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Key to the Past: Community Perceptions of Yup'ik Youth Interaction with Culturally Relevant Education Inspired by the Nunalleq Archaeology Project

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Abstract

This study qualitatively describes a) the implementation of culturally relevant education (CRE) programs for Yup'ik youth in Quinhagak, Alaska that developed from the Nunalleq Project—a nearby archaeological excavation; and b) community members' and program facilitators' perceptions of associated youth social and psychological outcomes. Ten semi-structured interviews (seven community members, three program facilitators) were undertaken and analyzed using constant comparative analysis. Community members and program facilitators attributed numerous outcomes to the Nunalleq-related CRE, such as imparting practical skills (e.g., wilderness survival, artistic and technological skills), teaching young people to value their heritage (e.g., educating them about the struggles their ancestors overcame), and psychological outcomes (e.g., improving self-esteem). Interviewees also offered specific recommendations for planning future local CRE programs. These results provide guidance for local program planners and a framework for researchers to directly assess CRE outcomes in Quinhagak. This project is a step toward the development of a systematic approach to CRE outcome evaluation rooted in community members' perspectives. Educators developing archaeology-inspired CRE programs in other Indigenous communities may also draw from this study's results.

European colonization has subjected Indigenous[1] peoples to trauma by devastating and subsequently marginalizing their cultures (Salzman 2001; Salzman and Halloran 2004). Contemporary Western education contributes to Indigenous cultural trauma by perpetuating and legitimizing Western colonial dominance (Battiste 2013). To address this "cognitive imperialism" and promote the psychological wellbeing of Indigenous youth (Battiste 2013:161), Indigenous scholars (e.g., Battiste 2013) advocate for culturally relevant education (CRE)—education rooted in Indigenous values, worldviews, and histories (Castagno and Brayboy 2008; Hesch 1999; Shay 2013). This study a) qualitatively describes CRE programs for Yup'ik (plural: Yupiit) youth that stem from a local archaeological excavation in Quinhagak, a village in Western Alaska (Figure 1), b) documents community members' and CRE facilitators' perceptions of associated youth social and psychological outcomes, and c) gathers suggestions for local CRE improvement.

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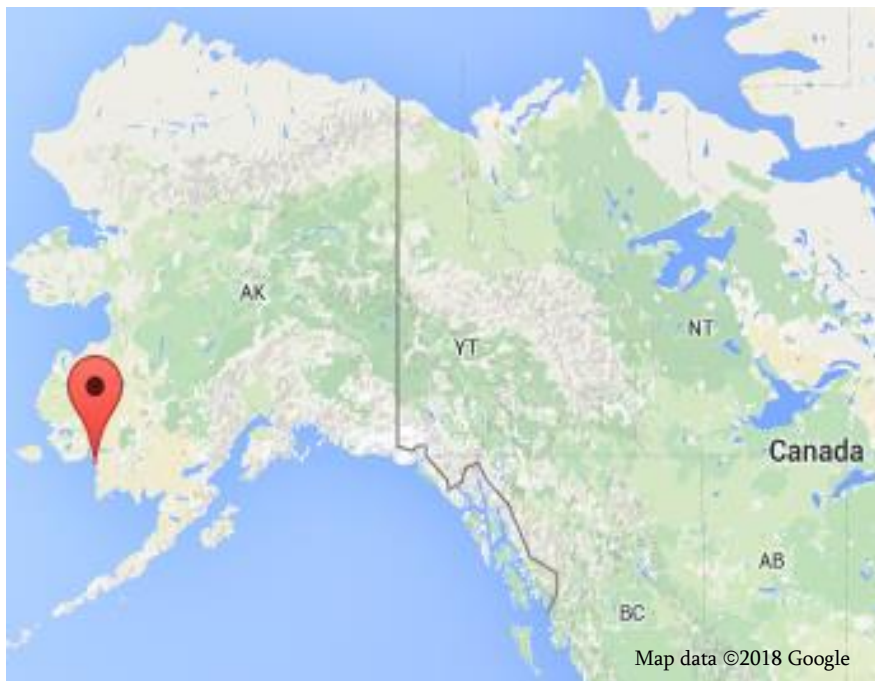
Figure 1. Map of Alaska and Northwestern Canada, with a pin placed on the location of Quinhagak, situated in Southwest Alaska on the Bering Sea coast. Image from Google Maps.

Cultural Identity, Colonization, and Mental Health

The term "cultural identity" is the label researchers have given to a socio-psychological construct that attempts to encapsulate a fluid, dynamic, unbounded, and historically-determined phenomenon necessary for human mental development and wellbeing (Taylor and Usborne 2010; Usborne and Taylor 2010). Cultural identities exist throughout all humankind but are so engrained in our lives that we are usually not cognizant of them (Usborne and de la Sablonnière 2014). Existing within a culture and endorsing its corresponding worldview provides norms and values to guide our behaviour, facilitates social cohesion, contextualizes our personal narratives by supplying history and continuity, and gives a point of reference to juxtapose ourselves against and ascertain our unique traits (e.g., "I know I am not witty because I am not in comparison to others in my culture"), thus, informing our personal identities and self-esteem (Chandler and Lalonde 1998; Usborne and Taylor 2010). Adherence to a cultural worldview also permits us to construct meaningful lives by pursuing goals and standards deemed worthwhile in our culture, despite the transient nature of existence (Becker 1973; Greenberg and Arndt 2011).

These psychological processes, though, are dependent on cultural identity clarity (Kashima 2010; Usborne and Taylor 2010). Cultural identity clarity refers to having a clear, confident understanding of our beliefs about our realities that stem from our

cultures (Usborne and de la Sablonnière 2014). This understanding means that we need a clear perception and experience of our culture—its values, norms, and history—to form cohesive and healthy thoughts about ourselves, others, and our worlds.

When Indigenous peoples are colonized, they are involuntarily thrust into a new culture, while, simultaneously, their own is stifled. This situation contributes to the poor health outcomes we see in some Indigenous groups today, such as increased rates of suicide and addiction (Chandler and Lalonde 1998; Salzman 2001; Salzman and Halloran 2004; Wexler 2009; Wexler et al. 2012; Wexler et al. 2015). These poor health outcomes are present in some (but not all) Yup'ik communities—the Indigenous people who are the focus of the present study.

The Yupiit are an Indigenous people, with a population of approximately 30,000, who primarily live in Southwestern Alaska (Fienup-Riordan 2007). Oral history and archaeological evidence suggest that descendants of modern-day Yupiit have made this part of the world their home for at least 10,000 years. Members of Yup'ik culture have traditionally been subsistence hunters and fishers, a lifestyle many Yupiit continue to uphold to varying degrees today (Kawagley et al. 1998). Vital foods in Yup'ik culture include salmon, caribou, moose, and wild berries. Seasonal and often unpredictable weather patterns in the Yukon-Kuskokwim River Delta play an important role in Yup'ik culture. Researchers, such as Kawagley and colleagues (1998), argue that such conditions have developed a strong resiliency among the Yupiit.

Although Yupiit live in a relatively geographically isolated part of the world, their culture has been influenced by Western colonization since at least the 1700s, first by Russian fur traders and missionaries, then by other Europeans with similar agendas, and finally by the United States (Fienup-Riordan 2013). Because of their colonization, Yup'ik elders express concern for youth, as younger generations "no longer have the secure mooring provided by their Indigenous culture" (Ayunerak et al. 2014:2) and are, thus, at increased risk for negative mental health outcomes (Berman 2014; Harder et al. 2012; Wexler 2006). To improve youth mental health outcomes, for several decades numerous Yup'ik community members have undertaken concerted and organized efforts to teach youth their cultural beliefs and practices, many with qualitatively positive results (e.g., Rasmus et al. 2014b). These initial positive findings converge with a large body of research that suggests factors which bolster Indigenous identity clarity, e.g., feelings of connectedness to culture, cultural continuity, and adherence to an Indigenous (non-Western) lifestyle, are associated with positive mental health outcomes, such as increased happiness and stress coping, and serve as protective factors against negative mental health outcomes, like suicide and addiction (Allen et al. 2014; Berman 2014; Big-Canoe and Richmond 2014; Chandler and Lalonde 1998; de la Sablonnière et al. 2011; Hallet et al. 2007; Harder et al. 2012; Henry et al. 2012; Kenyon and Carter 2011; Long 2014; Mason 2008; McIvor et al. 2009; Mohatt et al.

2011; Rasmus, et al. 2014a; Rasmus, et al. 2014b; Usborne and Taylor 2010; Wexler 2006, 2009; Wolsko et al. 2007).

One way to teach Indigenous youths about their cultures is through CRE programs (Castagno and Brayboy 2008; Hesch 1999; Shay 2013), many of which throughout North America have been associated with positive psychological outcomes in Indigenous youth (Demmert 2011; Jacono and Jacono 2008; Keddie 2013; Lipka 2002; Malin 2003; Malin and Maidment 2003; McConaghy 2003; Mushquash et al. 2007). In Alaska, educators' and researchers' understandings of CRE have evolved over time. In 1995, the Alaska Federation of Natives and the University of Alaska – Fairbanks jointly established the Alaska Rural Systematic Initiative (AKRSI) to document Alaskan Native knowledge systems and develop school curricula based on this information (Barnhardt 2014). Schools participating in AKRSI have pupils who have exhibited improved academic performance. These schools have developed Alaska Native Values for Curriculum to guide coursework based on ten tenets shared between various Indigenous groups in Alaska, including the Yup'ik people.

There are many instances of successful CRE in Yup'ik communities. Kisker et al. (2012), for example, describe Yup'ik CRE as applied to mathematics. As part of this program, elementary schools in Yup'ik communities across Alaska have integrated cultural concepts from Yup'ik cosmology into mathematics curricula, which have resulted in significant improvements in standardized testing scores. As another example, bilingual education at elementary and secondary schools in Yup'ik communities throughout the state have been in place since the 1970s and have helped to retain a relatively high (but still non-majority) rate of fluency in the Central Yup'ik language, as compared to many other Indigenous languages in Alaska (Fienup-Riordan 2013). Although CRE programs have been implemented in schools serving Yup'ik communities, researchers have not yet examined how community members perceive CRE to psychologically affect youth, including effects on cultural identity clarity.

To address this lack of knowledge, this study has three objectives: first, to describe unique CRE programs that blossomed from the Nunalleq Project, an archaeological excavation near Quinhagak; second, to investigate community members' and program facilitators' perceptions of youth outcomes associated with CRE (as well as learning about Yup'ik culture in general); and, third, to gather community perspectives on how local CRE can be improved.

The Nunalleq Project and Culturally Relevant Education

The Nunalleq Project is an archaeological excavation of an AD 14th-17th century Yup'ik village site near Quinhagak facilitated by the University of Aberdeen (2014). The project began when Warren Jones (president of Qanirtuuq Inc., Quinhagak's village corporation) noted the village site was eroding into the ocean (Figure 2) and reached

out to Dr. Rick Knecht, an archaeologist with experience working in Alaska, to excavate the site and preserve its artifacts before it disappears. The project has operated almost every summer since 2009 and has been profiled in Alaskan and international media, perhaps most notably in a 2017 feature of National Geographic Magazine (Williams 2017). A thorough description of the excavation, including exciting finds and updates on the project's status, as well as information on Nunalleq's community involvement, can be found on their blog at https://nunalleq.wordpress.com/ (Nunalleq 2018a).

Figure 2. Nunalleq Project excavation site in autumn 2016, with backfill placed on top for protective purposes. Note the Bering Sea located very close to the site. Due to the effects of climate change, the sea grows closer each year. September 20, 2016. Photo by Sean O'Rourke.

Since the Nunalleq Project's conception, it has been directed in partnership between Qanirtuuq Inc. and researchers from the University of Aberdeen, Dr. Rick Knecht and Dr. Charlotta Hillerdal. The project is of great interest to the local community, because many findings have confirmed local oral history (specifically, a series of events known as the "Bow and Arrow Wars") and provided examples of artifacts for the community to engage with (Hillerdal 2017). Artifacts from the excavation were initially transported back to Aberdeen for preservation. However, as of summer 2018, all artifacts have been moved back to Quinhagak and housed in a local museum that was established with grants procured by Dr. Hillerdal and Dr. Knecht (Cotsirilos 2018). In addition to describing the history of the Yup'ik people, this museum (Figure 3) showcases artifacts to the community and will allow future findings to remain in the village for preservation and documentation, rather than being sent away.

Figure 3. Nunalleq Culture and Archaeology Center in Quinhagak, the museum opened in the village to house artifacts from Nunalleq. Photo posted online October 5, 2018. Photo from the Nunalleq blog (Nunalleq 2018b).

Relevant to the present study, the Nunalleq Project has also spurred several examples of CRE, including various workshops that use art-making and artifacts to teach youth about their heritage and practical skills, such as carving (Graham 2015a; Hillerdal 2016; Quinhagak Heritage Inc. 2015) (note: the details of these workshops are described below in the Results section). Youth are also directly involved in the excavation of the site. Warren Jones has explicitly stated a goal of the project was to reintroduce local culture to young people: "One of the big reasons for this project was to help our future generation get back to our history and culture … so all this work is basically for our children and the future generations" (Anchorage Daily News 2014).

Anecdotal accounts of these CRE programs are positive. Youth call what they have learned "inspiring" and "amazing" and have expressed the desire to "teach [coming] generation[s] [what they've] learned" (Graham 2015b). Nunalleq also inspired local elders to publish a book for youth on Quinhagak's history and oral tradition, as well as Yup'ik guidelines for personhood (Fienup-Riordan 2013). These occurrences are

particularly powerful given that Quinhagak (Figure 4), a village of about 700, is located in the Yukon-Kuskokwim River Delta, a region plagued by some of the highest poverty, suicide, and substance abuse rates in North America (Fienup-Riordan 2013).

Figure 4. Houses in Quinhagak. September 16, 2016. Photo by Sean O'Rourke.

Method

The idea to conduct this project arose through conversation with community members and archaeologists in Quinhagak during summer 2015, when Sean O'Rourke was a field student at the Nunalleq Project. O'Rourke consulted with Warren Jones during the planning stages of this project and recruited a research partner, Mike Smith (a local Yup'ik man who has been involved with Nunalleq since 2010), to help plan and undertake this study. Before data collection, Warren Jones, on behalf of Quinhagak, and Dr. Charlotta Hillerdal, Co-PI of Nunalleq, approved this project. It was also approved by the University Research Ethics Board at Mount Saint Vincent University.

During every step of the research process, this study followed the Principles for the Conduct of Research in the Arctic, which describes ethical guidelines for working in and with communities living in the Circumpolar North (National Science Foundation Office of Polar Programs 2006). These principles were largely established in response to the fact that Indigenous-focused research in the Arctic has often neglected the perspectives of Indigenous community members. Research that does not take heed of Indigenous perspectives often yields findings that provide no benefit or return of information to local communities, and is even, at times, detrimental, such as by

perpetuating negative narratives surrounding indigeneity. Rivkin et al. (2010:3) summarize the principles as follows: "1) informing community leaders of planned research activities; 2) involving community members throughout the research process; 3) affording respect to cultural traditions, languages, and values; 4) providing a clear and transparent informed consent process; 5) protecting sacred lands and intellectual property; 6) guaranteeing confidentiality and anonymity; 7) providing all research materials to the community; and 8) communicating results in a manner that is appropriate and responsive to local concerns." Like the Nunalleq Project itself, this research project was developed and completed in partnership between the Yup'ik community and the research team (i.e., the authors of this manuscript).

Participants

O'Rourke conducted ten English interviews with community members (i.e., elders and caregivers) and program facilitators (i.e., archaeologists and program planners) in Quinhagak over the span of four weeks during September and October, 2016. Table 1 summarizes participant characteristics.

Recruitment. Mike Smith recruited all participants by contacting them via telephone and asking if they would be interested in participating in this study. Inclusion criteria for community members were that an individual must a) be aware of Nunalleq's existence, and b) know youth who have participated in related workshops. Inclusion criterion for program facilitators was that an individual had to have facilitated CRE related to Nunalleq.

Participant Characteristics. Participants were asked whether they wished to be identified by name in any products stemming from this research (e.g., research papers or presentations). Some participant descriptions are vague in order to respect participants who asked not to be identified. However, most participants decided to be identified by their real name in order to give them full credit for their ideas.

Community Members. O'Rourke interviewed seven community members (six females, five Yup'ik, four from Quinhagak). Alicia Miner, an elementary teacher at the local school (Kuinerrarmiut Elitnauviat) from the contiguous United States, has lived in Quinhagak for five years. Elizabeth Pleasant is a Yup'ik woman who has lived in Quinhagak for about 50 years. Frank Williams is a Yup'ik man from Quinhagak. Grandma (pseudonym) is a Yup'ik elder from Quinhagak. Keri Cleveland is a Yup'ik woman from Quinhagak and the Yup'ik language teacher at the school. Peggie Price, the school's principal, is from the contiguous United States, but has lived in Quinhagak for three years. Sarah (pseudonym) is a Yup'ik woman from Quinhagak.

Program Facilitators. O'Rourke interviewed three program facilitators affiliated with Nunalleq (two females, two Yup'ik, one from Quinhagak). Jacqui Graham, a former archaeology Ph.D. student at the University of Aberdeen from the contiguous United

States, facilitated youth workshops related to Nunalleq. Pauline Matthews, a Yup'ik elder and city councilwoman from Quinhagak, was Jacqui's assistant. Archie (pseudonym), a Yup'ik man who has lived in Quinhagak for decades, helped facilitate a carving workshop.

Name (pseudonyms in quotations)	Gender	Community Member or Program Facilitator	Brief description of participant	Identifies as Yup'ik (yes or no)
Alicia Miner	Female	Community member	Elementary schoolteacher; originally from contiguous USA; has lived in Quinhagak for 5 years	No
Elizabeth Pleasant	Female	Community member	Has lived in Quinhagak for 50 years	Yes
Frank Williams	Male	Community member	Has lived in Quinhagak for entire life	Yes
"Grandma"	Female	Community member	Has lived in Quinhagak for entire life	Yes
Keri Cleveland	Female	Community member	Teaches Yup'ik language at local school; has lived in Quinhagak for entire life	Yes
Peggie Price	Female	Community member	Principal at local school; originally from contiguous USA; has lived in Quinhagak for 3 years	No
"Sarah"	Female	Community member	Has lived in Quinhagak for entire life	Yes
Jacqui Graham	Female	Program facilitator	PhD student from U. Aberdeen; originally from contiguous USA	No
Pauline Matthews	Female	Program facilitator	City councilwoman in Quinhagak; has lived in Quinhagak for entire life	Yes
"Archie"	Male	Program facilitator	Has lived in Quinhagak for decades	Yes

Table 1. Characteristics of study participants.

Sample Size. Our sample size is smaller than we hoped, due to difficulty recruiting participants. Mike Smith reports this situation occurred because many people leave Quinhagak during the fall (when we collected data) to engage in subsistence activities (e.g., hunting, berry-picking). Nevertheless, ten interviews provided a range of diverse opinions that represent many perspectives persons in Quinhagak might have, given its small size (Marshall 1996).

Procedure

Interviews. O'Rourke conducted private one-on-one interviews in Quinhagak's community centre. Interviews took between 30 and 60 minutes and were audio-recorded. He took notes on key points of participants' responses during and immediately after each interview. He gave each interviewee 20 USD as a thank-you gift for their participation.

Interviews were semi-structured and conversational to ensure participants felt free to discuss any topics related to youth CRE engagement they felt important (rather than predetermined topics, which could bias responses). O'Rourke began each interview by asking participants what they thought about Nunalleq to start a conversation in the hopes they would discuss youth CRE outcomes without being prompted. When a participant strayed from the topic of youth CRE engagement, O'Rourke used one of a series of prompts to guide the conversation back on topic. Community members' prompts focussed on a) how CRE affects how youth see themselves, their community, and their culture, and b) whether community members have suggestions for future CRE. Program facilitators' prompts asked them to describe a) CRE they have facilitated, and b) what they believe to be CRE outcomes in workshop participants. We modelled interview prompts after an anthropologist's script previously used in the village. We consulted Mike Smith to ensure all prompts were worded in a way people in Quinhagak would understand, and that was relevant to their lives and culture.

Data Analysis

We used constant comparative analysis to inductively code interview data (Dye et al. 2000). Constant comparative analysis is a creative process whereby interview excerpts are sorted with conceptually similar excerpts until themes, and then patterns, emerge. While O'Rourke coded each interview, he simultaneously compared it to others to determine whether he needed to create new themes to more accurately encapsulate topics on which participants touched. O'Rourke did a preliminary analysis of interview notes by hand while in Quinhagak to determine whether data saturation had been achieved (i.e., minimal to no new topics emerging in new interviews). He did a complete

analysis using MAXQDA 12, a qualitative data analysis software, after all interviews had been conducted and transcribed.

We supplemented program facilitators' CRE descriptions with information gleaned from public documents. These documents (e.g., posters advertising CRE) are housed in Quinhagak's community centre or posted online, such as newspaper articles and blogs (see Graham 2015a, 2015b; Hillerdal 2016; Quinhagak Heritage Inc. 2015; Yup'ikTube 2015). We received sufficient information about the workshop series run by Jacqui to organize it using a logic model (Figure 5). Logic models visually map core components of programs, how they work together, and how different components lead to various outcomes for users (Taylor-Powell and Henert 2008). We hope by presenting a logic model that others can see an example of an effective CRE program's key features in order to implement CRE in other communities.
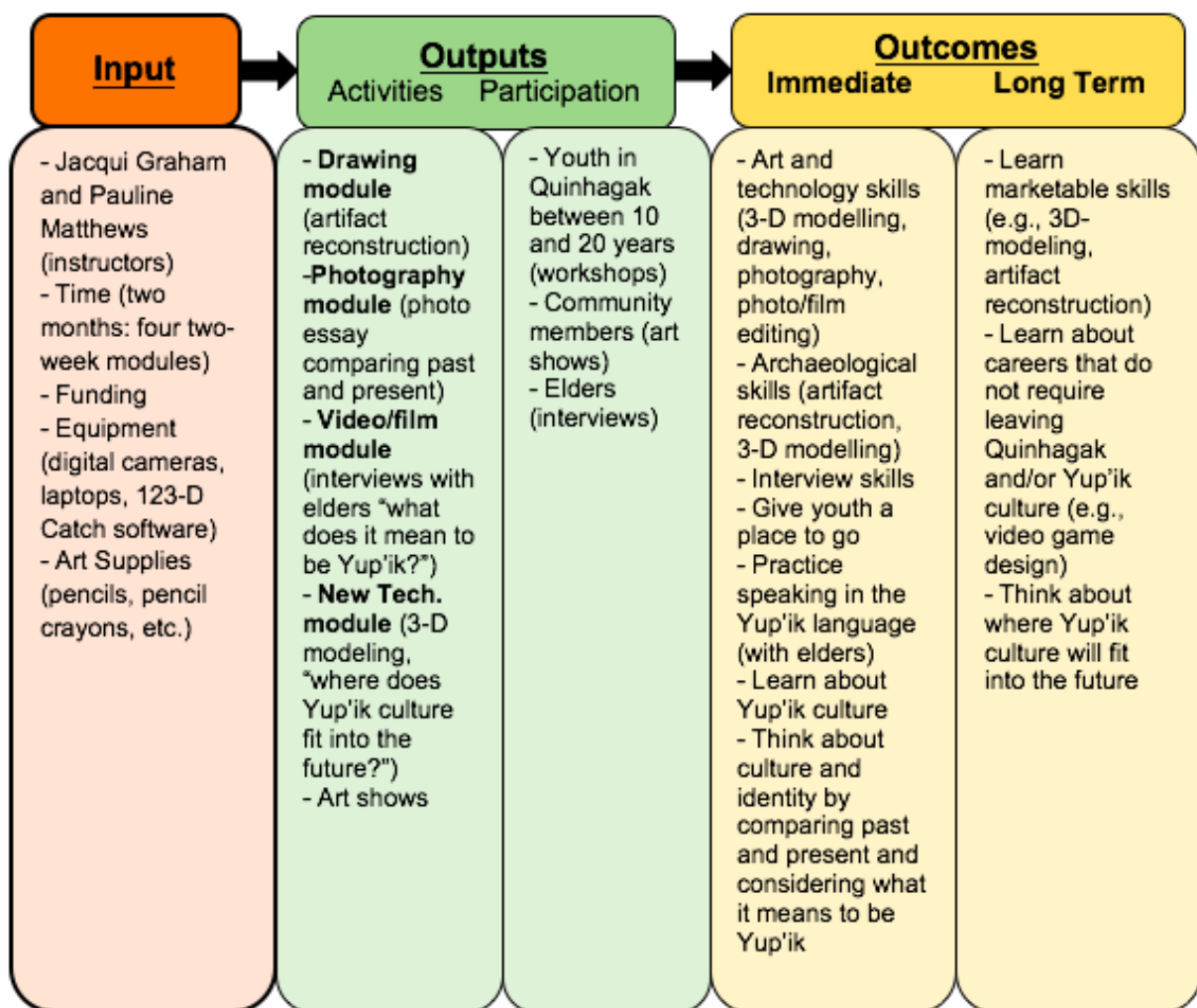
Results

We first describe CRE programs affiliated with Nunalleq, then CRE outcomes and suggestions. In quotes, we replace extraneous utterances (e.g., "like," "uh") with ellipses.

Descriptions of CRE Programs affiliated with Nunalleq

All workshops affiliated with Nunalleq are approved by Warren Jones and are free. Although workshops are funded by archaeologists' grants, archaeologists work with community members to determine their topics and schedules (e.g., Jacqui worked with Pauline). Unfortunately, workshops do not run all the time, and none were occurring while O'Rourke was in Quinhagak, so we are unable to directly comment on them.

Carving Workshop. Archie helped archaeologists facilitate a three-day carving workshop in July 2016. Community members of all ages were invited via posters and through word-of-mouth to learn about Yup'ik carving techniques. Archie noted "mostly young kids" (10-15 years) attended. Attendees replicated artifacts found at Nunalleq (Figure 6), like harpoon heads, using traditional techniques. Archie reports that participants learned "what the material was, ... where [our ancestors] got it from, and how the material was cut. [Archaeologists] told stories about [how our ancestors gathered] wood from the beach and what [they made]. The antlers, [they] got ... from caribou ... All material[s], and what [they were] used for, even [for] women things (the women used to use [materials] like sinews or grass), what animals they used, and where the grass came from. Those kind of things." In other words, the carving workshop taught participants several lessons from Yup'ik cultural history and offered practical skills in carving, a traditional practice in Yup'ik culture, youth could use in their everyday

life. Since this carving workshop took place, other similar educational programs have followed. Their descriptions can be found on the Nunalleq blog (Nunalleq 2018a).

Input	Outputs — Activities	Participation	Outcomes — Immediate	Long Term
- Jacqui Graham and Pauline Matthews (instructors) - Time (two months: four two-week modules) - Funding - Equipment (digital cameras, laptops, 123-D Catch software) - Art Supplies (pencils, pencil crayons, etc.)	- **Drawing module** (artifact reconstruction) -**Photography module** (photo essay comparing past and present) - **Video/film module** (interviews with elders "what does it mean to be Yup'ik?") - **New Tech. module** (3-D modeling, "where does Yup'ik culture fit into the future?") - Art shows	- Youth in Quinhagak between 10 and 20 years (workshops) - Community members (art shows) - Elders (interviews)	- Art and technology skills (3-D modelling, drawing, photography, photo/film editing) - Archaeological skills (artifact reconstruction, 3-D modelling) - Interview skills - Give youth a place to go - Practice speaking in the Yup'ik language (with elders) - Learn about Yup'ik culture - Think about culture and identity by comparing past and present and considering what it means to be Yup'ik	- Learn marketable skills (e.g., 3D-modeling, artifact reconstruction) - Learn about careers that do not require leaving Quinhagak and/or Yup'ik culture (e.g., video game design) - Think about where Yup'ik culture will fit into the future

Figure 5. A logic model organizing information about the workshops facilitated by Jacqui Graham and Pauline Matthews. "Input" denotes resources invested into workshops. "Outputs" denotes activities included in workshops and who participated. "Outcomes" denotes workshops' outcomes for youth, both immediate and long term.

"Looking to the Past to Shape the Future: Yup'ik Archaeology, Art and Technology." The workshops Jacqui Graham and Pauline Matthews facilitated (titled "Looking to the Past to Shape the Future: Yup'ik Archaeology, Art and Technology") were offered to local community members 10 to 20 years old between February and April, 2015. They were comprised of four two-week modules (Figure 5)—drawing,

Figure 6. A well-preserved human/walrus transformation mask (carved approximately 500 years ago), as well as other artifacts, such as a bird figurine and ulus, excavated during O'Rourke's first visit to Quinhagak in summer 2015. Participants in Archie's workshop learned how to carve wood like their Yup'ik ancestors, and were inspired by finds from the Nunalleq Project such as these artifacts. July 20 and July 19, 2015, respectively. Photos by Sean O'Rourke.

photography, video/film, and new technology (3-D model making)—explicitly linked to the Nunalleq Project. Each module taught youth basic artistic techniques before beginning a project and culminated in an art show open to the community. A blog describing these workshops is available at http://archaeology4past2future.blogspot.ca/ (Graham 2015a). This blog also includes photos from the workshops and 3-D models participants created.

In the first module (drawing), participants reviewed basic drawing techniques and then drew artifacts from Nunalleq using archaeologists' photos. The goal of this workshop was to teach youth how archaeologists draw artifacts (e.g., during artifact reconstruction).

The second module on photography was taught by Jacqui and Pauline who instructed participants on how to use digital cameras and compose photos. The goal of this module was to compare the past to the present in a photographic essay (i.e., using images to tell a story) with artifacts found at Nunalleq (e.g., one youth compared dolls found at Nunalleq to toys in the local store today).

The video/film module was third, the goal of which was for young people to answer the question "what does it mean to be Yup'ik?" by interviewing local elders. Jacqui and Pauline taught workshop participants to film digital videos and conduct

interviews (e.g., how to effectively ask a question). Youth created interview questions and sorted out logistics (e.g., interview times) by themselves. Pauline helped with language translation for interviews with elders who spoke only in the Yup'ik language. These interviews can be viewed on "Yup'ikTube," a YouTube channel created by Jacqui (Yup'ikTube, 2015).

The new technology module taught participants to construct 3-D digital models using digital cameras and 123-D Catch software on MacBooks and iPads. Jacqui and Pauline first taught the basics of 3-D modelling, like how to create a model, and then attendees made models of artifacts from Nunalleq. This module's goal was for youth to "see where they wanted Yup'ik culture to fit into their futures." The instructors worked to achieve this goal by talking to young people about careers that use 3-D modelling, such as video game design and cultural heritage preservation. Youth can do these jobs, Jacqui noted, from a distance without leaving Quinhagak. The art show for this module was combined with a community potluck where youth acted as hosts (e.g., they got tea for elders and helped prepare food). Jacqui reports the turn out was "great."

To summarize, these workshops effectively used modern technologies, such as 3-D modeling computer software and iPads, to illustrate Yup'ik history and culture; thus, these workshops fulfill the description of CRE.

Constant Comparative Analysis

Themes produced via constant comparative analysis of participants' responses fit within two broad themes: 1. <u>"It's like they're shining": Youth Outcomes from Participating in CRE</u> describes what participants reported to be the outcomes of both workshops related to Nunalleq and young Yupiit learning about their culture in general; 2. <u>Workshop Suggestions</u> outlines participants' input for future CRE programs. A summary of these themes and their corresponding categories is shown below.

Theme 1: <u>"It's like they're shining": Youth Outcomes from Participating in CRE</u>
- **Category 1:** <u>Workshop Outcomes</u> - Describes specific outcomes of youth engagement in CRE, and includes four sub-categories:
  - <u>Practical Skills</u> – Useable skills attained by CRE participation
  - <u>Value Heritage</u> – Greater awareness and pride in Yup'ik heritage among participants
  - <u>Psychological Outcomes</u> – Cognitive and affective benefits of young Yupiit engaging in CRE
  - <u>Fulfillment of Community and Cultural Values</u> – How engagement in CRE fulfills expectations and values in Yup'ik culture

- **Category 2:** <u>Learning about Culture in General Outcomes</u> – Describe benefits of youth learning about their culture more generally, aside from benefits related specifically to the Nunalleq Project (i.e., how learning about their culture positively influences Yup'ik youth), and includes six sub-categories:
    - <u>Psychological</u> – Cognitive and affective benefits of learning about Yup'ik history, customs, beliefs, and other aspects of Yup'ik culture
    - <u>Value Heritage</u> – Learning about Yup'ik culture enables young people to appreciate their cultural heritage
    - <u>Traditional Technologies</u> – Outcomes related to acquiring skills in traditional technologies (e.g., carving)
    - <u>Fulfill Community/Cultural Values</u> – Learning about Yup'ik culture and heritage fulfills Yup'ik cultural expectations and values
    - <u>Healthier Lifestyle</u> – Engaging in Yup'ik culture carries health benefits
    - <u>Change the Future</u> – Learning about Yup'ik culture empowers youths to change the future of their people

Theme 2: <u>Workshop Suggestions</u> – Input from participants regarding future CRE implementation in Quinhagak
- **Category 1:** <u>Connect to Heritage</u> – Workshop suggestions focusing on connecting attendees to non-material and non-linguistic aspects of Yup'ik culture
- **Category 2:** <u>Traditional Technologies</u> – Ideas related to the construction of traditional Yup'ik technologies
- **Category 3:** <u>Language</u> – Suggestions about learning the Yup'ik language in CRE
- **Category 4:** <u>Teacher Resources</u> – Suggestions about resources for local teachers
- **Category 5:** <u>Survival Skills</u> – Wilderness survival-related suggestions
- **Category 6:** <u>Hands-On</u> – Suggestions about youth obtaining hands-on experience with archaeology
- **Category 7:** <u>Dance</u> – Traditional Yup'ik dancing-related ideas
- **Category 8:** <u>Demographics</u> – Discussions surrounding the segment of the population workshops target
- **Category 9:** <u>Logistics</u> – Suggestions about workshop logistics, such as location and time

1. "It's like they're shining": Youth outcomes from participating in CRE.
This theme encompasses two categories: "Workshop Outcomes" and "Learning about Culture in General Outcomes."
Workshop Outcomes. This category was discussed by each participant and contains thoughts on youth outcomes associated with Nunalleq-affiliated CRE. In total, it

was mentioned 30 times and is broken down into five sub-categories: "Practical Skills" (mentioned 12 times by six participants), "Value Heritage" (mentioned eight times by four participants), "Psychological" (mentioned seven times by six participants), and "Fulfill Community/Cultural Values" (mentioned three times by one participant).

"Practical Skills" refers to workshop outcomes that pertain to attendees learning practical/applicable skills. Interviewees discussed three types of practical skills: "Survival Skills" (mentioned five times by four participants), "Art and Technology" (mentioned five times by three participants), and "Archaeology" (mentioned twice by two participants). "Survival Skills" are outcomes that teach young people wilderness survival. Keri stated workshops give "youth more knowledge … What if they ... go out and… their engine breaks down ... and they can remember what they saw ... what was used to survive." "Art and Technology" describes workshop participants developing artistic or contemporary technological skills. For example, Grandma reported Jacqui's workshops taught her grandchildren "how to take pictures, photography, and film editing; pictures ... landscapes and stuff." "Archaeology" refers to youth learning archaeological skills. When talking about when his daughter visited Nunalleq, Frank said, "she was talking about it, what they find, what she learned, especially the [archaeological grid maps] ... how [archaeologists] did digging patterns, she was really interested."

The sub-category "Value Heritage" contains interviewees' thoughts on how workshops help young Yupiit to value their culture and heritage. When asked what the workshops taught participants, Keri responded, "[it makes them] appreciate their culture has survived ... 'Cause they know what the weather can get like here. If our ancestors didn't make it, then we wouldn't be here."

"Psychological" describes psychological outcomes among CRE workshop participants. Interviewees broadly discussed three types of psychological outcomes: "Identity" (mentioned twice by two participants), "Empowerment" (mentioned twice by two participants), and "Pride/Self-Esteem" (mentioned twice by two participants). "Identity" refers to outcomes related to identity (i.e., who youth see themselves to be). For instance, Grandma stated, "[Jacqui's workshops made youth] more aware of their culture." "Empowerment" refers to CRE helping young Yupiit to think positively about their futures. Jacqui said she thought the workshops she ran "encouraged kids to think about [their] future ... and [taught] them about possibilities." Peggie stated, "the more that [Yup'ik youth] know about [their] heritage, the better it's gonna be for preserving the rights of [Yupiit]." The third psychological outcome, "Pride/Self-Esteem," describes CRE enabling participants to think and feel more positively about themselves and their culture. Alicia stated, "[the workshops] make [youth] value who they are ... If some kids ... struggle in [school], but are ... better at [things important to Yup'ik culture, like fishing and hunting] ... they feel valued." She spoke of one girl who gave a speech to her

school about being Yup'ik: "[she said Nunalleq made her] proud to be Yup'ik, and she is ... a quieter kid, [but] she was very confident and happy and proud."

The final category of outcomes related to CRE participation, "Fulfill Community/Cultural Values," refers to youth fulfilling Yup'ik standards of proper personhood. Archie reported that telling young Yupiit stories about their ancestors at the carving workshop taught them "to be generous to everybody, as one big family in the community, peacefully, helping each others." He also added the workshops allow attendees to teach what they have learned to others—"everything is passed down."

Learning about Culture in General Outcomes. "Learning about Culture in General" describes participants' thoughts on the outcomes of youth learning about their culture in general (i.e., excluding outcomes explicitly related to Nunalleq's workshops). This category was mentioned a 34 times by eight interviewees and contains six sub-categories: "Psychological" (mentioned 11 times by four participants), "Value Heritage" (mentioned eight times by four participants), "Traditional Technologies" (mentioned five times by five participants), "Fulfill Community/Cultural Values" (mentioned five times by three participants), "Healthier Lifestyle" (mentioned four times by three participants), and "Change the Future" (mentioned twice by two participants).

The sub-category "Psychological" describes culture-learning outcomes related to young people's psychological functioning. These psychological outcomes include: "Pride/Self-Esteem" (mentioned eight times by two participants) and "Identity" (mentioned three times by two participants). "Pride/Self-Esteem" refers to making youth think positively about themselves and their culture. Alicia reported "we have one kid I can think of in particular, … [after learning] native dancing, he is ... the best native dancer. [It helped him] feel confident ... Those kinds of things help the kids realize they can be ... whatever they want. The Yup'ik dancing ... has helped a lot of our kids ... you see them up there dancing, and it's like they're shining." "Identity" describes outcomes that relate to youth identity formation. When asked about how learning about their culture affects Yup'ik young people, Peggie responded, "when [they] go beyond the names and stories [and learn] who [their ancestors] are, then [youth] start identifying who [they] are, why [they] are the way [they] are."

"Value Heritage" contains excerpts from participants' responses where they discuss how learning about their culture causes Yup'ik youth to appreciate/understand their heritage. Grandma stated, "the kids can start learning what their culture was. How it changed, and how it is now ... They have to know how hard our generation [had it]." Peggie added, "[learning about their culture] grounds [Yup'ik youth], gives them a sense of belonging, that they just all of a sudden didn't appear, that they've got these folks, even though they may have passed on. ... I am going to carry forth the way our grandfather did when he had adversity. He dealt with it this way, and I've got adversity, so I can do it too."

"Traditional Technologies" contains outcomes referring to young Yupiit learning how to make traditional technologies. This sub-category includes: "Subsistence" (mentioned three times by three participants) and "Other" (mentioned twice by two participants). "Subsistence" outlines traditional technologies related to subsistence. Keri stated "A few years ago we learned about all kinds of grass use ... They used to make fishnets out of grass and it was really strong ... What if [youth] can't afford a fishnet ... ? They can make their own [and] go catch ... fish with a [grass] net." "Other" broadly references traditional technologies unrelated to subsistence. Archie talked about how carving he has done outside of his workshop has inspired a local youth: "I made a replica as close as we could get on a mastodon piece ... And right now [the local youth] has it, and ... he wears it. And [he has now done] some hand sawing, carving himself. I think he's learned some things from the past"

"Fulfill Community/Cultural Values" describes youth culture learning outcomes that have to do with fulfilling Yup'ik standards of proper personhood. Sarah stated learning about their culture teaches young Yupiit "respect and everything ... not to steal or kill, or anything like that." Grandma noted, "[learning about their culture] helps youth get more involved in the community."

The category "Healthier Lifestyle" contains outcomes that relate to young Yupiit endorsing a healthy lifestyle. When asked about what learning about their ancestors does for youth, Grandma responded, "I think knowing that, [makes youth] lead healthier lives; they're active, and [do] everything, go hunting, fishing, trapping ... they get lots of exercise."

"Change the Future" outlines participants' thoughts on how learning about their culture enables youth to change the future, either for themselves or their community. When asked about how learning about their culture affects young people, Grandma responded they acquire "skills that they can learn ... To learn from them what they want to do, maybe when they do this, they'll think maybe I can do this [for employment]." When asked the same question, Peggie replied, "if there are things happening in the village that [youth] don't like, they can be an agent for change, as they educate themselves and become more aware [about] what the issues are and what the problems are, they can ... learn how to solve [them]."

2. Workshop Suggestions. The theme "Workshop Suggestions" contains participants' suggestions for local CRE improvement. Nine participants gave 47 suggestions which were sorted into nine categories: "Connect to Heritage," "Traditional Technologies," "Language," "Teacher Resources," "Survival Skills," "Hands-On," "Dance," "Demographics," and "Logistics." These categories are explained in Table 2.

Category	Meaning	Number of Mentions by Number of Participants	Examples
Connect to Heritage	Suggestions focusing on connecting youth to non-material and non-linguistic aspects of Yup'ik culture	13 times by 8 participants	"I wish there was more workshops ... with the elders ... Speaking ... with the last remaining elders we have, record them, document them ... If [youth could] talk to the elders ... that would be amazing. And the artifacts too. Very few elders left that can tell you what [the artifacts are]. To me, I think, you know, the elders have the key to the past. It's up to us to ask them so we can unlock the door."
Traditional Technologies	Suggestions about the construction of traditional Yup'ik technologies	9 times by 5 participants	When asked what she would like young people to learn about, Grandma responded, "[to] make stuff like harpoons, ulus, maybe snares, stuff like that."
Language	Suggestions about the Yup'ik language	7 times by 6 participants	Elizabeth: "Yup'ik words, Eskimo words … language. [Youth] could learn that." Pauline: "you gotta talk to [youth] in Yup'ik, don't translate!"
Teacher Resources	Suggestions related to resources for local teachers	5 times by 2 participants	Alicia: "it would be ... good if there were programs or ... some online library where [teachers] could pull stuff to ... educate the [children]. If there was some kind of ... online place where you could

			rent out activities to do in [the] classroom [related to] the dig."
Survival Skills	Wilderness-survival related suggestions	4 times by 2 participants	Pauline: "I'd also like for them to know ... naming the places where everything is ... because a lot of times when they are going ... up river, they don't tell us ... where they're going ... and if they don't come back ... we wanna know exactly where their location is so they can go to [the] place where they told us. And … directions are very important, especially if they are hunting."
Hands-On	Suggestions about giving participants hands-on experience with archaeology	3 times by 2 participants	Peggie: "I think hands-on things are really, really good and to simulate a dig would be kind of fun."
Dance	Suggestions about traditional Yup'ik dancing	2 times by 2 participants	Keri: "I think [local children] would really like having a [Yup'ik] dance group again."
Demographics	Suggestions about the segment of the population workshops target	2 times by 2 participants	Sarah: "I wish they could do [workshops] with [younger] kids too."
Logistics	Suggestions about workshop logistics, such as location and time	2 times by 2 participants	Peggie: "[if the workshops] didn't interfere with state-required school time, [it] would be really good."

Table 2. Workshop suggestions.

Discussion

These results indicate people in Quinhagak have positive opinions about Nunalleq and its associated CRE. This outcome is not surprising, given the growing Indigenous cultural revitalization movement developing in the Yukon-Kuskokwim River Delta (Fienup-Riordan 2004, 2007, 2013; Fienup-Riordan and Rearden 2003) and elsewhere in Alaska (Mason 2008; Pullar et al. 2013). The social and psychological CRE outcomes mentioned by participants suggest Nunalleq and CRE are viewed positively because of how they affect young people. First, we discuss what people in Quinhagak believe the Nunalleq-related CRE has done for youth, and then discuss future local CRE implementation.

What has Culturally Relevant Education Done for Youth in Quinhagak?

By asking community members and program facilitators in Quinhagak about how they think CRE affects youth, we have found the community attributes a number of positive outcomes to CRE, rather than other factors. Although we expected participants to primarily discuss psychological outcomes, the conversational and flexible nature of our interviews allowed participants to discuss other CRE outcomes. Outcomes associated with learning about culture in general are discussed first, followed by outcomes associated with CRE programs affiliated with the Nunalleq Project.

Culture Learning in General. Community members and program facilitators had similar thoughts about how learning about Yup'ik culture benefits young people. Prominent outcomes included teaching youth to value their heritage (e.g., teaching them about how hard their ancestors worked to survive), psychological outcomes (e.g., pride and self-esteem), teaching youth how to create traditional technologies (e.g., fish nets), enabling youth to better fulfill community/cultural standards, and inspiring youth to live healthier lifestyles (e.g., eating healthier traditional foods).

There is a push in Quinhagak for young Yupiit to engage with their culture. At the school, a Yup'ik artist was hired to paint a mural of local elders to remind young people of their origins. Peggie, the principal, has turned the school's annual "culture week"— where students learn about Yup'ik culture, for example, by engaging in traditional subsistence or listening to elders' stories—into a monthly "culture day" to provide youth with a more immersive culture learning experience year-round. This emphasis on youth cultural engagement is largely driven by the physical and mental health benefits community members believe it has for youth.

Obesity is a problem in Yup'ik villages (Boyer et al. 2007). Community members know that getting young people to eat traditional foods, like salmon and seal (healthier options than processed foods at the store), can combat obesity. While O'Rourke was on a fishing trip with a local woman, she noted traditional subsistence activities, such as

berry-picking and hunting, provide youth with healthy food and engages them in exercise. Another elder with whom O'Rourke spoke felt younger community members were watching too much television, and that youth needed to play traditional Yup'ik games instead to stay healthy.

Yupiit in Quinhagak and elsewhere (Ayunerak et al. 2014) are concerned if young people do not learn about their culture, they will be at increased risk for mental health problems. O'Rourke had a number of conversations with community members about youth mental health. The general consensus in the community that is echoed in participants' interviews is that teaching youth about their Indigenous culture provides them with pride/self-esteem and a secure foundation upon which to construct their lives and identities. Like a boat tethered to a dock, without their traditional culture, they will "drift away" and become lost. This observation is similar to those made by Chandler and Lalonde (1998): Indigenous communities in British Columbia with greater "cultural continuity"—communities doing more to preserve/revitalize their Indigenous cultures, such as establishment of Indigenous governance, land rights claims, and Indigenous language education—have lower rates of youth suicide.

Workshops Affiliated with Nunalleq. Community members and program facilitators reported similar workshop outcomes among attendees. Community members perceive these workshops as being beneficial to participants by teaching practical skills (e.g., survival and technological skills), teaching youth to appreciate their heritage, providing beneficial psychological outcomes (e.g., self-esteem), and enabling them to better fulfill Yup'ik values (e.g., passing down knowledge).

As Jacqui noted, the practical skills acquired by participants through her workshops could help with future employment. O'Rourke learned through conversations with community members that people in Quinhagak are concerned with the trend of young people moving to larger population centres, such as Bethel or Anchorage, for employment. Jacqui's workshops addressed this concern by teaching skills (e.g., 3-D model making) that could enable youth to work online while staying in Quinhagak. Furthermore, archaeological skills learned by attendees during workshops could instill in them an interest in archaeology, another career that could also allow youth to work close to home. The Yukon-Kuskokwim River Delta region is rife with archaeological sites, many of which are threatened by erosion and rising sea levels, but only a few have been excavated.

Other skills workshops, such as those concerning subsistence or creating traditional technologies, could help young people survive in the wilderness. The Yukon-Kuskokwim River Delta is known for harsh environmental conditions (Kawagley et al., 1998). Learning how to shelter, clothe, and feed oneself in this environment (e.g., carving harpoons heads, weaving grass mats), or knowing how to navigate (e.g., place names, directions), could mean the difference between life and death.

The psychological outcomes that were noted by participants relating to pride/self-esteem and identity formation suggest CRE programs may help ameliorate the negative psychological effects of cultural trauma. Participants' assertions that CRE makes Yup'ik youth feel proud of themselves and their culture are consistent with research that has associated engagement and identification with traditional culture with positive psychological outcomes in Indigenous communities (Allen et al. 2014; Berman 2014; Big-Canoe and Richmond 2014; Chandler and Lalonde 1998; de la Sablonnière et al. 2011; Hallett et al. 2007; Harder et al. 2012; Henry et al. 2012; Kenyon and Carter 2011; Long 2014; Mason 2008; McIvor et al. 2009; Mohatt et al. 2011; Rasmus, et al. 2014a; Rasmus, et al.2014b; Usborne and Taylor 2010; Wexler 2006, 2009; Wolsko et al. 2007). Given the identity-related outcomes reported by participants, this association may be explained by cultural identity clarity theory, which posits having a clear perception and experience of one's culture enables one to form cohesive and healthy thoughts about oneself, others, and the world (Usborne and Taylor 2010). That is, CRE may bolster psychological wellbeing by improving cultural identity clarity.

Culture identity clarity theory also posits better fulfilling one's culture's standards of proper personhood (outcomes noted above) further strengthens mental health (Usborne and Taylor 2010). That is, learning about what it means to be a proper person in one's culture and fulfilling these values and norms enables people to construct meaningful lives, as well as supplies a source of self-esteem (e.g., hunting is important in my culture; I am a good hunter; therefore, I feel good about myself). Perhaps learning about their culture via CRE gives Yup'ik youth a sort of psychological "toolkit" (e.g., self and collective esteem, confidence) with which to face their problems. Although CRE's long-term effects have not been studied, it is possible learning about their culture may help Indigenous youth construct meaningful existences throughout their lives.

Suggestions for Future Culturally Relevant Education Programs

In terms of CRE suggestions, the theme discussed most by participants was "Connect to Heritage," which further demonstrates people in Quinhagak support connecting youth with Yup'ik culture. One area of concern is that young people need to connect with elders before they pass away. As Pauline put it, "our elders are dying, not going to be many left, ... interview them, print it ... so we can ... look at that book to find out ... what we need to learn." Having young people interview elders and documenting what they have to say in a physical or online format using text or video (like Jacqui did in her workshop series) is one way to teach youth about Yup'ik culture and preserve elders' knowledge. This approach is similar to the book Fienup-Riordan (2013) created in collaboration with elders and parents in Quinhagak that documented the village's history, oral tradition, and guidelines for youth. Involving young people in this process, though, could stimulate younger generations' interest in their heritage.

The workshop suggestion themes "Traditional Technologies," "Survival Skills," and "Language" further indicate that participants feel strongly that young Yupiit should learn about their traditional culture in order to both preserve it (e.g., the Yup'ik language) and enable youth to look after themselves in the wilderness.

Two of the three school personnel who participated in this study, Peggie and Alicia, suggested resources archaeologists could create to help children at the school learn about Nunalleq, one of which is to develop an online or hardcopy resource guide containing information about Nunalleq teachers that could be incorporated into curricula. Another suggestion is to make an online repository where projects completed by students about Nunalleq could be stored. Teachers could access this databank and get ideas for activities to do with their classes. It should be noted that interviews for this study took place prior to the opening of a museum in Quinhagak which highlights the Nunalleq project and Yup'ik history (Cotsirilos 2018). This museum, which displays artifacts and tells stories from the project, may meet the goals of community outreach and act as a databank for future CRE in Quinhagak.

The large number of suggestions (47) indicates people in Quinhagak have many ideas to implement CRE. However, some community members have conflicting opinions about what youth should learn. For instance, Keri had a positive opinion of Yup'ik dancing and stated, "I think [youth] would really like having a dance group again." However, when asked about dancing Sarah replied, "the missionaries stopped it 100 years ago, 'cause it's evil," and added she hopes dancing will not return. These excerpts indicate that Quinhagak is a community with a complex history, and community members have incorporated different aspects of the cultures they have been exposed to, in this case, traditional Yup'ik culture and influence from Christian missionaries, into their personal identities and values in variable ways. For CRE to be successful in Quinhagak, program facilitators must recognize these tensions and use them to start a conversation about collaborative community CRE planning.

Directions for Future Research

Researchers have noted further research is needed to determine how CRE should best be implemented (Castagno and Brayboy 2008; Lipka 2002; Malin 2003). However, because Indigenous communities vary in innumerable ways, the CRE suggestions we propose are specific to Quinhagak. Program planners attempting to implement CRE in other communities should first determine what persons in those communities feel youth ought to learn about to ensure CRE will best address each communities' unique needs.

As we have investigated community perceptions of CRE outcomes, the next step is to measure these outcomes to assess CRE effectiveness. By determining what community members and program planners in Quinhagak think are important youth

CRE outcomes, this study is a step towards the development of a framework to systematically evaluate CRE outcomes in this community. To evaluate CRE programs' effectiveness in a culturally-relevant manner in other Indigenous communities, researchers should also first ascertain (and then measure) outcomes community members feel are important.

Given this study solely focused on community perceptions of youth CRE outcomes in one Yup'ik community, research is needed to investigate whether a) other Yup'ik communities have similar perspectives on youth CRE outcomes and b) similar CRE outcome perspectives are held by community members in non-Yup'ik Indigenous communities. Additional research is needed to investigate the role CRE plays in young people's identity formation, as well as how CRE affects cultural identity clarity. By determining how CRE affects Indigenous youths' psychology, educators and program planners may design CRE programs that maximize benefits for Indigenous youth.

Limitations

This study has two limitations. First, due to logistics, such as budget and time constraints and recruitment difficulties, we were able to conduct ten interviews. Although the data we collected were rich and varied, it is possible points of view besides ones we discuss are held by some community members. Second, we were able to interview three program facilitators, which means there is some CRE affiliated with Nunalleq we could not describe.

Conclusion

One way to teach Indigenous youth about their culture and potentially improve their mental health outcomes is through CRE (Castagno and Brayboy 2008; Hesch 1999; Shay 2013). O'Rourke interviewed a number of community members and program facilitators in Quinhagak, Alaska to describe local CRE programs related to the Nunalleq Project and ascertain community perceptions of youth outcomes. Although the sample size was small, our results convey a diversity of opinions in the village. Community members and program facilitators attribute numerous practical, social, and psychological outcomes to youth CRE participation, such as improving self-esteem and confidence, learning survival skills, fulfilling Yup'ik cultural values, and instilling feelings of cultural pride. In other words, data analysis and community feedback captured in this study indicate the CRE programs in Quinhagak confer improved wellbeing in participants and provide social benefits to the greater Yup'ik community. The results of this study offer a starting point for researchers to systematically assess CRE outcomes in Quinhagak (and guidelines to do so elsewhere).

This study makes three additional contributions to the literature. First, our findings offer suggestions for future local CRE implementation that other Yup'ik villages and Indigenous communities can also draw upon. Second, our results contribute to the growing body of research that demonstrates the benefits of CRE programs in various Indigenous communities worldwide. And, third, our findings show that community-based archaeological projects, like the Nunalleq Project, serve as wonderful inspirations for CRE programs, as such projects can confirm oral history and provide artifacts and information current community members can engage with to connect to their heritage. It is our hope that other archeological projects will incorporate similar elements of community involvement and produce CRE programs for youth.

Acknowledgements

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[1] The meaning of the word 'Indigenous' in this paper is based on Shawn Wilson's definition in his book *Research is Ceremony: Indigenous Research Methods*, in which he writes: "[the label] Indigenous is inclusive of all first peoples—unique in our own cultures—but common in our experiences of colonialism and our understanding of the world" (2008:16). In accordance with Wilson's views, we decided to capitalize the "I" in Indigenous throughout this article as a show of respect for Indigenous peoples. This format is consistent with advice from an Indigenous scholar at the University of Alaska, Fairbanks.