Abstract
With the widespread use of digital media as a tool for documentation, creation, preservation, and sharing of audio-visual content, new strategies are required to deal with this type of “data” for research and analysis purposes. This article describes and advances the methodological process of using documentary film as a strategy for qualitative inquiry. Insights are drawn from a multimedia study that explored Inuit-caribou relationships in Labrador, Canada, through the co-production of community-based, research-oriented, participatory documentary film work. Specifically, we outline: 1) the influence of documentary film on supporting the project conceptualization and collaboration with diverse groups of people; 2) the strength of conducting filmed interviews for in-depth data collection, while recognizing how place and activities are intimately connected to participant perspectives; and 3) a new and innovative analytical approach that uses video software to examine qualitative data, keep participants connected to their knowledge, and simultaneously work toward creating high impact storytelling outputs. The flexibility and capacity of documentary film to mobilize knowledge and intentionally create research outputs for specific target audiences is also discussed. Continued and future integration of documentary film into qualitative research is recommended for creatively enhancing our abilities to not only produce strong, rich, and dynamic research outputs, but also simultaneously to explore and communicate diverse knowledges, experiences, and stories.

Keywords
audio-visual methodologies, documentary film, knowledge mobilization, qualitative research, video analysis, video

Introduction
With the emergence of increasingly accessible and affordable digital technology, audio-visual media has unlocked myriad possibilities for the documentation, creation, preservation, and sharing of digital content, data, and information (Franceschelli & Galipò, 2020; Heath et al., 2010; Jewitt, 2012). Subsequently, new choices and opportunities are available for social and health research, including the use of audio-visual media as a strategy for expanding existing, or developing new, innovative analytical and methodological approaches; enhancing data management strategies; and mobilizing research results and knowledge in creative ways (Jewitt, 2011; Rieger et al., 2020). With the successful integration of visual media techniques into social and health research processes, such as PhotoVoice (Castleden et al., 2008; Truchon, 2007), digital storytelling (Cunsolo et al., 2012; Harper et al., 2012), podcasting (Day et al., 2017), and white-board videos (Saini et al., 2019), researchers from a range of disciplines have already demonstrated the power and efficacy of unifying visual media with academic inquiry.

When paired with participatory action research (Jewitt, 2012), community-based and community-led research, and other frameworks that aim to meaningfully engage participants...
in an equitable research process, these types of creative and multimodal approaches provide opportunities to deconstruct power dynamics between researchers and those being researched (Mataira, 2019; Rice et al., 2020; Zemits et al., 2015). Further, visual media projects informed by these collaborative frameworks can support processes for knowledge co-creation, including contributing to group development and co-operation (Benest, 2012; M. Evans & Foster, 2009; Schwab-Cartas & Mitchell, 2014), respect and understanding (Benest, 2012; Burns et al., 2020), and participant empowerment (Bali & Kofinas, 2014; Mataira, 2019).

The integration of video-based media into research processes has great potential for further exploration (Bates, 2015). Allowing researchers to collect audio-visual information that other techniques cannot, “video recording has enabled the expansion of the repertoire of researchers” (Jewitt, 2012, p. 2), and created exciting opportunities for qualitative research (Friend & Caruthers, 2016). For example, video has been used for a range of research purposes, including for participant data sharing and co-learning (Carroll, 2009; Forsyth et al., 2009), exploring power dynamics within the research process (Kindon, 2016), and communicating with audiences beyond academia (Child, 2013; Petrarca & Hughes, 2014).

In particular, there is growing acknowledgment that the audio-visual information collected via video-based media can be “treated as the principle form of data on which insights and findings are based” (Heath et al., 2010, p. 38). Thus, new demands are being placed on procedures for dealing with this type of information for analytical and investigative purposes. Previous literature has discussed various qualitative data analysis and management strategies for video-based media (Knoblauch et al., 2006; Pea, 2006; Pea & Lindgren, 2008; Snell, 2011), such as incorporating video-based media into pre-established qualitative analysis softwares (Bassett, 2011). However, despite the ability of video “to cross the divide between art and data” (Forsyth et al., 2009, p. 215), minimal work has explored strategies that leverage both the investigative and storytelling strengths of video-based media simultaneously.

Video-based media have also been recognized as valuable for Indigenous-led, decolonizing research and, if used appropriately, video-based media have the potential to respect, preserve, and reinforce Indigenous values, customs, and oral histories (Grant & Luxford, 2009; Rice et al., 2020; Tuhwai Smith, 2012). In a study examining different media formats available for communicating Indigenous knowledge, for example, Bonny & Berkes (2008, p. 249) found that “video-based media are perhaps the most effective means for communicating the social context of knowledge shared: a viewer sees the environment, the audience, and the interaction between a speaker and the audience”. Video-based media have also been used as a means of revitalizing and preserving cultural information (Gleghorn, 2013; Wachowich, 2018), strengthening Indigenous identities (Auferheide, 2008; Ginsburg, 1991), expanding cultural and artistic expression (Rangel, 2012), communicating place-based health challenges (Fontaine et al., 2019; Wiebe et al., 2020), building visual communication capacity (Cunsolo Willcox et al., 2012; Gleghorn, 2013; Petrasek MacDonald et al., 2015), narrativizing local struggles against social, political, and environmental injustices (Raheja, 2007; Spiegel et al., 2020), and contributing to broader discussions on Indigenous sovereignty globally (Auferheide, 2008; Raheja, 2007; Rice et al., 2020). Although the integration of video-based media in Indigenous research in strong, approaches for enhancing Indigenous participant engagement in the co-creation of qualitative work concurrently with audio-visual outputs remain relatively under-explored in the literature.

In recent years, documentary film has been gaining traction as an increasingly powerful strategy for research (Brandt et al., 2016; Munro & Bilbrough, 2018; Petrarca & Hughes, 2014). In contrast with other forms of film and video-based media, documentary film has a particular emphasis on creatively recording reality (Auferheide, 2008). Documentary film and video have been used for a range of purposes, including for: ethnographic research (Heath et al., 2010; Margolis & Pauwels, 2011); the observation of social interaction and interpersonal relations (Rosenstein, 2002); cross-cultural research (Messier, 2019; Zemits et al., 2015); a strategy for education (Warmington et al., 2011), and an approach to investigate social issues (Franceschelli & Galipò, 2020; Friend & Caruthers, 2016). Although there are notable disciplinary and technological differences in the terminology related to documentary film and video, the scope of this article considers any kind of moving image (i.e., film or digital video) of any length of time (e.g., from short video to feature-length film). Thus, for the purpose of this article, the terms documentary film and video will be used interchangeably; however, it is important to note that this research only used digital video, and not physical film.

Interestingly, the literature discussing the utility of documentary filmmaking for research has largely focused on the value and role for knowledge mobilization purposes (Bieniek-Tobasco et al., 2019; Petrarca & Hughes, 2014). For example, among Indigenous-related research, documentary film has been successfully used to transfer knowledge on topics such as Indigenous perspectives on climate change (Cruikshank, 2001; Kunuk & Mauro, 2010; Petrasek MacDonald et al., 2015), health and wellbeing (Cunsolo, 2014; Cunsolo Willcox, 2012; Harper et al., 2012; Lynagh, 2010), cultural continuity and preservation (Cunsolo, 2014; Cunsolo Willcox, 2012; Gearheard, 2005; Harper et al., 2012), and Indigenous knowledge related to human-caribou systems (Bali & Kofinas, 2014; Castro, 2017). However, documentary film, along with other forms of video-based media, have been “theoretically and methodologically neglected,” as the potential uses and strengths of these techniques beyond research communication are largely missing in the literature (Jewitt, 2012, p. 2). Consequently, there is a lack of understanding around how documentary film and other video-based media can maximize our understandings of qualitative data, while also supporting opportunities for alternative research outputs, such as videos, to be created from qualitative data collected.
To address these knowledge gaps, the goal of this article is to explore how documentary film can be used as a strategy for various dimensions of qualitative research, including data collection, analysis, and dissemination. This paper draws from a case study that co-created caribou-related knowledge and visual media outputs with Inuit from the Nunatsiavut and NunatuKavut regions in Labrador, Canada, all through the co-production of community-based, participatory documentary film work. Specifically, this article: 1) describes the influence of documentary film on the conceptualization and design of a qualitative study; 2) discusses the utility of conducting filmed interviews for in-depth data collection; and 3) outlines a new analytical approach that examines qualitative data while simultaneously working toward creating storytelling outputs.

**Background**

**The HERD Project**

**HERD: Inuit Voices on Caribou** (the “HERD” project; www.herdfilm.ca) is a multimedia study characterizing Inuit-caribou relationships in both the Nunatsiavut and NunatuKavut regions of Labrador, Canada. The methodological strategy of this project is to document, explore, and communicate Inuit voices about this human-caribou link all through the co-production of community-based, research-oriented, participatory documentary film work. The HERD project is responding to Inuit community and Inuit government requests to continue to use participatory audio-visual research methods to document, preserve, and share Inuit relationships with caribou in Labrador and opportunities for building and expanding Inuit-led audio-visual research methods. For Inuit in both the Nunatsiavut and NunatuKavut regions, caribou have been documented as critical to Inuit history (Bergerud et al., 2008), food security (Alton Mackey & Orr, 1987), cultural identity (Bergerud et al., 2008), intergenerational knowledge transfer (Ungava Peninsula Caribou Aboriginal Round Table, 2017), connections to the land (Natcher et al., 2012), mental wellbeing (Pufall et al., 2011), spirituality (Pufall et al., 2011), and subsistence and socio-economic livelihoods (Alton Mackey & Orr, 1987). In recent decades, however, caribou herds in Labrador have experienced precipitous declines (Bergerud et al., 2008; Couturier et al., 2010; Eamer et al., 2014), including a 99% decline of the George River Caribou Herd since 2001 (Government of Newfoundland and Labrador, 2018), leading to the enactment of a total hunting ban on caribou in 2013 by the Government of Newfoundland and Labrador (Castro et al., 2016; Government of Newfoundland and Labrador, 2016). Research has documented how the changes in caribou populations and management have led to Inuit experiences of ecological grief (Cunsolo et al., 2020), and changes in the ways Inuit self-identify (Borish et al., 2021).

This research was informed by a number of overlapping and complementary research methodologies and frameworks: (1) community-based participatory research methodologies in that communities and community members were core to project conceptualization, direction and leadership (Castleden et al., 2008; Minkler & Program, 2004); (2) decolonizing methodologies influenced this project through Inuit leadership throughout the research, and the prioritization and representation of Indigenous voices, while also working to support Indigenous self-determination in the research process (Tuhiwai Smith, 2012); (3) Indigenous health reporting guidelines outlined by the CONSIDER statement influenced this research, including decisions related to data management, ethical guidelines, participant engagement, and an analysis inclusive of Indigenous values (Huria et al., 2019); and (4) finally, the principles of the National Inuit Strategy on Research informed this research, including: advance Inuit governance in research; enhance the ethical conduct of research; align funding with Inuit research priorities; ensure Inuit access, ownership and control over data and information; and build capacity in Inuit Nunangat research (Inuit Tapiriit Kanatami, 2018).

Aligning with these frameworks, this project was directed by an Inuit-led, transdisciplinary *Caribou Research Steering Committee*, with members coming from a range of disciplinary backgrounds and knowledge systems. Specifically, Steering Committee members included: community members (n = 2), representatives from the Nunatsiavut Government (n = 3), the NunatuKavut Community Council (n = 3), the Torngat Wildlife, Plants, and Fisheries Secretariat (n = 3), and academics from the University of Guelph (n = 1), the Labrador Institute of Memorial University (n = 1), and the University of Alberta (n = 1).

**Filmed Interview Approach**

This project utilized documentary film as a qualitative methodological process for the collection of qualitative data. Between January and April 2019, the main data collection phase of this project was carried out through in-depth, conversational, filmed interviews with a diversity of Inuit from across Labrador, including different genders, ages, and life experiences with caribou (n = 84: 54 from the Nunatsiavut region; 30 from the NunatuKavut region). Interview questions were co-developed by the members of the Steering Committee and focused on exploring Inuit-caribou connections, the effects of the changes in caribou populations and management on Inuit health and wellbeing, and the future of Inuit-caribou relationships. Both Inuit and non-Inuit members of this Steering Committee took the role of the interview facilitator/filmmaker, with the primary research filming co-conducted by a female Inuit community researcher and a male Settler PhD candidate.

Interviews were recorded with informed written and verbal consent, and lasted 25 minutes on average, totaling over 2,100 minutes of documented, visual discussion across the two regions. In all cases, the filmed interview process was intended to be closely linked to the everyday lives of those being interviewed. Accordingly, interviews were conducted at a location of preference for participants, including in or outside of the participant’s house, around their community, or on the land. Many participants wanted to take part in activity-based...
interviews (i.e., engaging in everyday life situations while sharing their experiences), including engagement in carving, cooking, chopping wood, interacting with family, sewing, grass weaving, and tracking, and/or skinning wildlife. Activities that linked directly to the content of Inuit-caribou relationships were a particular focus of the film/research team, such as revisiting video or photographic archives of caribou-related experiences from the past or visiting key caribou habitat on the land.

All participants provided consent to share their visual and identifying information for both research and visual storytelling purposes. This work received research ethics approval from the University of Guelph, Memorial University, the University of Alberta, and from the Nunatsiavut Government Research Advisory Committee and the NunatuKavut Community Council Research Advisory Group.

**Video-Based Qualitative Analysis**

During the project conceptualization phase, the HERD project recognized the challenges associated with co-producing participatory research outputs, as well as the challenges associated with co-producing knowledge mobilization outputs. Transitioning from the data collection phase into the data analysis, it was understood that there was a need to innovatively integrate qualitative data analysis and documentary film editing. Consequently, a video-based qualitative analysis was developed as a complementary approach to qualitative inquiry.

A *video-based qualitative analysis* is an analytical approach that unites the strengths of two distinct fields of work: qualitative research and documentary filmmaking. At the core of this approach is the recognition that video interviews are data collected through the documentary film process, and these video data can be analyzed through a qualitative methodological procedure. More specifically, this approach generates analytical outputs and deep understandings from human experiences, knowledge, stories and their embedded visual contexts, while simultaneously producing an audio-visual, storytelling output that can be more easily viewed and communicated back to research participants, communities, and the public. Consequently, there are two overarching opportunities of this analytical approach: 1) explore and analyze qualitative data (e.g., social, health, and wellbeing analytics), and 2) create a storytelling output in the form of both short-length videos and a feature-length film.

As part of this project, we repurposed pre-existing filmmaking software—one the Lumberjack Builder program, a text-based video-editing and organizational software; and 2) Final Cut Pro X, a video-editing software—to facilitate applied qualitative analysis in a manner that was capable of handling high volumes of video data, while also facilitating the coding, searching, and filtering processes required for rigorous analysis. Capabilities within these two distinct video-editing softwares were integral for this multi-purpose approach, and to honor the video-based data collected through this research. While Lumberjack Builder and Final Cut Pro X take the place of pre-existing qualitative analysis softwares (e.g., NVivo™), it is important to note that the approach to analyzing the data remains deeply rooted in qualitative theory. Indeed, this strategy united pre-existing qualitative methods with audio-visual programs to maximize our comprehension of video-based qualitative data, which enhanced the ability to explore people’s tone, facial expressions, hand gestures and other features of the audio-visual data that also supported a unique and high impact approach to storytelling, knowledge mobilization, and community engagement. For further information and instruction on this new analytical approach, a step-by-step guide to undertaking a video-based qualitative analysis has been provided as a supplementary file with this article.

**Blending Film and Research: What We Found**

Throughout the research process, documentary film was integrated into three main phases: project conceptualization; data collection; and data analysis. This section outlines some of the ways in which documentary film was leveraged for each of these phases.

**Project Conceptualization: Methodologically Focused**

The co-creation of a documentary film was among the core reasons for the establishment of the HERD project. It was understood that accessing, interpreting, and ultimately representing Indigenous community perspectives, deeply rooted in oral history, land-based experience and observation, and intergenerational knowledge exchange would be challenging with traditional academic approaches. In conceptualizing the HERD project, it was important for research approaches to align with cultural values and associated modes of communication and knowledge-sharing, which were deeply linked to Indigenous perspectives and identities. As such, from the onset, documentary film was proposed and recognized by Inuit leads of this project as an appropriate fit for contributing to this continued oral tradition and achieving the aims of the study. This was, in part, because a variety of audio-visual research approaches had already been successfully carried out in the region (Cunsolo, 2014; Cunsolo Willox et al., 2012; Gabel et al., 2016; Harper et al., 2012; Pace & Gabel, 2018; Petrasek MacDonald et al., 2015), including the creation of research-based documentaries on the topics of climate change impacts on mental and emotional health (Cunsolo, 2014) and Indigenous wellbeing and caribou (Bali & Kofinas, 2014; Castro, 2017). With documentary filmmaking centered as the key methodological strategy for this research, the conceptualization and design of the study emphasized how data were going to be collected, managed, analyzed, stored, communicated, and used. This in turn helped to further structure trust, cohesion, and respect across the team of researchers and community members, in part because video supported Indigenous voices be front and center (or HERD) regarding their relationship and knowledge regarding caribou.
Data Collection: Integrating Place and Pastime Into Perspectives

In our research, we found that seemingly small decisions about how the data were collected—for example, the location of an interview—had significant implications for how participants responded to questions and thus what information was captured, and subsequently included in both the research for analysis and the documentary film outputs. Indeed, the Indigenous participants in the project often had long-term and place-based knowledges, and their memory, experience, and emotional responses were deeply tied to the environments in which they were engaged and filmed within. For the HERD project, participants chose to be interviewed in a variety of locations, each of which influenced how researcher and participant interchanges occurred, and therefore the information derived from the interview process. For example, an interview at a kitchen table was a different data collection experience compared to an interview on the land because these places influence how a participant might reflect on and share knowledge. Therefore, the process of filming an interview urged us, as well as the participant, to think intentionally about where an interview was conducted, recognizing how the location played into the narrative of the story being told.

Within this research, the camera facilitated an opportunity for participants to engage in an activity that they knew would be visually recorded. In other words, the use of documentary film as a data-gathering strategy encouraged people to engage in activities and pastimes—things they felt comfortable with on the land or in their communities (Figure 1). Activity-based interviews influenced how knowledge was shared during the interview and provided richer contextual experiences for the interviews and therefore in the data. The activity participants were engaged in also seemed to inspire thought and reflection about the content of the interview, and even support participant reconstructions of the past. For example, one participant, who was working on some caribou carvings during the filmed interview, shared how looking at his carvings every morning reminds him of a time where caribou were more abundant, and keeps that memory alive even though he can no longer hunt or consume caribou (Figure 1B). Another participant, who was looking at and talking about a caribou he had just tracked, reminisced on past experiences of seeing caribou with family in that same location (Figure 1F). These activities, facilitated through filming, thus supported participants in sharing important information related to the interview.

Activities also acted as a buffer between the researcher and participant. This was because participating in activities, whether on the land or in the community, allowed interviewees time to engage in something familiar and think about a question without feeling the need to talk, or even look at the interviewer—thereby contributing to a more informal, and perhaps comfortable, interview experience. For example, one participant shared most of his knowledge while watching old footage of a past caribou hunt, rather than looking directly at the interview team. This same participant took long pauses in between questions, reflecting on his thoughts while watching the old footage (Figure 1D). Additionally, this activity-centered approach gave participants more agency, as the flow, location, and duration of the interview would proceed according to a participant’s comfort level and preference. The film process, therefore, placed more control into the hands of participants during the interview, which helped to mediate our own positionalities (i.e., the preconceived notions and roles that we, as researchers and filmmakers, had about this work).

Data Analysis: Embodying Participant Knowledge

Through our documentary film and the resulting video-based analysis, there was a direct link between participant quotes and the “non-text” dimensions of participant knowledge, including body language, gaze, vocal pauses and cadences, accentuation, and tone of voice. By capturing the visual details from the filmed interview, this analytical approach allowed us to review not only what participants were saying, but how they were saying it, and in what context. This supported a more integrative process to form understandings from the information that participants were describing because it helped to determine the nuances in participant dialogue and expression. Having this additional visual information to work with and inform the analysis would not have been possible through conventional qualitative techniques that do not visually document the interview, and do not connect the participant with their words and physical person.

The use of video-editing softwares (i.e., Lumberjack Builder and Final Cut Pro X) was also essential for connecting individual participants with their information during the analytical process. This was, in part, because Lumberjack Builder links words in the interview transcript directly to the time they were discussed in the filmed interview (Figure 2), while Final Cut Pro X keeps these words connected to the footage through the analytical and video-editing process (Figure 3). This meant that we could watch, listen, and read the data all at the same time, permitting us to make analytical distinctions based on the audio, visual, and text components of the data. This also created the flexibility to use different combinations of data sources for analysis, including: text only; audio only; text and audio; text and visual; and text and visual combined. We could thus analyze the data with the intention of creating written, audio, or visual outputs independent of each other or blended together.

While Final Cut Pro X and Lumberjack Builder were not intentionally designed for qualitative research nor analytical purposes, through the lens of video-based qualitative analysis, we were able to carry out rigorous thematic analytical technique similar to those offered through established qualitative analysis softwares (e.g., NVivo, ATLAS.ti, Transana, and HyperRESEARCH). Arguably, given that video data are high volume, it requires specialized software meant to handle its various codecs and structures, and thus this approach was required as much to manage the data as well as the academic and video-based outputs. Consequently, this analytic approach
resulted in systematically coded and organized qualitative data that was subsequently used for reporting findings through qualitative journal articles, as well as applied storytelling. Therefore, while a video-based qualitative analysis does not replace pre-established qualitative analytical programs, it does provide an alternative strategy for managing, analyzing, interpreting, and tracking video-based qualitative data.

The use of a video-based qualitative analysis also merged the storytelling and the analytical elements of the research project into one approach. This allowed us to systematically investigate the collected qualitative data for research purposes while, at the same time, complete required steps for creating the storytelling outputs. For example, organizing and reviewing footage, coding and collating footage, and brainstorming and

Figure 1. Photos from filmed interviews that were activity-based and/or in a particular location chosen by the participant. (A) Nicholas and Veronica Flowers listen to their father, Reuben Flowers, while looking at photos of past caribou hunting trips; (B) John Winters reflects on past experiences with caribou while holding a caribou carving; (C) Belinda Shiwak and Sarah Baikie talking about caribou while grass-weaving; (D) Roger Shiwak discusses caribou while watching old footage of hunting trips; (E) Jim Shouse discusses caribou while skinning a wolf; (F) Karl Michelin referencing a caribou in the background (upper left of photo) while sharing stories about his family; (G) Judy Voisey cooking while sharing knowledge; (H) Theodore Ward being interviewed on the land outside of his community.
note-taking for story development were all essential steps for creating the documentary film, and all were done, at least in part, during the video-based qualitative analysis. These steps could have likely been carried out more efficiently in separation from the video-based qualitative analysis, just as the qualitative analysis could have been achieved without thinking of the storytelling elements. However, we found the amalgamation of the qualitative analytical procedure and the documentary film creation process led to both an overall more efficient and nuanced technique for the production of both academic and documentary film outputs.

**Contributions of Documentary Film for Qualitative Research**

Documentary film evidently offers powerful advantages and practical opportunities when integrated into a research process. From the onset of the HERD project, documentary film was the gateway to collaborating and working in partnership with diverse groups of people on researching a complex social, health, and environmental issue. Our experience with this research was only possible because documentary film was centered as the core methodological strategy—the foundation—that supported the oral and visual knowledge-sharing practices and traditions of the communities leading the HERD project.

Previous research has described the value of documentary film for supporting collective authorship and partnership (Cunsolo Willox et al., 2012; Harper et al., 2012; Munro & Bilbrough, 2018; Wilson, 2015). Further, communities around the world have recognized the importance of documentary film for advancing their priorities, aligning with their values, and enhancing their lives (Franceschelli & Galipò, 2020; Gleghorn, 2013; Spiegel et al., 2020; Wachowich, 2018). While our project was experienced within a specific cultural context, we believe a range of qualitative studies can center documentary film as part of the research design, or the research design in and of itself. Conceptualizing a project around this audio-visual approach may therefore support a process of knowledge co-creation with participants and communities, while ensuring participant wisdom is prioritized, heard, and seen throughout the project.

The data collection process for many qualitative studies also often fails to capture the interview setting, and is thus limited in discerning how knowledge can be place-based (Jones et al., 2008). Through the visual documentation of video interviews, the setting of the interview was not extraneous in our work; rather the location of where participants shared their experience was viewed as an important influence on how knowledge was being created and communicated. Previous research has found that the physical features of the interview location can shape...
participant discussion by evoking meaning and reflection from the setting (J. Evans & Jones, 2011). Further, participants can feel more comfortable and empowered in an environment of their own when taking part in a qualitative interview process (Green & Thorogood, 2004). Aligning with our own experience, the location was vital because it allowed people to be interviewed in places of importance, and do things that mattered to them. Participants brought us on trapping routes, wood paths, and a diversity of other locations, highlighting the very real connection between what a participant is saying, and where they are saying it. We suggest that the environment of an interview be considered and reflected on more intentionally when collecting data, and that documentary film be increasingly experimented with in research contexts in order to integrate place into participant perspectives.

Activity-based interviews were also an important data collection strategy, primarily used to support a more relaxed interview environment for the participant and stimulate a dynamic, visually appealing interview for filming purposes. However, there were also important implications of an activity-based approach on participant reflection and experience, and subsequently the knowledge being shared and collected during the interview. Previous research has acknowledged the interaction between activities and knowledge sharing, and how information can be influenced and “grow out of people doing things” (Morf & Weber, 2000, p. 81). For example, activity-based interview approaches, such as walking interviews (J. Evans & Jones, 2011), can contribute to a dynamic, contextual, and holistic method of qualitative inquiry (Burns et al., 2020; del Rio Carral, 2014; Hashim & Jones, 2007). Activity-based strategies also relate to ‘boundary work’, and more specifically, ‘boundary objects’, which are activities or items that can facilitate cooperation and enable individuals to share knowledge across cultural and social boundaries (MacMynowski, 2007; Zurba & Berkes, 2014; Zurba et al., 2019).

We also found that, through the process of being filmed, activity-based interviews supported a knowledge-sharing experience. This was, in part, because participants could share their own distinctive stories of caribou in ways that made sense to them. Rather than relying on one specific object or activity to facilitate a consistent knowledge sharing experience across all interviews, we left the decision up to the individual participant on how they would like the interview to proceed. Each interview was therefore a personalized experience, empowering participants to take more control over their own interview, which subsequently helped to mediate the preconceived roles and subjectivities of the researchers/filmmakers. Given that researchers have a variety of their own positionalities that can influence the qualitative procedure (Green & Thorogood, 2004), further incorporation of film into interview processes may be useful for enhancing participant agency and abilities to share knowledge on their own terms.

Figure 3. View of Final Cut Pro X with the browser, timeline, viewer, and filter tool open. The keywords applied to text and video clips in Lumberjack Builder are organized into “keyword collections” on the far-left column. All video clips associated with a keyword can then be viewed within the selected keyword collection. For example, the specific interview section highlighted in Figure 2 was coded for “Loss,” and this same interview section can be found within the “Loss” keyword collection in Final Cut Pro X.
In a qualitative analysis, some important challenges remain around the separation of the words from the individuals who shared them, reducing these words to units for academic motives, and the imposition of researcher narratives that divert attention away from participant stories (Hendry, 2007). In the video-based qualitative analysis used in the HERD project, the knowledge, wisdom, perspectives, and stories are not seen as separate or detached from the participant; rather, the knowledge is directly connected through visuals with the knowledge-holder, providing a more intimate relationship between the data and the people behind the data. This aligns with the “embodiment of knowledge” concept, which represents an idea or feeling in a tangible or visible form (Ritenburg et al., 2014), and may be an effective approach to communicating different ideas and understandings because it allows us to connect to other people, and thus other ideas, on a deeper level (McKnight, 2016). In our experience, the knowledge participants were sharing was embodied not only in their words, but also in the visual, sound, and contextual elements that could be taken in from the video interview. We felt this facilitated an opportunity to explore participant knowledge in a way that was more holistic, detailed, and personal. Indeed, through the analysis of the video interviews, we came to recognize some of the non-verbal forms of communication for individuals interviewed, such as intonation, facial expressions and body language. This deep understanding of the dataset, and how the data were connected to the visual and audio dimensions of the interview, supported our abilities to translate this knowledge into multiple forms, including a feature-length documentary film and peer-reviewed journal articles.

It can be important to have faith in the ability of participants to share their experiences without interference, rather than the perceived requirement of meaning-making through researcher interpretations (Hendry, 2007). By keeping participants connected to their words, our use of documentary film supported an approach that was more devoted to participant narratives rather than unintentionally prioritizing our own pre-conceived notions, and therefore minimized participant knowledge from being obscured. Unlike a stand-alone interview transcript, which inherently disconnects what participants are saying from how they are saying it, video interviews can be shared without modification, and thus engaged with in a perhaps more fulsome and meaningful way as compared to other forms of text-based research. For example, during multiple public presentations made during our research process, participant video clips were shown and were deeply engaging and informative for various audiences who were learning about and contributing to the project. Thus, by honoring participants in this tangible and visual manner, documentary film as a research process can center the individuals behind the data, rather than detaching or alienating them from their words.

Furthermore, the use of video for transcribing and analyzing the fine details of human knowledge and behavior can reveal new insights for qualitative understandings (Knoblauch et al., 2006). While the full analysis of human body language was beyond the scope of the HERD project, this additional visual information collected through filmed interviews, combined with the abilities to view in different ways (e.g., fast forward, slow motion, paused, without sound) point to the potential for revisiting and repurposing filmed interview data for deeper levels of qualitative inquiry (Heath et al., 2010; Jewitt, 2012). Further exploration of how a video-based qualitative analysis can be used to explore the non-text dimensions of what participants say may lead to advancements in qualitative discovery.

While the benefits of integrating documentary film into research are strong, there are a number of challenges that should be acknowledged. First, unlike other forms of data collection, participants that chose to be video-interviewed will not be anonymous; rather, directly identifying information such as participant faces, voices, names, and perspectives will be recorded on camera and potentially shared and viewed by public audiences (Benest, 2012). Given the inability to ensure confidentiality, the research team has a perhaps greater responsibility than other forms of research to provide all necessary information so that a potential participant can make an informed decision about their involvement. In our experience, it was critical to be as transparent as possible about how participant knowledge and personal information would be used, and to check in throughout the research process to ensure participants were still comfortable with their information being published and available to the public.

Second, more people are typically needed during the data collection phase comparing to a traditional qualitative study because there are more dimensions of the interview process that need tending (e.g., interviewing, filming, audio-recording, and lighting). Depending on the research topic, a larger interview and film team may risk making the participant uncomfortable, and thus the associated quality of the interview. For the HERD project, we interviewed in teams of one to three people, depending on the specific technical needs of the interview setting. Having a well organized and culturally aware interview team, able to read the cues of participants to support a sense of ease and comfort, while also being able to multitask and facilitate different technical and interpersonal roles is important.

Third, considering that Final Cut Pro X and Lumberjack Builder were not intentionally built for analytical purposes, there were challenges and inefficiencies in their capabilities of carrying out a video-based qualitative analysis. For example, there is no built-in option to write “memos” or notes within Lumberjack Builder, which is something that other qualitative analysis softwares offer. Although softwares like NVivo have limited visual storytelling abilities comparing to a video-based qualitative analysis, their specific role and focus on analyzing qualitative data means they offer features and characteristics that can support a more efficient data analysis process (Bassett, 2011). It is therefore important to recognize that a video-based qualitative analysis may take more time, effort, and attention to data management than conventional approaches using software specifically designed for qualitative analysis.
Despite these challenges, our experience with the HERD project shows how documentary film can contribute a distinct visual dimension to a study, which also challenges scholar-led approaches to narrative given that research participants within a video methodology are literally speaking for themselves (Wiebe et al., 2020). This is particularly important within the context of Indigenous and decolonial research approaches, which ensure that Indigenous peoples are in control of their knowledge. Indeed, if a more traditional text and audio-based research process might be considered two dimensional, the incorporation of documentary film can promote the process to a three-dimensional experience. In the data collection phase of our project, documentary film captured the visual elements that would otherwise be excluded from the interview, which was particularly important given that caribou was the topic and they were filmed alongside the qualitative research process. These visual elements, along with the other aspects of the data collected, were then available for exploration within the analysis. Importantly, the visual facets of the data can then be used for a wide range of visual-based communication objectives that would otherwise be unattainable (Petrarca & Hughes, 2014).

By blending the strengths of documentary storytelling into qualitative research more intentionally, qualitative exploration and communication can be set apart from more traditional forms of academic dissemination (Charmaz, 2006). Importantly, having the flexibility and capability to use multiple communication mediums to spread information to multiple audiences is a considerable asset for a research project (Bieniek-Tobasco et al., 2019; Jewitt, 2011, 2012). Data communication, translation, and mobilization were not after thoughts for the HERD project—rather, the entire study was working toward creating diverse communication outputs, which would be meaningful for the communities who supported the project with their times, knowledge, and guidance. We had the flexibility to create traditional academic outputs, such as peer-reviewed articles, but also co-create a feature length documentary film and other multimedia outputs, all in partnership with participants. The audio-visual impact of bringing participants and their associated voices, gestures, and experiences alive onscreen will help to articulate the complex realities of Inuit-caribou relationships, connect viewers to participant stories, and build trust between researchers and communities in ways that conventional written work cannot.

The storytelling strengths of documentary film can also support a process where multiple parts of a study can be told through a complex, yet cohesive, narrative. For example, having the data in audio-visual form can help with communicating findings in shorter, oral-based knowledge sharing events, including oral presentations at academic conferences and in class-room settings. Whether findings are final or preliminary, displaying short clips of the filmed interviews that reveal important concepts may lead to more dynamic and engaging presentations for audiences to follow. The ability to share visual data throughout various stages of the analysis process is in contrast to other forms of conventional qualitative work where, oftentimes, knowledge is only shared once reflected upon, finalized, and communicated in written form (Margolis & Pauwels, 2011).

Documentary film can also contribute to other modes of communication beyond the visual, such as written form. For example, building on the importance of the interview setting, the visual documentation of the data and location can allow for a more detailed description of the events and sequences that led up to the knowledge being shared. This relates to the concept of “perspicuous settings”—highlighting not only the importance of the physical location for influencing participant discussion, but also the value in reporting this information to viewers and readers in a clear and understandable way (Heath et al., 2010, p. 88). In our experience, we were able to provide contextual descriptions related to a quote by making use of the visual information embedded within the data. For example, in our writing, we often contextualize what a participant is saying by sharing the events and activities that preceded the quote, which can provide more depth and background for a reader. Without the visual documentation from filmed interviews, descriptions of participant quotes may be limited to transcripts, audio files, or notes from the interviewer. Given knowledge and data can be experientially based and specific to a particular environment (Guba & Lincoln, 1994), providing more elaborate descriptions through the visual information collected of how and in what context a participant’s discussion was recounted may help to articulate knowledge for readers of the work.

More broadly, complex social, health, and environmental issues demand inter-disciplinary approaches and systems thinking in order to understand and address them. Similarly, these issues also require inter-methodological dissemination approaches to be able to translate research information to different audiences in multidimensional ways, and the video and qualitative methods nexus achieves this.

Conclusion

With the growing accessibility and ease of using video-based technology, documentary film has gained traction in recent years as an increasingly useful strategy for qualitative research in the social, health, and environmental sciences. Through a case study focused on using documentary film as a research approach within an Inuit context, this article highlights the growing potential and power of enhancing qualitative research by blending it with audio-visual methods across various stages of a project, including conceptualization, data collection, and analysis. Our experience reveals how the methodological approach of using documentary film in qualitative research can initiate and support the conceptualization of, and collaboration on, a project with diverse groups of people; influence the kind of data being collected, while recognizing how place and actions are intimately connected to participant perspectives; and support an in-depth and innovative analytical process that keeps participants connected to their wisdom and experiences. Moreover, documentary film permits the flexibility and capability to mobilize, translate, and communicate knowledge in
diverse ways, and intentionally create research outputs for specific target audiences. Research-based documentary film has also proven to be a methodologically rigorous and in-depth research approach. This medium provides the unique opportunity to share information while simultaneously affecting viewers on a personal level, influencing people in often-more emotively compelling ways than are possible with other forms of academic dissemination. Within the HERD project, seeing caribou, while hearing Elders and community members speak about their importance and the consequences of their decline creates a fundamentally more powerful narrative than for which a text-based project would allow. This opens the possibility for emotion and other critical modes of communication to be more fully expressed, which in a very real way supports the uptake, mobilization, and actionability of knowledge being shared.

Finally, given increased recognition within academia for supporting research that is by, with and for Indigenous Peoples, we suggest further integration of documentary film into Indigenous-led and Indigenous-focused research. Through a case study focused on Inuit-caribou relationships in Labrador, Canada, this article has shown how powerful documentary film can be in the co-production of knowledge and the co-creation of knowledge mobilization outputs, ensuring participant voices are heard (or HERD) throughout the entirety of the process. This approach re-centers research on participants and their knowledge—critical in an Indigenous-led research context. It requires viewers to literally listen, reflect, and understand who is speaking, how they’re speaking, and why this message is important without this information being transcribed and presented by a researcher instead of the participants themselves. This political dimension to the nexus of video and qualitative research creates new opportunities for the expansion of decolonial methodologies, which are increasingly being called for by Indigenous communities the world over. Indeed, documentary film has the capacity to leverage the oral, intergenerational knowledge systems that are grounded in place-based memory, lived experiences, observation, and understanding within Indigenous communities. This approach can also collect, analyze, and communicate Indigenous knowledge in ways that respect and reinforce community values, beliefs, aspirations, and orally-based forms of knowledge sharing that are familiar and foundational within these communities. Future Indigenous-led and Indigenous-focused research can therefore utilize documentary film as a core methodological strategy in order to support the visual and representational dimensions of Indigenous wellbeing, knowledge, and self-determination.

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