples. Participants were told that the viewer of their visual journal should be able to create meaning about DL or CAL. The written portion was meant to have teacher candidates reflect on the process of design by explaining: 1) how they came to create their visual journal, 2) how the process of design enhanced their understanding of DL and CAL, 3) the elements of design that they thought they were particularly good at using for communicating and how they did so, and finally they were asked to 4) briefly summarize the main message that a viewer should get when viewing their visual journal. While the guidelines gave some parameters, the visual journal artefacts were more of a critical thinking/problem solving assignment that was "strategically ambiguous" (Bratslavsky et al., 2019, p. 285). This provided authentic opportunities for participants to take their visual journals where they wanted them to go.

This visual journal had gone through a number of revisions since the start of this research in 2016, thanks to ongoing dialogue with teacher candidates about what worked well and what could be improved to enhance their learning experience. Whereas the initial experiences with visual journals had candidates just submit a multimodal artefact (that was supposed to include a combination of words and visuals), subsequent visual journal assignments included written responses to the above questions so that I, as the professor, could see more of their process of design. This honoured the teacher candidates' agency so that they knew I understood their true communicative potentials and understandings through multiple modes. What follows are the findings from year three of a five-year study.

Theoretical Framework

The centrality of multiliteracies for this research is reflected in the dual purpose of this framework. First, multiliteracies recognizes how meaning is made specific to contexts – not just any context, but ones that consider culture, social practices, life experiences, or even social groups. Even as we "live in a period of profound social change" (Kress & van Leeuwen, 2021, p. xviii), we need a growth mindset to reflect on the utility of making meaning as well as the modes and media at our disposal. Secondly, multiliteracies recognizes the multiplicity of modal forms of representation that are used to create meaning (Kress & van Leeuwen, 2021; New London Group, 1996; Cope & Kalantzis, 2009). Pedagogical opportunities at the heart of this framework are ripe for new lenses as we consider how modes and media continue to change in response to global and local needs. Multimodal meaning making opportunities are meant to scaffold, reinvent, and transform knowledge as well as individuals (Loerts & Heydon, 2016; Moses & Reid, 2021; Walsh, 2007). While the term, visual journals, is used in this research, the range of modalities *including* visual modalities were used to give the participants choice in what was most apt for their multimodal ensembles.

Framing the centrality of multiliteracies in this study is a social semiotic approach. Semiotics is the study of signs and symbols, and how they create and communicate meaning. Because signs are product of culture, their meanings are socially situated. Therefore, all of the possible resources that could help us communicate have possibilities and constraints, depending on the affordances of each mode (Kress & van Leeuwen, 2021; Mills, 2011; Zammitt, 2015). As a sign-maker, choosing from modal resources such as writing, music, speech, images, or gestures have equal value, but not always equal potentials, depending on the sign maker's intention for communicating (Jewitt et al., 2016; Pantaleo, 2016). Kress (2008) advocates for the use of multiple modes as resources for making meaning because "attending to the linguistically carried meanings does not give access to the total meaning of the text" (p. 99). For this reason, multimodal texts are the result of decisions made by sign-makers as they consider the affordances of modes, the media and materials that are available, and the "orchestration and ensembles of meaning" (Kress, 2010, p. 159). This is a complex process where practicality of design and creativity of meaning meet.

During the reshaping, remixing, and reframing of resources, decisions are made as to what modes and media are privileged for the best possible meaning to be understood by the text-designer and the text-interpreter. In this process of design, there is "meaning transformation" (Mills, 2011, p. 57) where one "translates meanings from one mode to another" (Zammitt, 2015, p. 1294). Over time, a number of terms have been used to designate this process such as transduction, resemiotization, or transmediation (Mills, 2011; Zammitt, 2015). I use the term transmediation in this paper. In a pedagogy of multiliteracies, the implication for this kind of semiosis is that learners are positioned as agents of design who think deeply and represent their knowledge in multimodal ways. Literacy, therefore, is "not about skills and competence; it is aimed at creating a kind of person, an active designer of meaning with a sensibility open to differences, change, and innovation …. Meaning making is an active, transformative process" (Cope & Kalantzis, 2009, p. 175). This will be seen in the research findings.

Research Methodology

Setting and Participants

All participants were part of a two-year Bachelor of Education program at a university in Ontario. Within this two-year B.Ed. program, all teacher candidates took a mandatory literacy course focused on Intermediate (grade 7-10) literacy. In year three of this five-year study, there were ten teacher candidates enrolled in this course in which the visual journal was one of the mandatory projects that all of them completed. All candidates in this course were invited to participate in this study. Ethical clearance was given for this study and the Informed Consent document was read and questions answered for clarity. There were ten consenting participants who signed the Informed Consent: four females and six males. All teacher candidates who agreed to participate in the study were notified that they could withdraw at any time without penalty. All ten consenting participants continued with the research for the full duration.

Methods and Data Collection

I employed a qualitative descriptive case study approach (Dyson & Genishi, 2005; Stake, 2005) as I looked in-depth at events that unfolded during the creation and dissemination of the participants' visual journal assignment. I use the voices of the participants as much as possible to illuminate the findings. Various sources of data collection ensured greater clarification of findings as triangulation occurred to make the them more trustworthy (Stake, 2005; Yin, 2017). The various data collected included: transcribed interviews that occurred after the course, recorded and transcribed in-class conversations amongst peers during their gallery walk debrief session, participant artefacts (visual journals), professor feedback that was given back to participants, and participant notes taken during the silent part of the gallery walk. All participants were assigned pseudonyms to protect their identity.

Data Analysis

Data was analyzed through the use of a Modified Constant Comparative Method (Handsfield, 2006) where analysis of the data resulted in codes with similar themes. These codes were categorized further until broader themes emerged that answered the research questions: how did the process of creating multimodal visual journals enhance your understanding of multiliteracies? and, how did this process of doing visual journals help or hinder your understanding of CAL and DL? In a Modified Constant Comparative Method (MCCM) of analysis, the modified aspect resulted in recognizing elements of the data that were not part of a group of similarly coded results.

Data analysis occurred in three stages. First, I collected all of the data, including transcribed audio data, and read through them for initial impressions of how each participant answered the research question. I then made a word document with four columns – the first was for each of the data sources, organized according to each participant according to what I considered pertinent information to answer the research questions. I then engaged in holistic coding for the first stage, highlighting participant voices, commenting on aspects of their visual journal, using my assessment feedback notes, and anything that stood out from the participant debrief sessions and gallery walk. In stage one I assigned initial codes and impressions. The subsequent stage refined the stage one codes and impressions into predictive themes. In the third stage of coding, I created overall themes that were organized into the narratives you see below.

Findings: Journeys of Learning

As I reflected on the two research questions posed for this study, it became clear from the process of data dissemination that there were multiple ways in which the process of doing visual journals enhanced the participants' understanding of multiliteracies while solidifying their knowledge of DL and CAL. The four themes that emerged were that multimodal texts related to 1) how participants' life experiences influenced design with modes and media; 2) transmediation; 3) deep learning; and 4) their understandings of assessment practices.

Life Experiences as Influencers of Design:

One of the deciding factors that helped participants decide how to represent their knowledge of DL and CAL was their life experience. At first, some participants were overwhelmed by the open-ended nature of the assignment even though they appreciated it at the same time. Participant "Liam" stated, "I like the openness of it in terms of, you can do whatever you want," while participant "Oliver" said, "I just needed a starting part. That was the toughest part and as I kind of got going then it was kind of more flow." Participants connected ideas with their hobbies, academic major, and moments of inspiration that literally came out of the blue. Oliver mentioned that his idea came to him as he looked out the window after he woke up from a nap. "It was raining and I saw the umbrella and I'm not gonna lie, it just kind of popped into my head." The multiple colours of this rainbow made him think of "how they [strategies] all kind of work together like a framework, and I was like, that kind of reminds me of all the teaching subjects." This served as inspiration for Oliver to represent his subjects with icons such as basketballs and baseballs for Physical Education, and a symbol of Pi for Math, and a periodic table for Science (figure 1). As participants connected with their love of drawing, card games, words of the English language, music, and events such as International Women's Day, these served to inform both the content and form of their visual journals. This echoes Kress' position as stated in Bock (2016) that it is "the sign maker's interest" that is "personal, social, and shaped by their cognitive and affective processes" (p. 18), which resulted in unique and meaningful communication.

Figure 1. Literacy Umbrella from Participant Oliver's Visual Journal

Facility with Modes and Media

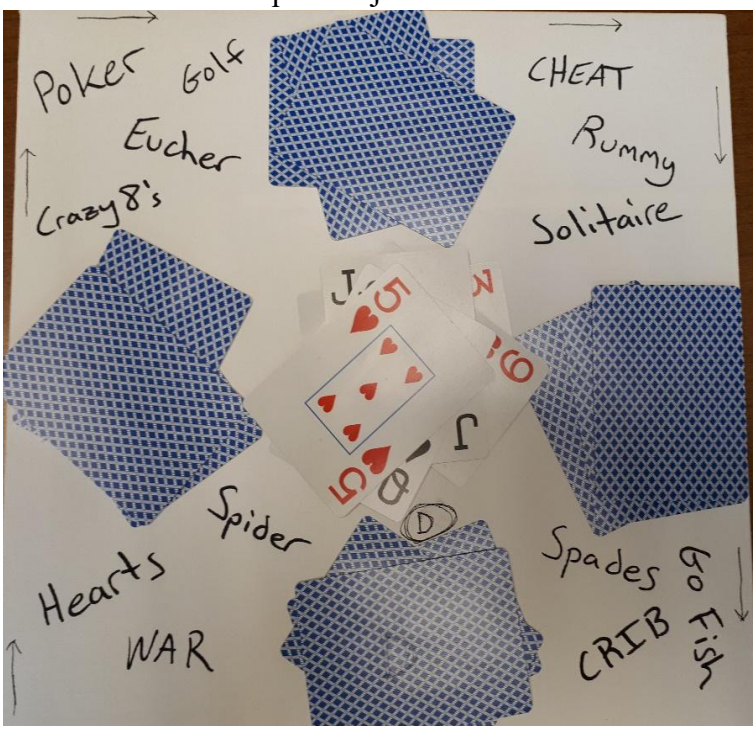
Once participants started their artefacts, their facility with modes and media was revealed in different ways. Data from multiple sources revealed how some participants still relied on written modes to generate their ideas more than any other modes. Participant

"Aisha" expressed that her facility with multimodal composing felt "basic" while participant "Ben" wondered, "How do you really dig deep unless you can attach a little bit of a written thing to it?" Others expressed that they "didn't know how to portray them in a literacy sense" when it came to re-conceptualizing math symbols (participant "Javen"). Their hesitancy to break out of the written mode of communication partially stemmed from their fear of having to be artistic, which participants like Liam equated with visual literacy. At the same time, other participants felt that their facility with modes and media improved as they worked through their process of design. Louis said that not only was he "able to visualize and then contextualize it for myself," he also said that "as I was creating this, my own understanding of CAL and subsequently DL improved."

Another outcome of the participants' facility with modes and media showed in the variety of modes and media displayed through their process of design. Participant "Elijah" noted that "creating this visual journal … did expand my thoughts on how this visual concept would represent content area literacy" (figure 2). His use of playing cards utilized the concepts of perspective, layout, directionality, and how the cards and written elements relate to each other. All were salient points that showed his facility with modes and media. As one of his peers, participant "Riley", said during a debrief session:

> I think Elijah was trying to portray the idea that playing cards requires many different skills, such as shuffling to be able to play many different games. I like that Elijah illustrated many different card games on the canvas, because I am not sure it would have been as clear if he didn't. I like that he displayed the cards and made it visually appealing rather than just handing in a deck of cards.

Figure 2. Various Cards from Participant Elijah's Visual Journal



Available Materials for Design

Some organic materials were used to showcase participants' design choices such as the visual journal example from Oliver (from figure 1). He utilized cardboard, paper, and pencil crayon colours for his umbrella, subject specific icons, words, fishing line, and blue construction paper for the raindrops, and marker for the words on a piece of white Bristol board. Oliver used materials that were readily available in his house to compose this visual journal entry.

Oliver felt that he did a good job with his artefact, as is shown in his write-up from his submission, where he answered the 3rd question on the assignment (What elements of design were you good at using and how did you do so?):

> I believe my visual journal does a good job at portraying content area literacy based on the flow that has been created … When the content area literacy (raindrops) hits the umbrella on a subject, the content area literacy transforms into something that is more specific to the subject and can be disciplinary in nature. The dry area under the umbrella houses all of the disciplinary understandings that are floating on a piece of fishing line. This was done for the purpose of demonstrating that although the student may learn something specific, even this specific language can be transferred and used in conjunction with other subjects. The rain and umbrella are able to communicate my thoughts on content and disciplinary literacy because the rain is so individually unique that each drop is a teaching strategy, which are plentiful. The umbrella itself is a good visual because the subject areas in the classroom are constantly crossing over and touching on one another, something that the umbrella does literally.

This reflection on his learning process was insightful. It also illuminates the fact that design is influenced by what is around you, from the ideas to the materiality of the artefact.

The design process was not only closely linked to participants' life experiences as described above, but also to how they understood representation. Ben's comment of "a sign with a simple visual can be understood by almost anybody," showed how he was thinking of his audience. He wanted the format to be "very simple and accessible." Lastly, the data showed that the oral debrief in small groups after the gallery walk was meaningful because "hearing the explaining … what went into the making process – I think it kind of made it a little more real" (Riley). This finding was especially fitting as participants shared their design process in small groups. It helped to further solidify their understandings about modes and media as well as the differences between DL and CAL in a supportive way. It was another step to help stare down the charging bull!

Articulation of Transmediation

It was in moments of design that participants reconceptualized their understandings of DL and CAL through a process of transmediation (Mills, 2011). In this second finding, the data revealed two perspectives: that of the sign *maker* and that of the sign *interpreter*.

Sign Maker: Percolating Ideas

As mentioned earlier, various activities, including a previous visual journal, promoted a beginning understanding of multiliteracies. In order to recast their ideas from their readings and in-class learnings into different modalities, many of the participants said that they had to sit with ideas and let them percolate. As a sign maker, Liam described his thinking process:

> It's one thing to read an article and say summarize the article, summarize the most important points, right? But whereas a visual, it forces you to key in on a specific spot or a specific idea and it allows you to run with that idea a little bit. So, develop that idea, think about what it means in the broader context of things and eventually it becomes more open … you get so much more out of creating a visual than actually just summarizing a text or talking about a text with group members or something like that.

As the data suggested from other participants, they too went through ideas "multiple times" (Oliver). Some participants had trouble clearly articulating the thought processes involved in recasting ideas from one sign system into another. As Ben stated, his ideas were "sorted in my mind without really thinking about it. I am not entirely sure. You can't create something visual that represents an idea if you don't know what the idea actually is." Therein lies the crux of the matter – it is about figuring out the meaning of what they are trying to understand (in this case DL and CAL) and then representing it multimodally.

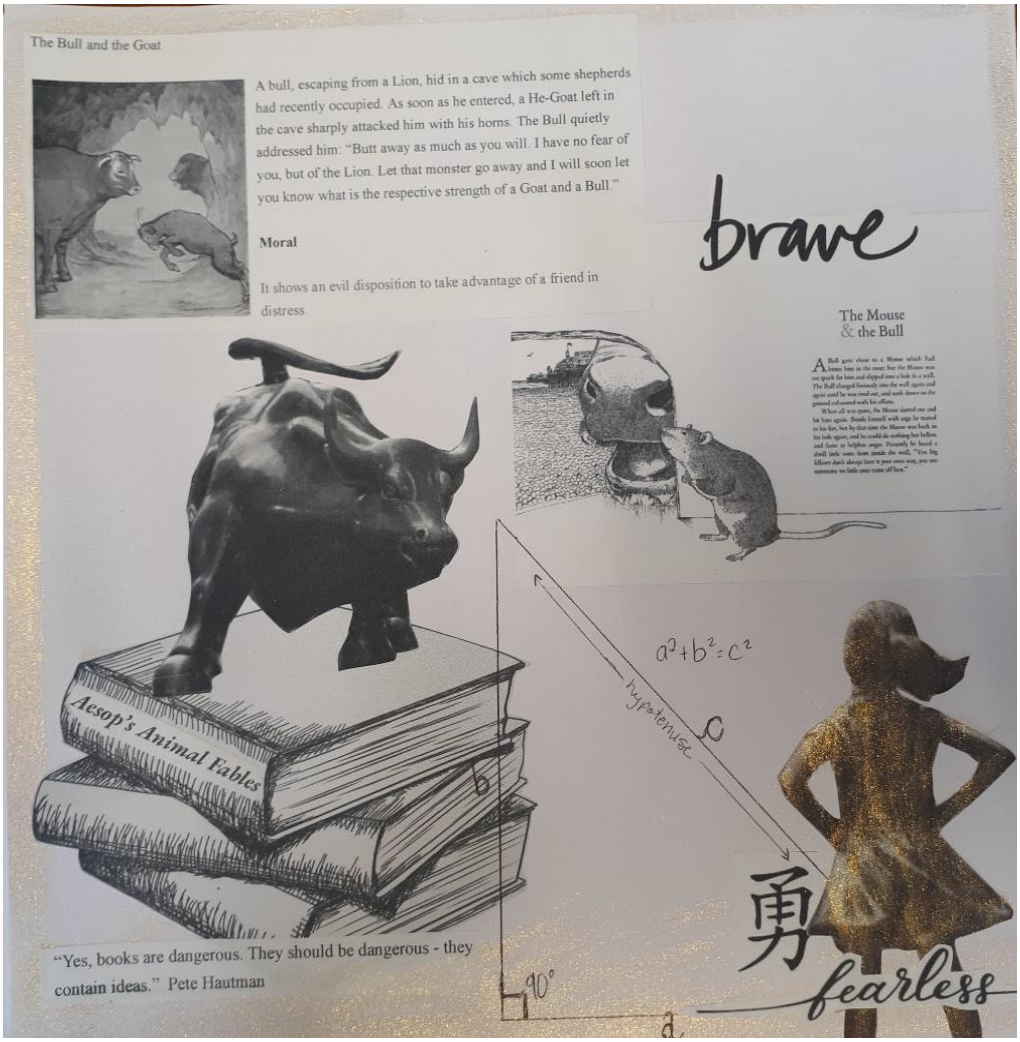
One of the more detailed explanations of how a participant made meaning was done in Beth's visual journal. Not only did she communicate DL and CAL visually (figure 3), the questions that she answered as part of the assignment provided an inside look into her process of transmediation. Originally, she commented that she had "struggled this semester to differentiate between content area and disciplinary literacy." As the data showed, Beth made significant progress.

Beth's first indication that she worked to understand ideas about DL and CAL before representing them in multimodal ways came from her experiences visiting New York and reading about International Women's Day in 2017 from online sources. Beth saw the *Fearless Girl* statue in New York's financial district staring down the *Charging Bull* statue in defiance, which made her think about her own experience with understanding DL and CAL. She admitted that she was the one feeling like she was staring down a charging bull, or as her analogy states, "I am the student staring down a mountain of texts to interpret." This initial reaction helped Beth to consolidate her understandings about CAL; she likened CAL to Delaney (who was inspired to go for an impromptu job interview in New York's financial district after seeing the *Fearless Girl* statue) and how interpreting this statue is about understanding how to apply creative meanings to texts.

From there, Beth described how she used multimodal elements of design to represent CAL. The gold shimmer on the *Fearless Girl* statue represented a triumphant (one symbolic interpretation of the gold) Delaney along with the word "fearless" to "show the multiple interpretations of the text." The Chinese character displayed is the word for courage, which, as Beth stated from her personal travels and studies in China, had the visual

character for "strength" also embedded in it. Beth reconceptualized how the *Fearless Girl* used language skills (including some of Aesop's fables like *The Mouse and the Bull* to learn about intimidation), and math skills (with the exact angle of posture and gaze to stare the bull in the eyes) to make meaning. This process of transmediation is multi-layered from the sense that Beth created personal meaning using her texts from various sources, while she reconceptualized different modalities to make sense of how CAL utilizes skills to make sense of various texts.

Figure 3. Fearless Girl versus Charging Bull from Participant Beth's Visual Journal



Sign Interpreter: Looking Deep

From the transcribed in-class discussions that occurred after the gallery walk, the data revealed that participants made further meaning as they interpreted each other's visual journals. In the first part of the gallery walk, participants walked around the classroom, quietly taking notes on visual journals of their choice. These notes were prompted by reflection questions, namely: Do I understand what is being communicated visually? What

is the main idea about DL or CAL? Do I need more information? Did the medium suit the message? The second part of the gallery walk was a group debrief session where they discussed the questions in addition to each person verbally explaining their own visual journal. They were encouraged to use the metalanguage of multiliteracies as they described the process of design and the modes and media used. What follows is a segment of one group's transcribed conversation.

> Oliver: For me it's authentic in the learning itself because there's so much reiteration of the content that we're trying to learn. So, there's the CAL and the DL – how many times have we said these terms and described what they are and represented them in three different ways, right? I represented one, you did one, Ben did one, and then we saw so many different ones.
>
> Liam: And through the seeing of the other ones it allows you to … further develop that understanding.
>
> Oliver: And then listening, to speak, you get the audio, the visual, the kinesthetic, of actually doing it. It really hits on so many different dimensions like, not just the dimensions of literacy but the way people learn.
>
> Liam: Yeah, yeah, I totally agree with it. It is an authentic learning experience.
>
> Oliver: I did like the openness to it 'cause it's not like we have two of the same thing. Everyone did something a little bit different.
>
> Liam: And it kind of pieces everything together when you look at everyone else's.

These insights about how participants viewed themselves as sign interpreters reveals not only the process of learning, but also how collaboration contributed to further understanding. As Beth noted, "It's like that active listening exercise where you listen and then you kind of restate … like it was clarifying meaning I think." When left to interpret just the visual journal artefacts, there were various levels of affordances and constraints. Some participants were "having to look deeper" (Beth) while others mentioned that they needed the written or oral modes to fully unlock the sign maker's messages.

Other Insights: Sign Interpreter to Sign Maker

Through the coding and eventual development of themes from the data, there was one finding that stood out amongst the broader theme of transmediation which illustrated the *Modified* CCM analysis (Handsfield, 2006). While many participants noted their facility with the written mode to help them reconceptualize DL and CAL understandings in other modes, Liam was the only one who mentioned that the process of doing the visual journal helped him elucidate his written understandings of DL and CAL to the point that he re-did his assignment before handing it in! In a post-course interview with Liam, he mentioned that when he verbalized his process of making meaning in the group debrief,

his peers didn't quite understand his intentions. He mentioned to his peers that he wasn't quite sure himself as the process didn't quite come together as he intended. He stated:

> I didn't really know what direction I was going in, and I think when I sat down and explained it to the group and they actually had questions about it – I think that's when I started to develop my own understanding of it in my head. And it wasn't until I actually verbalized it to someone that it became – that it made sense to me.

In further dialogue with Liam, I asked him to clarify what he did, both during the process of debriefing with peers, and afterwards:

> Professor: OK, but then after you did the visual, you realized it was a different direction and then you had to re-do the write-up. I've never heard anybody say that before.
>
> Liam: Yeah (chuckling).
>
> Professor: But then that added layer of trying to explain it orally to your group …
>
> Liam: Yeah …
>
> Professor: That made it even more clear in your own mind?
>
> Liam: Yeah. Because I hate starting things that I don't know where I'm going with them. I need to have a plan first. Um, so in a way this bothered me but um, I guess it's OK.
>
> Professor: So, was it almost like the process was more meaningful for you to get to the end where you think you finally got it all together, rather than, *OK, I had to do it and hand it in*, and that's all that would've happened? So, you probably learned more through having the sharing experience?
>
> Liam: Yes. Yeah. I would say so. And more about understanding everyone else's too. Which almost, um, I think it was like, you did the second or the third person to go in the sharing in the group and I almost pulled from other people, like, *OK, well that relates to mine this way*, and of course there's a little bit of bending interpretations a little bit from others and then taking them and saying, *OK, well, mine kind of does that too, and this is how I show it*. And it kinda gave me a deeper understanding of content and disciplinary literacy as well.
>
> Professor: Fascinating.
>
> Liam: I can't remember who I was having a conversation with afterward. It could have been my group, but we were saying that the group sharing does actually help not only understand each visual journal, but also understand the whole course. Like

just that twenty minutes of group sharing helped deepen our understandings of content and disciplinary literacy.

As purposeful pedagogy, the data illustrates that these multiple ways of working with course content, including instruction about modal affordances before the process of design, benefit both the sign maker and the sign interpreter for constructing meaning.

Deep Learning, Deep Understanding

The third finding, which is the result of the process of transmediation, is deep learning. In the multiple ways participants engaged in meaning making through all six dimensions of literacy (reading, writing, listening, speaking, viewing, representing), it is clear that the visual journal assignment contributed to deep learning. The following comments illuminate this:

> Riley: Creating this visual journal has enhanced my knowledge of CAL because it has really engrained the idea of different strategies and study skills that can be used to learn from any specific disciplinary or subject specific text.
>
> Liam: I found through music that I was able to develop deeper understandings of written texts.
>
> Aisha: I find there's a particular flow to it all – from the visual journal, to the reflection, even to how you describe it …. you're representing, which is probably one of the deepest ways of understanding, I think.
>
> Oliver: The representation was significantly important because you're tying in all the different dimensions and it's kind of like a higher order thinking.

Most participants appreciated the "reflective process" (Beth) that this assignment fostered. Engagement with multiple modes of learning, the six dimensions of literacy, and the enjoyment of seeing what their peers had created affirmed participants' resourcefulness. Many participants connected their visual journal ideas with disciplinary areas such as Math, English or Music. Beth loved the assignment so much that she created a visual journal assignment on the book, *The Boy in the Striped Pajamas* (Boyne, 2006), with her grade eight students when she went on practicum. Transformed practice indeed!

Assessment

The fourth finding was one that the participants clearly found important – not only for the sake of the course outcomes with this assignment, but also as a learning opportunity to speak to the assignment parameters. As a professor, I found this to be essential – not only for transparency and clarification of expectations for the course, but also as a way to be responsive to teacher candidates.

Participants overwhelmingly generated positive comments about the assessment of this assignment. Despite some original concerns about how creative they needed to be, they

appreciated that "the whole process was very fair" (Oliver). The data revealed that participants appreciated the written portion to the assignment. As participant "Zahra" stated, "It is hard to assess based only on the drawing." Both Elijah and Louis noted that there needed to be a match between the visual and the explanation which would determine how well the assignment criteria were done. From the description of the assignment, I had asked participants to describe their elements of design and how they communicated meaning (question 3) and to describe the main message for the reader of the visual text (question 4). For myself as a sign-interpreter, this was critical to make sure that I didn't miss their intended meaning.

One item of note from the participants concerned the layers of meaning. I did a holistic assessment and gave written feedback on their process of design, the multimodal elements of their visual journal, and how well they matched their visual journal with the intended meaning through their required written reflection. Participants wondered if I should have made the layers more overt so that it could separate those who put in more effort to create deeper understanding from those who didn't. This idea spoke to the investment participants made in the process of learning. It also showed their willingness to support future candidates by making the assignments' learning goals more tangible. Finally, it also helped me to use the findings from the data to effect change.

Implications

As the data illustrates, participants in this research showed an enhanced understanding of multiliteracies enactment and a clearer understanding of DL and CAL as they participated as designers of meaning. The themes illuminate the possibilities of creating and interpreting multimodal texts within higher educational contexts to promote deep learning of course content. Gone should be the days where only print is privileged, but in higher education, many assignments still do so (Kleinfeld, 2019). In light of the current educational climate, there really is no turning back. Multiple modes and media, especially facilitated by online learning through the 2020-2021 school year (and beyond) due to the pandemic, needs to be fostered. We need to acknowledge and apply the diversity of modes, media, student identities, perspectives, and learning preferences and "embrace it as an affordance of composing in the twenty-first century" (Kleinfeld, 2019, p. 41). After all, modes are seen as equally important in a pedagogy of multiliteracies. They are just "differently resourceful" (Jewitt et al., 2016, p. 23). It is also important for teacher candidates to work with and design multimodal texts for the purpose of developing their own expertise with literacy practices for their future students. The Ontario Ministry of Education (2013) advocates that teachers encourage "all learners in exploring and making sense of a multimodal, multimedia world" (p. 4) while they participate in "creative and critical thinking [to become] … responsible communicators, consumers and creators of text, [and] develop and refine the capacity to create and share texts of all types" (p. 4). This takes purposeful planning.

What this research contributes to the broader educational community is the knowledge that it is possible to expand communicational options for students in higher educational settings and across disciplines (Palsa & Mertala, 2020; Strickland, 2019). From

a pedagogical perspective, there are certain points to consider in the application of multimodal texts. Firstly, educators need to develop and explicitly teach about the affordances of modes and the metalanguage used to analyze and create visual journals and other multimodal texts (Serafini, 2017; Zhang & O'Halloran, 2019). Simply using multimodal texts does not equate understanding them in meaningful ways to promote deep learning (Hollman, 2014). Secondly, while this point is not the focus of this paper, multiliteracies pedagogy as a construct can be a guideline in helping educators understand how to situate themselves in a process of learning with their own students, in any discipline. The original pedagogical frames (New London Group, 1996) consist of situated practice, overt instruction, critical framing, and transformed practice. These have been more recently conceptualized to reflect twenty-first century competencies such as experiencing, conceptualizing, analyzing, and applying (Cope & Kalantzis, 2009; Kalantzis & Cope, 2022). Thirdly, from the findings of this study and the ongoing nature of this research that has spanned five years, I personally would recommend starting small, building up your repertoire of ideas and pedagogy, and having courageous curriculum conversations (Routman, 2000) with your students about what works, what doesn't work, and what could be improved. As Little (2015) advocates, it is a "long-term part of your teaching practice" (p. 89). In addition, it is an assessment *for* learning opportunity for educators to improve their craft while being responsive to changing curriculum, online teaching, being inclusive, and authentically engaging.

To summarize why the use of visual journals in higher education is a valuable endeavor for learning course content in multimodal ways, I give a list of reasons advocating its use as found in this research, while leaving a couple of lasting impressions from participant voices. Deeper text engagement is an obvious outcome of visual journals, as expressed by Oliver:

> The representation was significantly important because you're tying in all the different dimensions and it's kind of like a higher order of thinking. And obviously it's really important to get students to think a little bit deeper. If they're engaged in what they're doing *and* they have to represent - it's almost like a double whammy.

Visual journals also support metalanguage use (Serafini, 2017), Universal Design for Learning (Rice & Dunn, 2020), and serves as an "assessment tool for metacognitive awareness" (Strickland, 2019, para. 2). Working with multimodal texts is educationally "relevant" (Kleinfeld, 2019, p. 40) and empowering for students as seen in Oliver's statement: "representing something was very powerful." In addition, visual journals promote critical thinking and deeper understanding (Kędra & Žakevičiūtė, 2019).

Moving Forward

As mentioned in the beginning of this paper, this was a snapshot of a larger study on the use of multiliteracies pedagogy to learn course content about DL and CAL. The practice of the visual journal has been a continuing journey for me as a professor as I welcomed feedback from teacher candidates. Moving forward through the next years of the data will show how I continue improving the assessment piece based on the feedback

presented in this paper about encouraging more *layers* of meaning. I realize that this is a window into multiliteracies practices within a teacher education program, but the findings can be transferable to other situations as pedagogical implications reach beyond the scope of this research to other grades and disciplines. In an era of change and shifting literacy practices, it is essential to connect with students on a personal, cultural, global, and pedagogical level for essential learning to occur. While the global pandemic has created new learning opportunities that are very technology based, this research shows that what is most valuable about the learning experience is just that – the learning *experience*. "Not everything needs to be tech based" (Wong, et al., 2021, p. 57). It is worth the effort, as affirmed by Liam who stated, "I think that it's a wonderful assignment 'cause it just – it develops your understanding really, really deeply. It was better than I ever had in university."

References

Bang, M. (2016). *Picture this* (25th anniversary edition). Chronicle Books.

Bock, Z. (2016). Multimodality, creativity and children's meaning-making: Drawings, writings, imaginings. *Stellenbosch Paper in Linguistics Plus, 49*, 1-21. https://10.5842/49-0-669

Boyne, J. (2006). *The boy in the striped pajamas*. David Fickling Books.

Bratslavsky, L., Wright, A., Kritselis, A., & Luftig, D. (2019). The strategically ambiguous assignment: An approach to promoting critical and creative thinking in visual communication. *Journal of Visual Literacy, 38*(4), 285-304. https://doi.org/10.1080/1051144X.2019.1673999

Cope, B., & Kalantzis, M. (2009). "Multiliteracies": New literacies, new learning. *Pedagogies: An International Journal, 4*, 164-195. https://doi.org/10.1080/15544800903076044

Cruz, B., & Ellerbrock, C. (2015). Developing visual literacy: Historical and manipulated photography in the Social Studies classroom. *The Social Studies, 106*, 274-280. https://doi.org/10.1080/00377996.2015.1083932

Dyson, A. H., Genishi, C., & National Conference on Research in Language and Literacy. (2005). *On the case*. Teachers College Press.

Handsfield, L. (2006). Being and becoming American: Triangulating habitus, field, and literacy instruction in a multilingual classroom. *Language & Literacy, 8,* 1–26. https://doi.org/10.20360/G24S45

Hollman, V. (2014). Promoting visual literacy among undergraduate students in Geography: Teaching a visualized Latin America. *Journal of Geography in Higher Education, 38,* 136–147. https://doi.org/10.1080/03098265.2013.836626

Jewitt, C., Bezemer, J., & O'Halloran, K. (2016). *Introducing multimodality*. Routledge.

Kalantzis, M., & Cope, W. (2022). Kalantzis and Cope on new media literacies. *New Learning Online*. https://newlearningonline.com/literacies/chapter-2/kalantzis-and-cope-on-new-media-literacies

Kalin, N., Grauer, K., Baird, J., & Meszaros, C. (2007). Provoking points of convergence: Museum and university collaborating and co-evolving. *Jade, 26*(2), 199-205. https://doi.org/10.1111/j.1476-8070.2007.00529.x

Kędra, J., & Žakevičiūtė, R. (2019). Visual literacy practices in higher education: What, why and how? *Journal of Visual Literacy, 38*(1-2), 1-7. https://doi.org/10.1080/1051144X.2019.1580438

Kleinfeld, E. (2019). Reimagining multimodality through UDL: Inclusivity and accessibility. In S. Khadka & J.C. Lee (Eds.), *Bridging the multimodal gap: From theory to practice*. (pp. 30-42). Utah State University Press.

Kress, G. (2008). "Literacy" in a multimodal environment of communication. In J. Flood, S. B. Heath, & D. Lapp (Eds.), *Handbook of research on teaching literacy through the communicative and visual arts* (pp. 91-100). Routledge.

Kress, G. (2010). *Multimodality: A social semiotic approach to contemporary communication*. Routledge.

Kress, G., & van Leeuwen, T. (2021). *Reading images: The grammar of visual design* (3rd ed.). Routledge.

Laidlaw, L., Wong, S., & O'Mara, J. (2021). Reimagining literacy: Being literate in the pandemic era. *Language and Literacy, 23*(2), 1-2. https://doi.org/10.20360/langandlit29562

La Jevic, L., & Springgay, S. (2008). A/r/tography as an ethics of embodiment: Visual journals in preservice education. *Qualitative Inquiry, 14*(1), 67-89. https://doi.org/10.1177/1077800407304509

Lent, R.C., & Voigt, M.M. (2019). *Disciplinary literacy in action: How to create and sustain a school-wide culture of deep reading, writing, and thinking*. Corwin.

Little, D. (2015). Teaching visual literacy across the curriculum: Suggestions and strategies. *New Directions for Teaching and Learning, 141*. 87-90. https://doi.org/10.1002/tl.20125

Loerts, T. (2018). *Engaging literacy in the intermediate grades* [Syllabus]. Department of Education, Redeemer University, Ancaster, ON. Microsoft Word File.

Loerts, T., & Belcher, C. (2019). Developing visual literacy competencies while learning course content through visual journaling: Teacher candidate perspectives. *Journal of Visual Literacy*. https://doi.org/10.1080/1051144X.2018.1564603

Loerts, T., & Heydon, R. (2016). Multimodal literacy learning opportunities within a grade six classroom literacy curriculum: Constraints and enablers. *Education 3-13: International Journal of Primary, Elementary and Early Years Education*, 1-14. https://doi.org/10.1080/03004279.2016.1139608

McTavish, M. (2014). "I'll do it my own way!": A young child's appropriation and recontextualization of school literacy practices in out-of-school spaces. *Journal of Early Childhood Literacy, 14(3)*, 319-344. https://doi.org/10.1177/1468798413494919

Mills, K. (2011). 'I'm making it different to the book': Transmediation in young children's multimodal and digital texts. *Australian Journal of Early Childhood, 36*(3), 56-65. https://doi.org/10.1177/183693911103600308

Morawski, C., Rottmann, J., Afrakomah, E., Balatti, E., Christens, M., & Kellar, L. (2016). Journaling the art of teaching: Multimodal responding for narrative inquiry. *Australian Journal of Teacher Education, 41,* 155–174. http://dx.doi.org/10.14221/ajte.2016v41n1.9

Moses, L., & Reid, S. (2021). Supporting literacy and positive identity negotiations with multimodal comic composing. *Language and Literacy, 23*(1), 1-24. https://doi.org/10.20360/langandlit29502

Nagy, N. (2020). Multimodal literacy development in a higher education English studies classroom. *Journal of Visual Literacy, 39* (3-4), 167-184. https://doi.org/10.1080/1051144X.2020.1826218

New London Group (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review, 66*(1), 60-92. https://doi.org/10.17763/haer.66.1.17370n67v22j160u

Oleson, J. (2022). *Colour meanings: The power and symbolism of colours.* Mediavine. https://www.color-meanings.com/

Ontario Ministry of Education (2013). *Paying attention to literacy: Six foundational principles for improvement in Literacy, K-12*. Queen's Printer for Ontario.

Ontario Ministry of Education (2022). *Think Literacy Library*. Teachers: Student Success/Learning to 18. http://www.edu.gov.on.ca/eng/teachers/studentsuccess/think.html

Panteleo, S. (2016). Primary students' understanding and appreciation of the artwork in picture books. *Journal of Early Childhood Literacy, 16*(2), 228-255. https://doi.org/10.1177/1468798415569816

Palsa, L., & Mertala, P. (2020). Disciplinary contextualization of transversal competence in Finnish local curricula: The case of multiliteracy, mathematics, and social studies. *Education Inquiry*, 1-22. https://doi.org/10.1080/20004508.2020.1855827

PicLits (n.d.) https://piclits.com/

Pictochart (2022). https://piktochart.com/formats/infographics/

Rice, M., & Dunn, M. (2020). Supporting children's writing in inclusive classrooms with arts-based strategies. *Teaching Exceptional Children, 52*(3), 148-156. https://10.1177/0040059919892833

Routman, R. (2000). *Conversations: Strategies for teaching, learning, and evaluating.* Heinemann.

Serafini, F. (2017). Visual Literacy. *Oxford Research Encyclopedia of Education*. 1-30. https://10.1093/acrefore/9780190264093.013.19

Siegel, M. (1995). More than words: The generative power of transmediation for learning. *Canadian Journal of Education, 20*(4), 455-475. https://doi.org/10.2307/1495082

Stake, R. (2005). Qualitative case studies. In N.K. Denzin & Y.S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (3rd ed., pp. 442-467). Sage Publication.

Strickland, C. (2019, February 19). Creatively communicating metacognition and meaning making: The art of visual journaling for learning. *Redesign.* https://www.redesignu.org/creatively-communicating-metacognition-and-meaning-making-art-visual-journaling-learning/

Vacca, R., Vacca, J., & Mraz, M. (2016). *Content area reading: Literacy and learning across the curriculum*. Pearson.

Walsh, C. (2007). Creativity as capital in the literacy classroom: Youth as multimodal designers. *Literacy, 41*(2), 79-85. https://doi.org/10.1111/j.1467-9345.2007.00461.x

Williams, W. (2019). Attending to the *visual* aspects of visual storytelling: Using art and design concepts to interpret and compose narratives with images. *Journal of Visual Literacy, 38*(1-2), 66-82. 10.1080/1051144X.2019.1569832?journalCode=rjvl20

Wong, S., Laidlaw, L., & Liu, Y. (2021). Reimagining professional development for digital literacies: Old, new and pandemic. *Language and Literacy, 23*(2), 49-59. https://doi.org/10.20360/langandlit29563

Yin, R. K. (2017). *Applications of case study research* (6th ed.). Sage Publications.

Yoon, B. (2020). The global pandemic as learning opportunities around the world: Extending school curriculum. *Middle Grades Review, 6*(2), 1-7. https://scholarworks.uvm.edu/mgreview/vol6/iss2/7

Zammit, K. (2015). Extending students' semiotic understandings: Learning about and creating multimodal texts. In P. Trifonas (Ed.), *International handbook of semiotics* (pp. 1291-1308). Springer.

Zhang, Y., & O'Halloran, K. (2019). Empowering the point: Pains and gains of a writer's traversals between print-based writing and multimodal composing. *Linguistics and Education, 51*, 1-11. https://doi.org/10.1016/J.LINGED.2019.04.003

Author Biography

Terry Loerts is an Associate Professor in the School of Education at Redeemer University. She teaches courses on curriculum, literacy, multiliteracies, and the Arts across the curriculum. Her research interests revolve around curriculum, pedagogy, worldview, as well as literacy from grade school through higher education. She is also Practicum Supervisor in the Teacher Education program. Previously, Terry has worked as an elementary school teacher.