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Atuarfitsialak: Greenland's cultural compatible reform

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In 2002, Greenlandic reform leaders launched a comprehensive, nation-wide reform to create culturally compatible education. Greenland's reform work spans the entire educational system and includes preschool through higher education. To assist their efforts, reform leaders adopted the Standards for Effective Pedagogy developed at the Center for Research on Education, Diversity, and Excellence (CREDE). The standards are principles of effective teaching and learning that have been researched in many other indigenous communities. This study investigated the early stages of Greenland's reform work of the public school to understand why reform leaders adopted the CREDE standards, and what constraints, if any, the standards posed in the Greenlandic context. The findings suggest the reform was initiated to further decolonize Greenland as a former colony of Denmark. The standards were adopted to assist in this process by increasing Greenlandic students' linguistic abilities, strengthening native culture and identity, and improving Greenland's labor market.

Keywords: Greenland; educational reform; cultural compatibility; self-determination

Social institutions have served as battlegrounds for dominant colonial powers and colonized people around the world (Loomba 1998). In many cases, educational systems have been used for hegemonic purposes as one of the main conduits for subjugation of indigenous people through reinforcement of dominant worldviews, beliefs, and norms (Ball 2004). Native educational leaders have begun to search for new approaches to education that capitalize on the strengths of their communities, which some have called a search for anti-colonial approaches to education (Ball 2004).

In line with other native communities, reform leaders in Greenland have recently launched an effort to transform their educational system to better fit the native Greenlandic population. This school system sits in contrast to the Danish-Scandinavian system that has been in place since the 1700s and has done little to advance the indigenous people. In 2002, the Greenlandic reform leaders decided to overhaul the entire system and subsequently launched a comprehensive, nation-wide reform effort to create culturally appropriate schooling. Greenland's reform includes the redesign of preschool through higher education, a feat in cultural compatibility unparalleled in other native educational settings. This reform is crucial for the survival of Greenlandic culture because like other indigenous

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people, the Greenlanders are teetering between two worlds, the one they know intimately and the one that is imposed on them from the outside.

To assist in their efforts, reform leaders adopted the Standards for Effective Pedagogy developed by researchers at the Center for Research on Education, Diversity, and Excellence (CREDE). Previously, the standards were adopted into educational contexts around the USA, including whole communities (Tharp et al. 1999) and insulated programs within schools (Yamauchi, Wyatt, and Taum 2005). Greenland represents the largest of all contexts to implement the standards and provides a unique opportunity to examine their implementation.

This study was an investigation into the early stages of Greenland's reform of the public school system, Grades 1–10, to understand why reform leaders adopted the CREDE standards, and what constraints, if any, the standards posed in the Greenlandic context. A secondary purpose was to document how the Greenlanders initiated their reform work to be used as a possible model for other native communities interested in creating culturally compatible education. The first section of this paper describes the two theories typically used to explain poor academic performance among native and minority students, which reformers typically use as a guideline to redesign their school systems. Following this introduction are a description of the CREDE standards and a brief history of colonialism in Greenland.

Explanations for minority student failure

There are two prominent models in the debate on how best to educate native students, the assimilative model and the culturally responsive model (Brayboy and Castagno 2009). The assimilative model aims to bring indigenous children into the mainstream educational system to prepare them for the life outside their communities. This approach has been highly criticized by native communities because it does not accommodate for students' unique cultural and linguistic needs. On the other hand, the culturally responsive model acknowledges the importance of language, culture, and identity in the process of education (Klump and McNeir 2005). These models shift teaching methods, curriculum, and school–community relations to be more culturally compatible with the native population. Many scholars advocate for culturally responsive models, including tribal communities and indigenous educational leaders (Beaulieu 2006; Demmert, Grissmer, and Towner 2006; Demmert et al. 2006; Klump and McNeir 2005).

Cultural discontinuity theory

There are two frameworks typically used to explain school failure among native and other minority students, 'cultural discontinuity theory' and 'socio-structural theory'. The cultural discontinuity hypothesis assumes that culturally based differences between the home and the school lead to 'conflicts, misunderstandings, and ultimately failure for those students' (Ledlow 1992, 23). Researchers use this theory to explain why some groups succeed in formal school settings and others, especially indigenous and minority students, do not (Gallimore and Au 1997; Garrett 1995; Vogt, Jordan, and Tharp 1993). This approach suggests that for some groups of students, transition to school is difficult because these differences are too overwhelming to overcome. Further, if these differences were minimized, then all students would have an equal opportunity to achieve academic success (Baker 1997; Tharp, Dalton, and Yamauchi 1994).

Cultural discontinuity theory focuses on the micro-level processes and interactions occurring in the classroom. There are two studies that provide the most evidence for the legitimacy of cultural discontinuity theory. Phillips' (1982) study with the Papago community documented how differences in classroom interaction and communication style can lead to misunderstanding. For example, in this community, students tended to avoid eye contact as a sign of respect. The teacher misinterpreted the students' aversion to eye contact as avoidance behavior, thus disrupting classroom communication. Phillips' (1982) study implied that classrooms need to take into consideration the culture of the larger community and provide more culturally relevant pedagogy, materials, and participation structures (Ledlow 1992).

The second often-cited study is the Kamehameha Early Education Program (KEEP) located in Hawaii. KEEP was a research and development group that aimed to investigate and improve native Hawaiians' academic achievement in the public school system. After exploring natal Hawaiian culture, researchers developed a literacy program that integrated patterns of instruction familiar to Hawaiian students. Once implemented, the literacy program was successful in raising their reading scores on standard achievement tests (Vogt, Jordan, and Tharp 1993).

To test the program's effectiveness, the KEEP researchers transferred the literacy program to classrooms in the Navajo Nation. On the surface, the two literacy efforts appeared to be sister programs, but deep structural differences in the new culture effectively rendered the Navajo effort ineffective. Tharp (2007–2008) concluded that cultural groups have preferences in their patterns of interaction and means of assistance that play out in joint productive activity and other instructional settings. The inability to transfer the Hawaiian literacy program to Navajo classrooms supported the idea that classrooms need to be considered for their specific cultural differences.

Socio-structural theory

The second framework often used to discuss minority student failure is socio-structural theory. Socio-structural theorists assert that any reason for minority student failure must take into account macro-level processes positioned outside the educational system, specifically in the racially stratified society and economy (Ogbu 1994). According to socio-structural theorists, minority students often experience social and economic contradiction, leaving them disillusioned and unsure of their place in society and the workforce. For example, the level of poverty that surrounds many minority students' families contradicts the notion that achievement and hard work will lead to economic success. This contradiction may lead to resistance and rejection of schooling and other services designed to assist minority students in navigating the system (Ogbu 1994). For this reason, socio-structural theorists urge researchers to move beyond the classroom to the historical and structural contexts of the larger community and the labor market to identify reasons for failure and ways to create change (Ogbu 1982).

Indigenous scholars, such as Kawagley and Barnhardt (1999), agree with socio-structural theorists asserting that reform in native communities cannot rely on shifting classroom practice and instruction alone. Rather, reform leaders need to examine how the rules of engagement were established and the ways in which they remain in place. Indeed, there has been much success on the part of indigenous people in reclaiming their schools once activities within the system are reorganized. However, the initial response by most groups has been, 'to accept the inherited structures without question

and perpetuate the Western systems that were put in place before, including their implicit forms of decision making, social stratification and control' (Kawagley and Barnhardt 1999, 117). For this reason, researchers such as McCarty (2009) advocate for a combination of ideas that include 'cultural discontinuity theory' with 'socio-structural conflict' to address educational reform in native communities.

Greenland

Greenland is the largest island in the world, covering an area of approximately 840,000 sq. miles (Darnell and Hoem 1996). The island extends from 83°39'N to 59°46'N and sits in the North Atlantic Ocean between northern Canada and Iceland. The climate is arctic to sub-arctic with cold winters and cool summers. About one half of the total land area is locked into the glacial icecap; the rest comprises coastal waters that are defined by deeply indented fjords and mountains.

Greenland's present population is believed to have originated with the North Alaskan Inuit who migrated to Greenland about 1000 years ago (Olsen n.d.). Vikings from Iceland had settled the land prior to the Inuit's arrival to Greenland; however, because of drastic climatic changes, only the Inuit survived. The current population in Greenland is around 57,000 with approximately 15,000 people residing in the capital city of Nuuk. The official language is Greenlandic, which is an Inuit language, but Danish dominates the administration, media and education, and thus, is spoken as a second language. Most Danes living in Greenland also speak English fluently, as do some native Greenlanders, though it is rare that English is used unless a visitor from another country participates in conversation.

Greenland's colonization

The story of colonialism in Greenland differs from that of other indigenous people in two ways. Often colonialism includes stories of warfare through oppressive military force, motivated by economic expansion (Loomba 1998). Greenland has had no military force used and according to most accounts, the process and experience of colonization were described as being rather peaceful (Petersen 1995). The reason may be that prior to contact with the Danes, the native community had no formal organization above the household level and thus 'lacked anyone who might be interested in defending his power' (Petersen 1995, 119). However, Gramsci (1971) argues that most ruling classes, such as the Danes in the Greenlandic context, do not use force or coercion to achieve their status. Rather, dominating groups create subjects who become willingly subservient.

The second way Greenland differs is that the native language was maintained. The Greenlandic language was not threatened in the same way that many other indigenous groups have experienced. This was due in part to written theological materials printed in a Greenlandic written orthography introduced by Kleinschmidt in 1871 (Kleivan 1984). Greenland has been very fortunate in this sense. The loss of language has been particularly devastating for many indigenous peoples, and the struggle for recovery has had varying degrees of success (Brayboy and Castagno 2009; Kimura 1983; McCarty 2009).

Although the Greenlanders have been lucky in preserving their language, the Greenland people experienced profound changes in their culture and identity with the arrival of Danish authorities. Kleivan (1984) wrote that the presence and activities of

the Danish colonial power greatly contributed to the emergence of a new Greenlandic identity. This shift began very early in Greenland's contact with Europeans, beginning with the arrival of the first Norwegian priest in 1721.

Additionally, the intermixing of Greenlandic women with Danish-Norwegian men gave rise to significant social shifts in Greenland's population (Kleivan 1984). The men in these families held top positions in the country such as ministers, tradesmen managers, and interpreters, and subsequently their families became known as 'the Great Greenlandic families'. Kleivan wrote that, 'First and foremost these marriages gave rise to a social differentiation that has not had many parallels in the colonial history of other parts of the Eskimo world' (1984, 525).

Denmark maintained colonial status over Greenland until 1953. In this year, a new constitution was passed in Denmark renouncing Greenland's status as a colony and redefining it as a county within Denmark (Petersen 1995). By 1979, Greenland established home rule government and quickly began to make changes to the educational system.

Educational reform in Greenland

Olsen, a prominent educational leader in Greenland, reflected that early educational reform efforts of the 1970s and 1990s did not achieve much success, as only adjustments were made to the Danish educational system. He wrote, the 'Greenlandic educational system has been grounded in cultural and educational antecedents from Denmark and elsewhere in Scandinavia, rather than building on the cultural competence and educational needs of Greenlandic students' (2005, 1). The latest reform, Atuarfitsialak, was to have clear performance standards while being firmly based in Greenland's culture and history. To assist in their efforts, reform leaders adopted the CREDE Standards for Effective Pedagogy, principles of teaching and learning that have undergone extensive research in native American communities (Tharp 2006).

The CREDE Standards for Effective Pedagogy

The Standards for Effective Pedagogy are principles of effective teaching and learning designed to help teachers maximize classroom interactions in ways that promote the learning of concepts and higher-level skills (Tharp et al. 2000). They were developed by researchers at the CREDE after more than 30 years of research on effective instruction for culturally and linguistically diverse students.

The standards are: (1) *joint productive activity*, teacher and student collaboration; (2) *language and literacy development*, language development across the curriculum; (3) *contextualization*, connecting to prior knowledge; (4) *complex thinking*, developing complex thought; (5) *instructional conversation*, teaching through dialog; (6) *modeling*, observational learning; and (7) *student-directed activity*, student decision-making.

The CREDE standards derive from Vygotsky's (1978) socio-cultural theory, which suggested that all higher psychological functioning has its roots in social interaction. By engaging in joint activity with more experienced others through symbols, such as language, children eventually appropriate those symbols. The standards have been well researched in native communities and are widely supported by native scholars and communities (Demmert, Grissmer, and Towner 2006; Demmert and Towner 2003; Klump and McNeir 2005).

Purpose of the study

The purpose of this study was to investigate the early stages of Greenland's reform of the public school system, Grades 1–10, to understand why reform leaders adopted the CREDE standards, and what constraints, if any, the standards posed in the Greenlandic context.

Method

Ethnographic techniques (Fetterman 1982) were employed in data collection, including participant-observations, semi-structured interviews, and document analysis. Greenland's educational system is nearly inaccessible to the outside world because of geographic isolation, language differences, and complicated political environments. Data were collected on-site over an 11-month period from August 2005 to June 2006. Follow-up checks were made extending to February 2007.

Participants

Participants included 11 key informants (Fontana and Frey 1997; Yin 2003) who were selected based on their employment tenure at Inerisaavik, the institute responsible for implementation of the reform. All 11 participants were involved in the reform in its initial stages or shortly thereafter, apart from one participant who had been working for Inerisaavik for only a few months at the time of his interview. Four of the 11 participants worked as consultants for Inerisaavik, advising teachers on curricular issues. Three were a part of Inerisaavik's leadership group, responsible for making decisions for the organization and delegating reform tasks to subordinates. Additionally, this study included two politicians from the Ministry of Education who wrote Greenland's legislation, which later gave rise to *Atuarfitsialak*. These nine participants were part of a highly educated and politically sophisticated group of Greenlanders who have been working for many years toward the goals of Greenland's independence from Denmark. In fact, a number of these participants were involved in the 1960s movement that resulted in the establishment of Greenland's home rule government. The final two participants were external consultants to Inerisaavik and had been involved in Greenland's reform for several decades. In place of their names, participants have been given pseudonyms to protect their identity.

Data collection

Data were collected using a variety of participation techniques (Angrosino 2005), including informal interviews (Fontana and Frey 1997) and document analysis (Hodder 2000). Participant observations were conducted on an on-going basis beginning in August 2005 and were used to capture various realities within the reform. Observations allowed for various complexities to emerge and informed further research questions (Alexander 1982). Semi-structured interviews made use of probing and open-ended questioning techniques in order to elicit richness in responses (Bogdan and Biklen 2003). These interviews were conducted in English and transcribed for analysis. Documents included 31 English translations of newspaper articles printed from 1999 to 2006 and governmental reports including legislation and minutes from key meetings leading up to the home rule government's decision. Finally, a master's thesis written by one of the participants was used to provide an

insider's perspective on the reform, often providing details that other participants could not comment on (Hindby 2005).

Data analysis

Constant-comparative methods were used to analyze the data. According to Cohen, Manion, and Morrison (2000), the constant-comparison method of analysis has its roots in grounded theory (Strauss and Corbin 1994) in which the process of data collection and data analysis is interactive, iterative, and can be revised with new information. Using this technique, data are collected by comparing social phenomena across categories and allowing new categories and dimensions to emerge.

As an outsider to Greenland's reform process, I deliberately refrained from creating codes and generating theoretical analysis until I was intimately familiar with the Greenlandic setting (Lofland and Lofland 1995). For the first five months, I embedded myself in the reform process as a way of understanding the direction of the reform and then deciding upon specific strategies to guide further inquiry. When I was ready to create codes, I began so by comparing my data, checking my hunches, and revising my categories to reflect emerging possibilities. I wrote memos throughout the research process as a way of guiding exploratory thoughts and developing ideas, as suggested by Charmaz (2008). In the analysis, these memos helped me to make sense of what I experienced as a part of the reform process and also create links in the data. Finally, I created tentative interpretations that were revised as new data were collected.

Validity was sought by triangulation (Creswell and Miller 2000). Themes that emerged from interviews and observations were cross-checked with newspaper articles and other historical documents. Prolonged engagement in the field also afforded opportunity to examine the data for verification. It is recommended that researchers spend at least 4–12 months of prolonged engagement in the field (Creswell and Miller 2000). At the time this study was written, 18 months were spent living and working among reform leaders in Greenland. Additionally, two peers were used for peer-debriefing in an attempt to check my process of meaning-making and knowledge production, an important consideration in using grounded theory (Greckhamer and Koro-Ljungberg 2005). These peers challenged assumptions, asked difficult questions, and assisted in clarifying themes in the study. One peer was an outsider to the Greenlandic community, and the other worked in a research capacity in Greenland.

My role as researcher

At the time of this study, I was recruited by Inerisaavik to assist in the implementation of the CREDE standards by providing professional development to reform leaders, designing a coaching model for the Greenlandic context, and researching the implementation of the standards in Greenland's classrooms. Prior to my arrival in Greenland, I worked as a researcher where I examined models of professional development for teachers using the standards to teach Hawaiian students.

I have no illusion of my role as a non-native researcher working in Greenland. I am aware of my position as an outsider and its bearing on data collection and analysis, and ultimately the write up (Smith 1987). Admittedly, a member of the Greenlandic community would have been better suited to conduct this work because of their cultural, linguistic, political, and social placement in society, an important point made by many prominent native scholars (Grande 2000; Kaomea 2001). In the end,

although it may not be enough to justify my role as a researcher in Greenland, I take a modicum of solace in the fact that I was asked to assist the community in their reform efforts and accepted only after visiting Greenland to ensure a good fit between researcher and the work requested. Kaomea (2005) reminds us there is an expiration date for non-native researchers working on behalf of indigenous communities. Our involvement as outside supporters is slowly coming to an end. Until then, our role is to work ourselves out of a job by building capacity and assisting native groups to achieve self-sustaining educational systems that meet their goals.

Results

Atuarfitsialak: Greenland's educational reform

The history of Atuarfitsialak

In 1998, the Ministry of Education declared the need for a new educational system in Greenland. The new system would be based on the language, culture, and history of its people and make a strong departure from the previous models imported from Scandinavia (interview with O.P., June 13, 2006). To ensure support for reform work, perspectives from far-reaching parts of the Greenlandic community were gathered (Hindby 2005). This process was made possible through a colloquium in which parents, teachers, school leaders, students, and community members were flown to a central location to express their views. In addition, leading experts on native education were invited from Canada, Norway, New Zealand, and the USA. This event was an important step in the reform's development because it solidified what the reform leaders already knew. The best approach to reform would draw from a model of culturally compatible education. The input gathered at the colloquium was later used to write Greenland's New School Act of 2002.

Atuarfitsialak and CREDE Standards

With the passing of the new legislation, reform leaders searched for a means to implement the provisions. Reform leaders were careful not to choose a model based in Nordic traditions because of a felt difference between European and indigenous socio-cultural traditions (interview with Carl, June 13, 2006). They considered many models before finally settling on the Standards for Effective Pedagogy developed by the CREDE. Reform leaders made this decision, in large part, because they saw compatibility between the Greenlandic context and the frames used in the model. The director of Inerisaavik explained they wanted a pedagogical model that focused on the 'connection between education and the culture' that could be used to strengthen the students' academic experiences and one that focuses on increased language development (interview with Jacob, September 26, 2005). He explained the reform leaders' deliberation process below:

Yes, we looked after the Danish way and the Nordic way too. But, they are not so [focused] on the language because they ... have one and we have two. They also have a very democratic way to build the classroom. Their understanding of democratic [participation] ... is that the students have possibility to do what they want in the classroom. I think it is important that the student[s] have possibility, but the teacher needs to be more specific about the instruction. I think it is very important how to instruct student[s] when the students have different cultural backgrounds and different language backgrounds ...

[Also,] the connection with the ... parent's home and the school ... the distance has to be as short as possible. (Interview with Jacob, September 26, 2005)

Reform leaders adopted CREDE pedagogy viewing it as a shell for the Greenlanders to mold and fill with Greenlandic values and culture (Ronald, pers. comm., May 8, 2007). The model would serve two purposes in Greenland: to strengthen pedagogical practices in the public school and to promote Greenlandic culture and identity.

Reform goals

Educational goals

Proficiency in Danish is one of the goals set forth by Greenland's New School Act. Typically, students are taught in the Greenlandic language throughout their public school education, but later switch to Danish in postsecondary school. The incongruity of languages has caused many barriers for students and contributed greatly to Greenland's dropout rate (Gunther 1972). Not surprisingly, the number of Greenlandic-speaking students who finish their postsecondary education is low. In 1994, 43% of citizens who only spoke Greenlandic had less than seven years of schooling, 56% had completed Grades 1–10, and only 1% had pursued and graduated beyond compulsory educational requirements (*Sermitsiak* 2000b). Reform leaders hoped to ameliorate the high dropout rates by creating language-rich classroom environments for students to develop the linguistic skills necessary for higher education.

There were at least two possible reasons for the low levels of Danish proficiency. First, Greenland lacks a high number of formally educated teachers. In the school year 2005–2006, one third of the teaching force lacked teaching qualifications (Directoratet for Kulture, Uddannelse, Forskning og Kirke 2006). Of the 377 uneducated teachers in the school system, some had the equivalent of a high school level of education or had been educated as far as an associate's degree. Many of these less-prepared educators taught in settlements where access to Danish speakers was rare. One Greenlandic participant described the difficulty students in outlying communities have in learning the language: 'Maybe in your village, there are only one or two Danes if there are any at all, and you are not in contact with them in your everyday life' (interview with George, March 3, 2006). Limited access to Danish speakers and a lack of trained teachers may have contributed to Danish being taught as a school subject and not an everyday language.

Another possible reason was offered by a Danish participant who expressed a difference between Greenlandic patterns of communication in and out of school. She commented that many Greenlandic children are not accustomed to engaging in dialog at home. For this reason, it is difficult for teachers to develop authentic language activities to develop the target language. Below, one participant elaborated on this subject:

[The students] do not have the background ... I have discussed this with my colleagues, who ... grew up in the villages where there is not a lot of discussion and dialog. Parents do not discuss with their children, they talk to the children. And, so what do you do if the teacher grew up in a family like that? (Interview with Lenora, February 10, 2006)

The CREDE standards were viewed as an important part of reform work, particularly where language-learning was concerned. Reform leaders believed reorganizing students to learn in small groups would afford better opportunities to attain Danish

than what had previously been tried. In their opinion, Greenlandic students needed proximity to the instructor and engagement in meaningful activity to learn. Teachers needed to model the language and structure activities for students to practice. In their opinion, if these provisions were made, students would have a better opportunity to learn the skills needed to succeed in postsecondary education.

Cultural goals

Although strengthening Greenlandic identity and culture was not an expressed goal in the Greenlandic legislation, reform leaders consistently mentioned it as a goal of Atuarfitsialak. Revitalizing Greenlandic identity has been a priority since the abolishment of Greenland's colonial status but even more so with the establishment of Home Rule (Goldbach and Winther-Jensen 1988). One participant explained that it was a political value of the 1970s through the 1990s that the design of activities had to be Greenlandic: 'As a nation we had to improve our identity by working with our language and culture' (interview with George, March 3, 2006). This idea of 'Greenlandizing' the school system was carried forward into reform development.

Reform leaders expressed that previous models from Scandinavia have been damaging to Greenlandic identity. One participant commented that only a few Greenlanders have been able to succeed in the old system. Their success was attributed to the ability to assimilate into the dominant culture: 'We have been able to learn Danish, speak Danish, read Danish and act Danish. That is why we ... succeeded in the Danish system' (interview with Fletch, May 26, 2006). The consequence of not assimilating was the adoption of a negative self-image. One participant explained, 'That is another heritage from the Danish colonialist way of looking at Greenlanders. There are only some Greenlanders who can really develop to become real Europeans; to become [full of] pride and intelligent individuals' (interview with George, March 3, 2006).

Initially, the CREDE standard *contextualization* was thought to be the best method of bringing culture into the classroom. *Contextualization* couches new material in students' prior knowledge from home, school, and their community in order to create meaningful connections between known and unknown material (Tharp et al. 2000). Yamauchi, Wyatt, and Taum (2005) describe it as teaching in ways that are consistent with socialization patterns and also using the curriculum to integrate academic concepts with students' background knowledge.

According to Greenlandic reform leaders, *contextualization* was thought to be *essential* in the instruction of Greenland's indigenous population, specifically because many students are not accustomed to relating to academic topics. One participant expressed the need for teachers to contextualize because students' home life was not considered enough in reform development. He stated that the new school system was 'built up on another kind of student ... [a] normal student, maybe a normal European student' without giving enough attention to the needs of the Greenlandic student (interview with Fletch, May 26, 2006). He felt issues of abuse, neglect, and violence that characterize many Greenlandic students' lives were largely unconsidered in the early stages. Therefore, unless teachers contextualized academic activities, the needs of these students would remain unaddressed.

The standard of *modeling* was seen as another way of bringing culture into the classroom. Research indicates that modeling is a powerful form of assistance, shown to be highly effective in the teaching and learning of indigenous communities (Tharp 1997;

Tharp, Dalton, and Yamauchi 1994). CREDE's strong support of modeling comes from research by Cazden and John (1971), among others, who characterize American Indian children's preference for learning to be 'more visual than verbal, more learning by looking than learning through language' (Cazden and John 1971, 256). For these reasons, Greenlandic reform leaders viewed modeling and demonstration as a cultural strength to be built upon in reform work.

Political and economic goals

Greenland's educational reform also had political and economic aims. Atuarfitsialak, an educational reform on Greenlandic terms, sent a deliberate message of independence, political autonomy, and self-determination to Denmark (Olsen 2005). By designing and implementing a reform on Greenlandic terms, the country further asserted its autonomy and distance from its former social status as a colony of Denmark. The leader of Inerisaavik explained:

[W]e have been part of Denmark and before that, a colony of Denmark ... We are [trying to be] ... more independent. And therefore, I think it is necessary that we start somewhere, and [the] school is the best [place to] start to be more independent. (Interview with Jacob, September 26, 2006)

In addition to taking control of the school system, Greenland wanted to take more responsibility for its employment and labor industry (KIIP 1998). One of the expressed goals of Atuarfitsialak was to replace the positions Danes currently occupied with educated Greenlanders. Danes are often hired, in part, not only for their fluency in Danish (Tremel 1998), but also for their ability to assist students in advancing to higher education (Lenora, pers. comm., January 18, 2006). Typically, these Danish teachers are placed in the upper high school grades (8–10), where Danish language development is emphasized, and teaching activities focus on passing exit exams. Unfortunately, many of these 'visiting' Danish teachers leave their positions before contracts are fulfilled, often without suitable replacements. In one of the foundational reports supporting Atuarfitsialak, leaders reported that every year there were approximately the same number of teachers coming and leaving Greenland (KIIP 1998). Reform leaders hoped that creating a school system that supports Greenlandic culture and identity while simultaneously preparing students for postsecondary education would produce its own labor market. The CREDE standards were viewed as the primary means for achieving these goals.

Reform constraints

In the first few years of Atuarfitsialak's implementation, several constraints emerged. To begin, reform leaders were uncertain if the CREDE standards could be effectively implemented in all parts of the country, particularly in settlements where schools are geographically isolated (interview with Chris, February 10, 2006). Many of these smaller communities have very little infrastructure and resources to implement the new legislation. In settlements, schools tend to be organized into 'one-room schoolhouses', where typically teachers do not receive specialized pre-service training to teach multi-grade level classes. Left to their own devices, many teachers tend to overemphasize large-group lectures and rote memorization and other passive instructional strategies (McEwan 2008). One Danish participant expressed that

students living in these isolated communities lack the opportunity to broaden their horizons and expand their minds because of their limited access to the rest of the world (interview with Lenora, February 10, 2006). Further, if the standards could not be implemented in the settlements, reform leaders would miss the very students the reform was targeting.

Additionally, although the CREDE standards were officially adopted to implement the New School Act, teachers in Greenland were given, by law, the freedom to choose other teaching methods so long as they met the criteria in the legislation (KIIP 2001). 'Freedom of method' made it nearly impossible to develop a single strategic plan for reform implementation, not to mention the diversity between settlement, town, and city schools. Subsequently, those schools that had adopted the standards did not feel they received enough support to effectively implement the new teaching methods (field notes, April 24, 2006). Reform leaders admitted they did not include school leaders enough in the initial stages of development to ensure their collaboration, but realized this too late (Hindby 2005).

There also seemed to be a difference in the way the two cultural groups of reform leaders approached the process of implementation (Wyatt 2009). Greenlandic reform leaders wanted to implement the standards immediately and make adjustments after they were in place. Danish reform leaders, on the other hand, wanted to ensure proper understanding and interpretation on the front-end to avoid potential problems in implementation. From the Greenlandic reform leaders' perspective, Danish reform leaders were argumentative and resistant. Tharp (2007–2008) noted that cultural groups have preferences for patterns of interaction in activity, which serves as a possible explanation for why Danish and Greenlandic reform leaders approached implementation differently.

Cultural differences between the two groups may have also contributed in another way. Both publicly and privately, Danes and Greenlanders made several comments about the other group's lack of skills in reform implementation. For example, off-handed comments were made by Danish teachers regarding Greenlandic colleagues: 'Greenlandic people are not asking for help because if they do, this is saying that they are not good enough' (field notes, September 26, 2005). Other comments were made publicly, such as one published in a local paper. In an article written by the former head of the Teacher Training College, it was stated, '[I] would rather have a proficient Danish teacher than a poor Greenlandic one' (*Sermitsiak* 2000a).

And finally, aspects of the Greenlandic culture were identified as constraining the school system and making it difficult to implement *Atuarfitsialak*. For example, one Greenlandic participant explained that *sila*, the Greenlandic concept of intellect or mind, acts as a barrier to parental involvement. According to this participant, in the traditional Greenlandic hunter society parents believed that a child's *sila* was something that developed automatically as the child matured (interview with Fletch, May 26, 2006). He explained that even in the present day, Greenlandic parents tend to defer to *sila* for providing their children with direction in life. This cultural belief poses a problem because parents provide little advisement to their children, and instead defer to the child's *sila* for guidance:

We still meet parents saying it is okay let him play for himself. Let him do what he wants. When the time comes, he will get his *sila*. It means that we will get some young people who still are doing what they want ... and it is okay. If they stop schooling it is okay because when they get their *sila*, then maybe they will continue. (Interview with Fletch, May 26, 2006)

Reform leaders anticipated that the CREDE standard of *contextualization* would greatly assist students in bridging their academic and home lives. Further, reform leaders suggested parents needed to learn how to support their child through the educational system, if Atuarfitsialak was to be successful.

Discussion

Cultural compatibility and Indigenous school reform

The results of this study indicate that Atuarfitsialak, Greenland's educational reform, is similar to reform efforts initiated by other indigenous groups (Brayboy and Castagno 2009; Lipka 2002; Rivera and Tharp 2006). Around the world, native communities are looking for ways to develop their children into future leaders while preserving cultural traditions (Rivera and Tharp 2006). Currently, culturally compatible education is viewed as the most viable means to accomplishing this goal, but thus far, little has been documented on how native communities approach this task. This study extends our understanding of how one indigenous group is approaching culturally compatible education by documenting the early years of Atuarfitsialak.

Connecting with other native reforms

While Greenland's reform shares many similarities with other native efforts, findings from this study indicate Atuarfitsialak differs in at least one marked way. Unlike reforms in other communities, the Greenlanders are not trying to revitalize or strengthen the native language. Greenlandic is safely entrenched in society in part because it is used as the primary language for instruction in the public school (Hindby 2005). Rather, one of the expressed goals of Atuarfitsialak is to strengthen students' ability in Danish. The Greenlanders are fortunate that there are adequate materials available in both languages. Many native groups, such as the Inuit in Nunavut, lack culturally and linguistically relevant materials written in their native language (Berger, Epp, and Moller 2006). Communities such as these struggle to keep their native language, especially when schools are staffed with teachers from outside the community who have no concept of the local people or culture (Berger, Epp, and Moller 2006).

Strengthening Danish is an interesting aspect of Greenland's reform, given reform leaders' desire to create cultural compatibility. Many educational programs in indigenous communities tend to focus on shifting the language and content within the classroom in hopes of better expressing the native culture (Stairs 1994). Arguments in favor of changing the language of instruction are based on the idea that having a stronger presence of culture in the classroom will in turn strengthen identity (Demmert and Towner 2003). However, strengthening identity is a complicated process and may not be achieved by making change only within the classroom (Stairs 1994).

My findings show reform leaders in Greenland are only using 'cultural discontinuity theory' to address educational change. By focusing only on classrooms, the barriers preventing students from achieving success may remain unresolved. McCarty (2009) recommends educators combine aspects of 'cultural discontinuity theory' and 'socio-structural theory' when attempting to shift education in native contexts. A combination of these two theories gives educators the best chance of addressing obstacles because it examines barriers in the classroom as well as in broader society. When addressing change in the community, educators are urged to examine the macro-structural and

historical forces that keep students from advancing (Ledlow 1992; Ogbu 1982). In Greenland, this focus should include how the effects of colonialization have constrained Greenlanders in advancing into economically desirable positions.

Educational reforms and their constraints

Shared representation of history

The results of this study are consistent with Datnow's (2000) findings on the political nature of educational reform. In this study, Danish and Greenlandic participants cited different reasons for why Greenland initiated reform. More specifically, while all participants agreed Greenland's educational system was in need of much-needed change, reform leaders did not view Greenland's history in the same way. Greenlandic participants viewed Greenland through a lens of colonization, as evidenced by comments regarding the reasons and goals for Atuarfitsialak. Often, Greenlandic reform leaders referenced the continued colonial presence in Greenland's classrooms and the effect it has on student learning and identity. In contrast, Danish participants never mentioned colonization or the effect it had on present-day Greenland. It appeared that many Danes compartmentalized that aspect of Danish-Greenlandic history as a mere historical fact without reflecting on the deeper psychological or social consequences of their participation in colonization.

The lack of a common representation of history may help to explain some of the tension between Danes and Greenlanders captured in this study. Liu and Hilton (2005) explain that a common perspective or experience is important because it allows cultural groups to establish a shared reality. Shared social constructions allow for everyday understandings to be taken for granted, and as such are hardly ever the source of contention (Liu and Hilton 2005). When cultural groups do not have shared representations, miscommunication and lack of coordination often result.

This study provides further confirmation that issues related to colonization, and its aftermath, take a long time to resolve or may never be resolved. Just because the colonizing government pulls out physically does not mean the formerly colonized group is able to easily establish a new way of living and being in society. Patterns of behavior and thought continue to hold these groups in fixed realities long after the physical presence has been removed (Loomba 1998).

Educational reform and building capacity

Another finding from this study is that participants felt parents and administrators failed to see their role in the reform's implementation, and their lack of involvement slowed progress. This finding confirms the work of others, such as Datnow (2002), who found that when key groups are not included in initial decision-making, reform success is unlikely. Reform leaders must include all stakeholders whose role is to provide on-going consultation and input throughout the planning and implementation process (Datnow and Stringfield 2000).

Given that Greenland's reform leaders consulted and involved the community only in the planning phase, the success of Atuarfitsialak may rest on the extent to which reform leaders are able to build capacity for change and re-engage the community at-large. According to Fullan (2000), such an effort at capacity building is a necessary investment to sustain change, but may be imperative in Greenland where most of the responsibility continues to rest in just a handful of individuals.

Recommendations for future research

In Greenland, reform leaders are initiating change at a unique starting point when compared to many other indigenous efforts. Atuarfitsialak aims to develop native culture, not language in the classroom, and for this reason may be an ideal setting to examine how pedagogy influences a felt sense of cultural presence in the classroom. At a point when the CREDE standards are fully implemented, future research should examine how, and the extent to which, students and teachers feel their culture is expressed. Results could further enhance our understanding of how to approach the transformation of native classrooms, given the varied contextual differences of reform in native settings.

Following the suggestions of Agee (2002), future research might also examine how colonization continues to be referenced or ignored by both the cultural groups and the extent to which the CREDE standards assist in addressing cultural tension in the classroom. Results from such a study may assist other native groups grappling with issues related to educational reform in post-colonial settings. Finally, future research in Greenland should examine how community members are included in the process of change and the effect this has on Atuarfitsialak's success.

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I would like to extend my gratitude to the people of Greenland for welcoming me into the community and the leaders of Inerisaavik for entrusting me with their story. I wish you luck in finding yourself on this journey. *Tamassinut qujanaq* [Thank you, everyone].

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