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Visual Literacy and Reflective Visual Journals

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Abstract

This paper explores the contribution of reflective visual journals to our understanding of visual literacy. The discussion is based on a phenomenographic analysis of 232 reflective visual journal entries and a thematic analysis of nine interviews with student participants in an undergraduate visual culture class. Reflective visual journals require students to reflect on, analyze, and produce their own images in response to their learning about visual culture. The paper calls for a systematic study of visual reflection as a visual literacy experience. It discusses "concept re-enactment," a visual reflective practice that results in the performance of a concept or an argument. This practice complicates our assessment of visual literacy skills as concept re-enactment is not fully captured by students' visual production. This study, therefore, argues that concept re-enactment reveals visual literacy as a multidimensional experience involving practices that are neither fully "visual" nor captured by the notion of visual competence.

Keywords: Visual reflection, reflective visual journals, visual skills, visual competencies, concept re-enactment

Introduction

For nearly 50 years, the definition of visual literacy has been contested ground, dominated by discussions of visual competencies, abilities, and skills. Fransecky and Debes (1972) laid the foundation of future scholarship by defining visual literacy as "a group of vision competencies" that "when developed, enable a visually literate person to discriminate and interpret the visual actions, objects, and/or symbols, natural or man-made" (p. 9). More recently, the Association of College and Research Libraries (2011) defined visual literacy as "a set of abilities that enables an individual to effectively interpret, evaluate, use and create images and visual media" (para. 2). Contemporary discussions of visual literacy have challenged the original emphasis on abilities and skills to focus on practices that promote enhanced representation, diversity, and inclusion (Thompson & Beene, 2020). For instance, Serafini (2014) defines visual literacy as "a contextually grounded array of social practices enacted in particular settings for particular purposes" (p. 20). As Serafini (2014) contends, this is a shift from a view of visual literacy as a set of abilities that individuals acquire to a focus on what individuals do (p. 19). While this focus on practices certainly enriches the discussion of visual literacy, this paper proposes visual literacy practices as constituting a learning experience.

In a comprehensive review of definitions of visual literacy, Kędra (2018) identified three main groups of visual skills discussed in the literature: visual reading skills, visual writing skills, and "other" visual literacy skills (p. 74). The first group encompasses a wide range of reading practices such as understanding the grammar of visual language, the interpretation of components of images, the evaluation of visual messages, and the translation of visual messages into verbal language. Visual writing refers to image production for self-expression or visualization of abstract concepts. Finally, under the broad label of "other visual skills," scholars have identified visual thinking and the visualization of concepts as some of the abilities that are not easily captured by visual reading and writing.

Kędra's comprehensive review makes evident the absence of direct references to visual reflection in discussions of visual literacy. Therefore, the goal of this paper is to bring visual reflection to the center of the discussion of visual literacy because it reveals visual literacy as a multidimensional learning experience rather than a set of competencies or skills. This conceptualization of visual literacy as a multidimensional experience is already present in discussions of visual literacy within the field of visual culture, such as Dallow's (2008) definition of visual literacy as a "visual complex," an experience that is "complex, multidimensional, and embedded within a range of visual, cognitive, aesthetic, and nonvisual (emotional, ethical) dimensions" (p. 101). Therefore, to illustrate visual literacy as a multidimensional experience, I will discuss undergraduate students' experience of visual reflection in a visual culture class.

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Visual reflection

Visual reflection is a learning experience that involves reading, writing, thinking, and feeling with and through images. Bertling (2019) defines visual reflection as the use of visual imagery "where subject matter, materials, techniques, and compositional elements can communicate meaning metaphorically" (p. 28). Discussions of visual reflection often approach visual reflection as a pedagogical strategy in art teacher education (Bertling, 2017; Hofsess, 2015; McDermott, 2002). In this context, visual reflection facilitates students' growth as reflective practitioners (Schön, 1991). While significant, these studies conceptualize visual reflection as pedagogical rather than as a visual literacy practice or experience. A noticeable exception is the work of Loerts and Belcher (2019), which explores the development of more complex views of literacy through visual journaling in an undergraduate education program. The study includes semi-structured interviews with teacher candidates who report having experienced a broader sense of literacy through visual journaling.

The Association for Colleges and Research Libraries' *Visual Literacy Standards for Higher Education* (2011) briefly refers to reflection as a desirable learning outcome in the training of visual production. However, like the scholarship on visual reflection in art teacher education, the view that reflection is a strategy to consolidate visual production skills ignores the potential of visual reflection as a visual literacy experience.

Studies on visual reflection rarely examine visual reflection as a means to facilitate visual thinking. Arnheim (1997) defines visual thinking as the process of visualization necessary for thinking. It is a process through which we discover and express the structure and relationships between components that constitute our observed reality. Arnheim's (1997) definition is closely aligned with Dewey's (2007) view of reflection, which he describes as "an act of search or investigation directed towards bringing to light further facts which serve to corroborate or to nullify the suggested belief" (p. 9). Both visual thinking and reflection require the learner to observe and dissect experience to produce new meaning. In the case of visual reflection, the communication of meaning is done through visual means. The discussion of visual reflection as a process in which visual thinking happens allows us to think about visual reflection as a learning experience and not as a set of competencies or skills.

Reflective visual journals

Reflective visual journals combine reflection and visual expression in various media (Loerts & Belcher, 2019). They also promote critical and analytical skills while encouraging the articulation and development of students' voices (Hyland-Russell, 2013). Visual journals provide access to students' lived experiences and perspectives on their own learning (Grenfell, 2013; Sinner, 2011). Researchers also report that students who complete visual journals engage deeper and more holistically with course material even when they are not used to producing images (Deaver & McAuliffe, 2009; Hyland-Russell, 2013).

Visual journaling is a central technique of visual reflection (Bertling, 2019). However, as noted earlier, the discussion of visual journaling experiences rarely focuses on how visual reflection assignments might contribute to the development of visual literacy, even if reflection is assumed to be at the core of visual competencies such as interpretation, evaluation, and decoding. Similarly, discussions on reflection practices in education, including student journals, tend to focus on written reflection and seldom explore the potential effects of visual reading, writing, and thinking on student reflection (Andresen, Boud & Cohen, 1995; Langer, 2002; Mezirow, 1998; Schön, 1991).

This study contends that reflective visual journaling is not solely a pedagogical technique but a space where visual thinking happens. By focusing on 232 reflective journal entries completed by undergraduate students in a visual culture class, this study asks: What do reflective visual journals tell us about undergraduate students' visual literacy experiences? What are the competencies and skills that students mobilize in the production of their reflective visual entries? And more importantly, what can we learn from visual reflection, regarded as a visual literacy experience?

The study of undergraduate visual skills

Since the 2011 ACRL *Visual Literacy Competency Standards for Higher Education*, research on the teaching and learning of visual competencies in higher education has noticeably expanded, constituting most research

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studies in visual literacy (Thompson & Beene, 2020). Many of these studies discuss the impact of students' visual literacy training on areas such as meaning-making (Bowen, 2017; Gadelshina, Cornwell & Spoors, 2019; Thomas, Place & Hillyard, 2008), the development of students' identity (Sakr, 2019), science learning, particularly among biology students (Arneson & Offerdahl, 2017; Wiles, 2016), and the development of professional skills (Bentwich & Gilbey, 2017; Johnston, Parker & Fox, 2017; White, Breslow & Hastings, 2015; Yeh & Cheng, 2009). A common observation in many of these studies is that undergraduate students lack basic visual literacy skills despite being "digital natives" (Prensky, 2001). Students seem to struggle with both visual reading and writing skills (Brumberger, 2011; Metros, 2008). The situation is aggravated by a widespread academic emphasis on visual theory and analysis over undergraduate students' visual production and reflection (Elkins, 2008; Metros & Woolsey, 2006).

While many studies of visual literacy in higher education revolve around the impact of specific pedagogical strategies and artifacts to improve undergraduates' visual literacy skills, only a few prioritize students' perspectives and experiences. This paper highlights students' perspectives by asking:

> What are students' experiences of learning visual literacy through reflective visual journals? How do reflective visual journals contribute to students' learning of visual literacy?

Method

The present study was conducted between Spring 2020 and Winter 2021 in a second-year visual culture class for communication studies majors at a research-intensive university in Western Canada. The course is one of the few dedicated to discussing visual methods and visual culture theory in the program. The majority of students registered in the class are Canadian, in their early twenties, and have little experience in professional communication. The class emphasizes visual reading skills (e.g., image analysis, interpretation) despite the recent introduction of reflective visual journals.

A complete reflective visual journal consists of eight entries; each introduces an image produced by the student in response to a scholarly argument discussed in class and a brief written rationale that discusses the image produced (200-300 words). Students submit four entries on week six and the remaining four entries at the end of the term. Each entry requires students to reflect on a specific topic of visual culture discussed in class, analyze the images they produce for each entry and evaluate the impact of visual reflection on their learning.

An informed consent process occurred at the beginning of the Spring 2020 and Winter 2021 terms. Students were invited to share their reflective visual journal assignments and participate in qualitative interviews with a research assistant. The aggregated and anonymized data comprised 232 reflective visual journal entries and nine semi-structured interviews with students conducted over Zoom. Students were asked about their general experience completing reflective visual journals and their evaluation of the impact of the activity on their learning and the development of visual literacy competencies and skills. Participants were also asked to define visual literacy and visual reflection.

The reflective visual journal entries were analyzed using phenomenography, a method that consists of identifying and describing practices that constitute a collective experience, in this case, reflective visual journaling (Marton, 1981). The phenomenographic analysis consisted of coding learning behaviors as defined by Bloom (1956) (e.g., comprehension, application, analysis, synthesis, evaluation), feelings and emotions, visual production practices, and reflective practices present in students' images and written rationales. The initial coding followed the analysis of potential relationships between the different groups of practices identified (e.g., cognitive, emotional, visual, reflective).

The interview transcripts were analyzed thematically. The analysis involved the identification of surface and latent themes in the verbatim transcripts.

Discussion

Visual reflection as the experience of visual thinking

The thematic analysis of the qualitative interviews with student participants confirmed some of the anecdotal evidence that points to a systematic marginalization of visual literacy in academic education. The central theme that emerges from the transcripts is novelty: students regard reflective visual journals as new

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because they involve image production. This novelty is the reason behind students' initial apprehension and anxiety, feelings which were soon overcome when students discovered that the process of visual reflection facilitated the understanding of abstract concepts:

> It was certainly a new experience, I think it really allowed me at least to engage with a very creative medium […] So I think going with a creative visual journal [,] or reflective visual journal really enabled me personally to engage with the content […] So yeah, I think it created a little stronger understanding [,] I guess.

Reflective visual journaling facilitates understanding by prompting students to visualize abstract concepts and make connections to personal experiences and knowledge:

> When I usually do readings […], I'm writing things down like what's the main argument and like, you know, things like that. But this time around […] I also had to look for different things […] because we have to like [to] make something physical out of it, you know, something that we can see like in the world, you really have to connect it more.

Some students also regard the production of reflective visual journals as facilitating the retention of concepts. This retention is, for many, the result of engaging in practices, such as the visualization and analysis of images, that are unfamiliar and require a more active engagement with the subject matter. In fact, for many of the students interviewed, visual reflection required them to read, think, transfer knowledge, and translate their ideas into visual form. This finding seems to echo Arnheim's (1997) call to reconcile the perceptual and intellectual realms and consider that thinking always involves visualization. In this context, visual reflection is a learning experience that invites students to engage in visual thinking.

The phenomenographic analysis of the reflective visual journal entries confirmed students' views of visual reflection. The visual reflection exercise led to the identification of multiple cognitive practices, such as analysis, evaluation, verbal reflection, visual argumentation, and emotions connected to both the subject matter in the written entry and those triggered by creating their visualizations. The analysis of visual production practices revealed that students could produce independent visual arguments by editing pre-existing images, creating collages, drawing, and taking photographs. However, most entries introduced images that were dependent on a written rationale to communicate an argument. This is not a surprising finding considering that reflective visual journals were new and unfamiliar for most students because they required the visualization of arguments. In sum, the centrality of verbal communication in students' visual reflection entries and their initial uneasiness with visual argumentation and reflection point to a systematic marginalization of visual literacy training in their undergraduate education (Bowen, 2017; Crouch, 2008; Elkins, 2008).

This initial phenomenographic coding of practices did not show any conclusive link between the complexity of students' visual argumentation and reflection and the quality of the visual output. In fact, many of the visual entries in reflective visual journals were not skillful in a conventional sense as they did not show strong drawing or digital composition skills. However, some of these entries visualized deep and sophisticated arguments and reflections. This finding challenges some conventional assumptions about visual production skills, which reduce visual production to craftmanship (Metros, 2008).

The phenomenographic analysis poses the question at this stage: Is a student's visual output the best indicator of visual literacy? And most importantly, can visual literacy be measured purely by evaluating competencies and skills? The lack of evidence of any direct link between the depth and complexity of the visual argumentation or visual reflection, and the quality of the image production, suggests that reflective visual journals may not directly improve visual production or craftmanship in the short term. However, the identification of visual reflective practice and *concept re-enactment* may complicate our understanding of undergraduate visual literacy and the role that visual reflection plays in visual education.

Concept re-enactment

The phenomenographic analysis of visual reflection revealed a practice that is present in just 15 entries out of 232 but that questions the definition of visual literacy as a set of competencies and skills. *Concept re-*

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enactment is an instance of visual reflection in which students engage in visual practices to experience a concept and/or emotion. As shown in Figure 1, the images resulting from *concept re-enactment* vary in quality. In this case, the student is responding to Susan Sontag's (2004) "Regarding the torture of others," first published in *The New York Times Magazine* that denounces the Bush administration's efforts to silence the scandal triggered by the publication of images of the torture of prisoners in the hands of the American military in Abu Ghraib. The figure conveys the student's attempt at digitally recreating a particularly well-known image from the series, which depicts a hooded prisoner balancing on a stool, his arms outstretched.

Figure 1
Example of concept re-enactment (planned)

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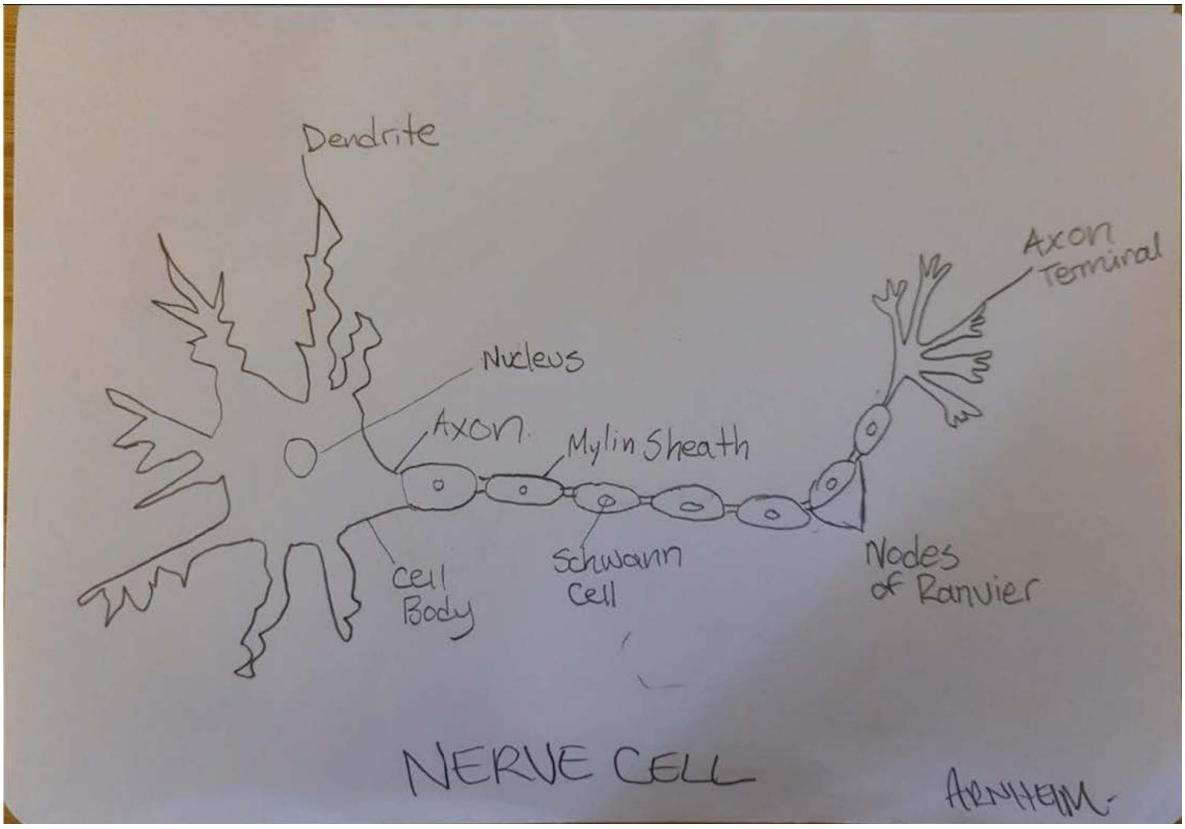
At first sight, the image does not seem particularly well-executed, but the reading of the accompanying text reveals that it is just a trace of a more complex process of visual reflection that happened before and during image production. The student reconstructs the image to experience the act of producing an image of torture and, thus, responds to the journal's prompt for that entry: "What are the ethics of seeing?" The written text also indicates that the reflection was planned as a *concept re-enactment*:

> My experience of creating this image was calming, as I found myself beginning to become more comfortable with my relationship towards the original photograph throughout my experience of appropriating it. This offers a controversial thought that the perpetrator may have begun to separate themselves from the real act through the appropriation of the act through being photographed.

Concept re-enactment is not always planned. In Figure 2, the student engaged in an unplanned performance of Arnheim's principles of visual education: "observing, thinking, and forming" (Arnheim, 1997). Unlike the previous example, there was no explicit discussion of a planned re-enactment, even if the student felt the need to go "through the motions" to respond to Arnheim's argument.

Figure 2
Example of concept re-enactment (spontaneous or unplanned)



The act of drawing a nerve cell allowed the student to perform Arnheim's principles. Nothing in the figure suggests that this is a performance – instead, the image is conventional and shows rudimentary drawing skills. However, the student acknowledges having a better understanding of Arnheim's discussion by drawing this image:

> I mentioned above that the act of drawing this image helps to reinforce the "abstract" learning I have done about the nervous system. It gives context to that knowledge. It also helped me to see what Arnheim was talking about. I felt his ideas on perceiving, thinking, and forming were also a bit

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> abstract, but through going through the motions on making this drawing and reflecting back on [it], I was able to see what he meant.

This spontaneous re-enactment reveals visual reflection as a process that is not fully captured by the characteristics of the student's visual production. The student draws the image responding to Arnheim's (1997) discussion of the importance of visual thinking in science education. Arnheim (1997) highlights the importance of teaching students to observe and illustrate scientific phenomena to foster their understanding and thinking of scientific knowledge and processes, so it is not surprising that the student reproduces a scientific diagram possibly learned in high school. However, this initial connection becomes experiential once the student reflects on the act of drawing the nerve cell:

> When I see, and specially [*sic*] when I draw a nerve cell [,] the different pieces and their purposes become apparent. I can see the nodes of Ranvier, where electrical impulses jump and understand how the nervous system can work so quickly.

Both examples of *concept re-enactment* clarify that visual reflection is multidimensional and involves visual reading, writing, and thinking skills. However, an enumeration of these skills is not sufficient to capture the visual literacy experience facilitated by visual reflection.

An interesting aspect of *concept re-enactment* is the presence of what Adrienne Rich (2021) has called "thinking through the body." This means that when students engage in *concept re-enactment*, they don't just ponder or contemplate but embody concepts. This embodiment of reflection suggests that visual reflection might encourage some students to move beyond Western and patriarchal modes of knowing that privilege objective observation and abstract reasoning to engage with feelings and sensations anchored in the body (Michelson, 1996). For instance, a student responded to a reading that discusses the mediation of photography by taking a selfie and reflecting on the distance between the experience of taking a photo and the feeling of being objectified by it. The student notes:

> I am not used to being both a viewer and a subject of a photo as it's being taken [;] it is a strange form of labour trying to wrangle your own body and surroundings into an acceptable position to take a photo. I spent a lot of time fiddling with the angles of the mirror to get them in the right position to reflect me on both sides. It felt a bit surreal honestly [.] I usually avoid photos because they make me feel self-conscious and can make my anxiety flare up a bit [;] that feeling wasn't as pronounced when I was creating this image since I avoided including my face.

The written entry describes the physical struggle of framing the body before the camera. This experience of physically *laboring* to achieve the desired result enhanced the student's understanding of how technologies of vision shape our bodies and minds. In this context, the visual reflection becomes an opportunity for the student to relive and bring awareness of knowledge that is already "rooted in the body" but may have been untapped until then (Michelson, 1996). In this context, the image does not document but serves as a *trigger* and *trace* of performance.

The analysis of *concept re-enactment* suggests that visual literacy extends beyond the students' ability to read and write visually. When students visually perform a concept, they engage in experiences that require them to produce, analyze, evaluate, feel, and perform with and through images. The practice of *concept re-enactment* also reveals visual literacy as a complex experience that revolves around visual texts but is not limited to them. This practice has direct consequences on assessment, as the focus may have to move beyond what students *do* with images to how students *experience* visual thinking.

Conclusion

The analysis of reflective visual journals and students' views of visual reflection make evident that visual reflection is a powerful learning experience that facilitates students' understanding of abstract concepts by promoting visual thinking. Visual reflection also contributes to students' learning by inviting them to engage with concepts in a more personal and concrete way.

Regarding the potential of visual reflection to improve visual competencies and skills, the data analysis did not yield any clear link between visual reflection and proficient visual reading and writing. This dissociation between the depth and quality of visual reflection and the quality of the images produced suggests that students' visual outputs do not fully capture the experience of visual reflection. There is more

in the experience of visual reflection than the production of images. However, the fact that visual reflection promotes visual thinking and, in some instances, the performance of concepts in visual terms (*concept re-enactment*), indicates that visual reflection enables experiential learning through engagement with visual skills and competencies. Future studies of visual reflection should explore the long-term impact of frequent visual reflection on the development of visual skills.

The fact that visual reflection is a visual literacy experience in which visual texts are not always central invites us to reconsider our assessment of visual literacy focused on visual competencies and visual texts. If visual literacy is something we learn by doing and not only a set of skills, being visually literate should also be measured by the complexity of the practices we engage in and the risks we are willing to take rather than just by the proficiency of our visual reading and writing at a particular moment.

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