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Universal Design for Learning (UDL) as a Structure for Culturally Responsive Practice

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Abstract

Alaska is rich with cultural and ethnic diversity. In fact, it is one of the three most diverse parts of the country. Culturally relevant practice both needed and required in Alaskan schools. Universal Design for Learning (UDL) is a framework that may assist educators in this endeavor. While UDL provides a framework for implementing instruction, the Alaska Cultural Standards for Educators tell us what best practice looks like for our diverse student population, especially our Alaska Native students. This article explores examples of implementation of the Alaska Cultural Standards for Educators within a UDL framework.

Keywords

culture, universal design for learning, culturally responsive practice, education

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Alaska is rich with cultural and ethnic diversity. In fact, it is one of the three most diverse parts of the country. Culturally relevant practice both needed and required in Alaskan schools. Universal Design for Learning (UDL) is a framework that may assist educators in this endeavor. While UDL provides a framework for implementing instruction, the Alaska Cultural Standards for Educators tell us what best practice looks like for our diverse student population, especially our Alaska Native students. This article explores examples of implementation of the Alaska Cultural Standards for Educators within a UDL framework.

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Introduction

Alaska is a state that is rich with cultural and ethnic diversity. In fact, the country's three most diverse census tracts are all in Anchorage, followed by a handful in New York (Basu, 2016). Culturally relevant practice is not just needed for the students being served in Alaskan school districts, it is required. According to the World Indigenous People's Conference on Education (WIPCE, 1999):

> Most all Indigenous peoples, and in particular, those who have suffered the impact and effects of colonization, have struggled to access education that acknowledges, respects and promotes the right of Indigenous peoples to be indigenous--a right that embraces Indigenous peoples' language, culture, traditions, and spirituality (p. 1).

This statement was true in 1999 when it was written and is still true today. Educators and administrators are constantly looking for strategies to best support their diverse student population by providing systemic change in school culture and moving away from deficit models. Universal Design for Learning (UDL) is a framework that may assist educators in this endeavor (Echevarr´ıa & Graves, 2011; Hernandez Finch, 2012; Mellard & Johnson, 2008).

Universal design is a concept that comes from the field of architecture. In 1997, a working group of architects developed seven principles of design in order to guide the design process to produce usable products and environments. These seven principles were: (a) equitable use; (b) flexibility in use; (c) simple and intuitive use; (d) perceptible information; (e) tolerance for error; (f) low physical effort; and (g) size and space for approach and use (National Disability Authority, 2014). Once these principles were consistently being utilized to guide design, researchers and the public began to notice that the elements were not just benefitting those with disabilities but were improving access for everyone. For example, curb cuts were initially designed to allow those who utilize a wheelchair for mobility to move off of a curb safely. A mother pushing a stroller or a worker using a dolly also experienced an increase in accessibility. By designing environments to assist one group, others outside of that group also found improved access. This concept of Universal Design for Learning (UDL) came from architecture design work. UDL is a set of principles for curriculum

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development that give all individuals equal opportunities to learn (National Center on Universal Design for Learning, 2012). UDL celebrates variability and diversity of learners and plans for reaching all students (including Indigenous student populations) from the beginning of the design process.

While Universal Design for Learning provides a framework for implementing instruction, the Alaska Cultural Standards for Educators (2012) tell us what best practice looks like for our diverse student population within Alaska, especially our Alaska Native students. These six standards have been developed by the Alaska Native Knowledge Network and adopted by the Alaska Department of Education & Early Development can be found in Table 1: *Alaska Cultural Standards for Educators* (2012).

Table 1

Alaska Cultural Standards for Educators (2012)

Standard A	Culturally-responsive educators incorporate local ways of knowing and teaching in their work.
Standard B	Culturally-responsive educators use the local environment and community resources on a regular basis to link what they are teaching to the everyday lives of the students.
Standard C	Culturally-responsive educators participate in community events and activities in appropriate and supportive ways.
Standard D	Culturally-responsive educators work closely with parents to achieve a high level of complementary educational expectations between home and school.
Standard E	Culturally-responsive educators recognize the full educational potential of each student and provide the challenges necessary for each of them to achieve that potential.

The author wondered whether or not it is possible to implement the standards within a Universal Design for Learning framework. This paper will examine the research and attempt to answer this question by looking at the principles of UDL, multiple means of engagement, representation, and expression, and how the standards would fit into this framework.

Multiple Means of Engagement

In UDL, providing multiple means of engagement is one of the three principles of the framework, and, in regards to culturally relevant practice, can be considered the most important principle. The goal is for every student to have access to learning, gain persistence when challenges arise, and build self-knowledge (Meyer, Rose, & Gordon, 2014).

We know that like many Indigenous populations, Alaska Natives have faced abuse, forced assimilation, and loss of their culture with the influx of Western educational systems moving into their communities and usurping the education of their children. It is not surprising that this has left an entire population of people who are disengaged with schools and formal education in general. In Anchorage School District, Alaska's largest, the four-year graduation rate for Alaska Native and Native American students was 63.2 percent in 2017 (Hanlon, 2017). In order to reengage students, there must be a safe learning environment with relevant instructional content that builds off of the students' background knowledge and works to create expert learners.

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Safe Learning Environment

Educators intuitively understand the neuroscience around the necessity for the learning environment to be safe. Safety comes when people connect with other people who treat them well. When the brain feels safe, it secretes a bonding hormone called oxytocin. This hormone drives the desire for humans to build relationships with the person which whom they are interacting. Building rapport is a large component of building relationships which create safe learning environments and support student engagement. The relationship building can be simple—a smile or nod from the teacher, a pat on the back or arm. All of these simple gestures stimulate the release of oxytocin (Hammond, 2015). Barnhardt researched three Athabaskan teachers in a rural Alaskan school that was, by western assessment measures, deemed successful (1981). While the researchers did not see instruction or curriculum that differed greatly from typical schools, they did notice a difference in the way the teachers engaged with students. They referred to this as "tuning-in" and noted the teachers tuning-in with the rhythm of their speech and body movements by listening to individual students. The Alaska Cultural Standards for Educators (2012) address creating rapport specifically with Alaska Native students. Standard A includes the charge that culturally responsive educators to recognize both the validity and integrity of the Alaskan Native knowledge system. One example used in the standards is for teachers to greet and address students in a similar manner that those students are greeted by parents and

elders in their community (Alaska Department of Education & Early Development, 2012). The standard is directly tied to the concept of "tuning-in" and is a critical aspect in the creation of a classroom environment where Alaska Native students feel safe and confident in their learning.

Affirmation & Positive Reinforcement

Affirmation and positive reinforcement are two other components of building relationships. Behavioral modification systems in today's schools are highly individualistic and based off of the principles of Applied Behavior Analysis (ABA). ABA uses the systematic application of interventions to improve behaviors to a meaningful degree; in addition, one key aspect of ABA is to demonstrate that the chosen interventions are responsible for behavior improvement (Baer, Wolf, & Risley, 1968). Indigenous behavioral modification methods connect to the same ABA principles. The difference is in who delivers the positive reinforcement. In our current educational system, acceptable behavior is met with some type of reinforcement from the teacher. This could be a tangible reinforcer (i.e. a certificate for good behavior), a social reinforcer (i.e. praise or good grades), or an activity reinforcer (i.e. extra recess). Unacceptable or negative behavior is typically met with punishment, such as removal from class, loss of recess, expressions of disappointment from the teacher, or even poor grades.

Indigenous behavioral modification systems also employ positive reinforcement, but delivered at the community level and by more than one person.

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Traditionally, the entire village was responsible for teaching and reinforcing acceptable behavior and calling out individuals on their unacceptable actions. The methods used were unique to the community. One example of this type of behavior modification is the use of dance and other public interventions in Yup'ik communities (Barker, Fienup-Riordan, & John, 2010).

Moving to community-level positive behavioral supports would be a more culturally-relevant system for many students, including those from Indigenous backgrounds. Standard C includes an example of providing affirmation specifically to Alaska Native students, advocating for culturally responsive educators to be immersed in the communities in which they teach. Within that immersion, teachers should actively engage and contribute to the community. One example used in the standard would be for educators to host community celebrations (Alaska Department of Education & Early Development, 2012).

Engaging Families

Finally, family engagement is another component of building a safe learning environment. Yet, communities have different ways that they demonstrate engagement. "In America, the dominant culture is individualistic, while the cultures of many African American, Latino, Pacific Islander, and Native American communities lean more toward collectivism" (Hammond, 2015, p. 25). One component of collectivist culture can be found in Standard D and is the expansion of the teacher-student relationship to include family, community, and

nature in which a culturally responsive teacher promotes active and constant interactions between the community and parents in a child's education. The standard uses as an example an educator who engages with the community and uses that community engagement as a way to plan and engage families and community members in the educational programs in and beyond the school setting (Alaska Department of Education & Early Development, 2012). The methods used by school teams to reach out to families and engage them in school activities are only effective if they are culturally responsive to the families' needs and considered valid by the families who they seek to engage. Methods that work for middle-class, Caucasian families in the school (e.g., emails) may not work to reach families who are not in that demographic. Okakok (1989) described parental involvement as a challenge for North Slope Borough School District in Utqiagvik, Alaska. Okakok wrote:

> Once a teacher is identified, parents do not interfere. This was often misinterpreted by educators to mean that the parents did not care about their child's education, when, in fact, they were doing what they felt was in the best interest of the child (p. 417).

The author explained that teachers need to communicate with the parents and community that their knowledge and skills are valued as an important part of the child's education. School was not always a positive experience for many of the

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parents in the community; teachers can use positive interactions to build new relationships between parents and school (Okakok, 1989).

Nguyen (2012) found in a study of strategies to support English Language Learners with learning disabilities that having an "open-door" policy where families were welcome at any time made parents feel included in the school. It was important to encourage parents to send notes or call with questions or concerns in order to keep an open line of communication. Griner & Stewart (2012) provide educators with examples for engaging families from culturally and linguistically diverse backgrounds, including home visits and regular phone calls to gain insight into students' lives and support systems, as well as to garner parent and family input in the decision-making process. In addition, they suggest that parents, families, and community members are invited regularly into classrooms and that school staff makes continuous, positive contact even when school is not in session, and that school staff celebrate special events in students' lives (Griner & Stewart, 2012; James, 2017).

Make Learning Relevant

Making learning relevant addresses two different aspects of education. First, the education that students receive must be relevant to the world around them and serve them as they go out into their community and become citizens and leaders. Currently, our educational system defines success as making good grades, scoring high on assessments, and getting higher and higher levels of education as

evidenced by the assessment data reported on school report cards and utilized for awards such as National Blue Ribbon Schools (U.S. Department of Education, 2018). School report cards use student standardized assessment data in content areas to compare the quality of the schools by country, state, and district while the U.S. Department of Education awards schools with the title of National Blue Ribbon Schools for areas such as having the highest high school graduation rates in the state and the highest achieving students (the top 15%) in English and Mathematics, measured by state assessments (U.S. Department of Education, 2018). Even for many non-Native students, this leads to strengths and interests being overlooked and undervalued. This message tells our students whose skills lie in areas such as art, caregiving, crafting, hunting, cooking that they do not have what it takes to be successful. Instead, schools should reinforce that society needs people who have strengths in all of these areas. Not only would there be economic benefits, but it students would feel like they have a role in their community. Redefining success is one of the core principles of culturally relevant education.

Kawagley (2006) interviewed Yupiaq elders and explains that Native students are at a distinct disadvantage in the educational system because they are expected to fit into the dominant United States culture and that their own Yupiaq culture is considered primitive and useless. This devaluing by the educational system teaches students that the traditional ecological knowledge being taught by

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their elders, family, and community is substandard to the instruction in schools. The students then, in turn, lose interest in learning traditional ecological knowledge and when they graduate they have no way to contribute to their village through subsistence and cultural activities. Kawagley goes on to explain that those who go on to higher education have no place in the village when they return because there is no job market. The elders said that the students should be taught both cultures. Standard E attempts to address this conflict and states that culturally responsive educators should take on the responsibility of reinforcing the student's cultural identity and place in the world. One example provided in the standard is for educators to develop a project around comparing and contrasting leadership styles between dominant and community cultures. Specifically, Standard E states that, "Culturally responsive teachers acquaint students with the world beyond their home community in ways that expand their horizons while strengthening their own identities" (Alaska Department of Education & Early Development, 2012, p. 35).

Second, the educational content that the teacher is using on a day to day basis must be relevant to the students. Hammond (2015) explains that students are constantly being bombarded with sensory information while they are simultaneously trying to attend the instruction going on in class. Their reticular activating system (RAS) is able to filter out some of this input so the student can attend to the important aspects of the lesson. As teachers, we must make the

lesson important to the students by making it relevant and interesting. One way that curriculum can be made more relevant is to make learning based on every day and real-life experiences (Kawagley, Norris-Tull, & Norris-Tull, 1998). Real-life experiences are what elicit a strong emotional response from a student. The experiences stand out, foster engagement, and make students feel safe.

Another important way that curriculum can be made relevant is for students to be adequately represented. Ongtooguk describes the curriculum of the schools in which the author was educated as being "virtually silent about us, our society, and the many issues and challenges we faced as a people caught between two worlds" (Ongtooguk, 2017, p. 1). Alaska Native history was not taught as a part of American history. Ongtooguk returned to rural schools as a teacher to discover that although things had improved, the Alaska Native history and culture curriculum was prepared by white educators and focused mainly on traditional native crafts (Ongtooguk, 2017). The lack of relevant curriculum for Alaska Native students has been tackled by many different entities within Alaska. For example, the University of Alaska Fairbanks has developed a math curriculum based off of Alaska Native principles of measurement and calculation entitled Math in a Cultural Context (University of Alaska Fairbanks, 2017). Many school districts, such as North Slope Borough School District, have begun grass roots efforts to develop their own curriculum that meets the state standards and is also culturally relevant to the student they are serving. The difficulty with this is that

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Alaska is a large state with many isolated communities, so the efforts that are being led in one area of the state may not be carried over into others as there is not one repository for all of the curriculum being designed. Another problem is that Alaska is very diverse and each community may have a different Alaska Native group living there which comes with a different set of traditions, values, and expectations.

The Alaska Cultural Standards for Educators approaches the relevance of instruction in Standard A by requiring that teachers utilize the knowledge of Elders in their instruction. One example given is that the "educator confers with and involves Elders and Culture Bearers when developing and implementing lessons in all curricular areas" (Alaska Department of Education & Early Development, 2012, p. 7). The elders in the community are vital to learning and growth. They have lived through many of the experiences that we will be going through in the future and have had many years to reflect on those experiences. They are our first and most important teachers. Kawagley and Wilson both describe the role of culture in education from their own unique perspectives in the Yupiaq and Gwitch'in cultures, respectively (Kawagley, 2006; Wilson, 1994). One idea that was central within both of their descriptions was the role of elders. Wilson interviewed Gwitch'in elders for the study *Gwitch'in Native Elders: Not Just Knowledge, but a Way of Looking at the World* (1994). The role of elders was described by the participants in terms that sound very similar to the

description of an educator. Elders that were interviewed described their role as the teacher in the community who were "responsible for passing down cultural and traditional knowledge to future generations of their people." This knowledge included skills such as "making snowshoes, toboggans, and sleds." The elders are also the ones who pass down the historical knowledge of their people (Wilson, 1994, p. 36). This is very similar to the role of elders within Yupiaq culture, who were responsible for providing the education, as described by Kawagley (2006).

> The foremost purpose of traditional education was to ensure that the principles or rules for constructing a cognitive map for life were learned well by all people (Spradley 1980). The environment was their school and their cathedral, and reading its natural processes gave meaning to all life (p. 21).

Okakok (1989) expands upon this by describing the loss of the student's cultural identity due to the increase in time spent in school and away from traditional activities.

> Even if children are interested, rarely do they have time to sit quietly, to listen and learn from their elders. The North Slope Borough School District has addressed this by bringing elders into the schools to teach dancing, incorporating native athletics, and teaching students about issues that affect them, such as corporations (p. 407).

Multiple Means of Representation

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Another of the three principles of UDL is providing multiple means of representation, including: options for perception, options for language, mathematical expressions, and symbols, and options for comprehension (Meyer, Rose, & Gordon, 2014). In order to provide multiple means of representation in our instruction for culturally and linguistically diverse learners, the natural learning environment can be utilized to vary our methods of instruction, and promote cross-curricular learning.

Varying Methods of Instruction

A variety of culturally responsive techniques exist to assist children in processing information, such as stories, song, movement, chants, rituals, etc. These techniques come from the learning traditions of oral cultures (Hammond, 2015). The Alaska Cultural Standards for Educators describe a variety of methods for learning that are specific to Alaska Native students. Standard A explains that teachers should provide multiple ways to access learning and cultural knowledge, including through observations and hands-on demonstrations. One example provided is for educators to provide opportunities that encourage the use of cultural and traditional knowledge (Alaska Department of Education & Early Development, 2012).

The types of pedagogy that we use in the educational system today are quite different that the methods that are utilized by Yupiaq elders teaching children. Kawagley (2006) describes an example of the type of pedagogy used by

elders in the story of the mother and daughter cutting fish. The daughter saw her mother cutting fish and told her that she would also like to cut fish. Her mother gave her a smaller uluaq (a knife) and a smaller fish and then continued her work of cutting fish beside her daughter with an occasional demonstration. The child is taught through the apprenticeship model of learning (Brandt, Farmer & Buckmaster, 1993) by their parents and grandparents, but at school different methods are used. The result is that the child is at a disadvantage in their learning. According to the Alaska Cultural Standards for Educators, this should not be the case in Alaska. The standards indicate that the school pedagogy should match the methods used by elders in the community.

Cross-Curricular Learning

The study of knowledge systems tells us that in Indigenous cultures all knowledge is interconnected and not segmented into subject areas as in Western culture. In traditional school settings, science is treated as a separate content area and one that is Eurocentric. In contrast, Indigenous cultures consider science to be interwoven into every part of daily life (Kawagley, et al., 1998). A cross-curricular approach would more readily support the learning of our Indigenous students. The Alaska Cultural Standards for Educators describe how this possibility in Standard B. Two indicators note that teachers could engage students in experiential learning activities in the surrounding environment and combine cultural context and history with scientific methodologies to create holistic

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learning cycles to teach science. An example shared is for students to create a place-based project in cooperation with Culture Bearers that also integrates the food pyramid (Alaska Department of Education & Early Development, 2012).

In contemporary education, academic knowledge attainment is of the utmost importance. Academic knowledge is divided up into subjects such as reading, history, science, and math. Teachers specialize in one or two areas and instruction is divided across subjects. In traditional knowledge systems, all content is interconnected and grounded in experience. The difference between contemporary and traditional can cause Native student to have challenges in learning (Barnhardt & Kawagley, 2005).

Multiple Means of Action & Expression

Finally, the UDL principle of providing multiple means of action and expression means that we are giving students choices for how they demonstrate learning. This includes goal setting, self-monitoring strategies, and managing resources, as well as providing options for student responses based on personal needs and learning styles (Meyer, Rose, & Gordon, 2014).

Hammond (2015) describes this principle through the lens of culturally responsive education as using "place-based learning, project-based learning, or problem-based learning" as an opportunity for students to demonstrate what their understanding (p. 127). Hammond suggests that students can show what they

know through games, solving a mystery or a real-life problem, or working on long term projects.

The Alaska Cultural Standards for Educators describe a variety of ways in which Alaska Native students might choose to show their learning. Standard D includes teachers learning about and building upon the cultural knowledge that students bring with them and seeking to learn the local language and use in their teaching through projects such as family story projects, exploring local myths and storytelling, and the encouragement of student use of heritage language and sharing of cultural knowledge (Alaska Department of Education & Early Development, 2012).

Conclusion

After generations of inadequately serving our culturally and linguistically diverse student population in schools, specifically our Indigenous students, educators need strategies to best support our diverse student populations and to create systemic changes in schools. The educational system should include access for all people in a way that respects the epistemological and pedagogical foundations of both indigenous and western cultural traditions (Barnhardt, 2014). The outcome of this examination of the Alaska Cultural Standards for Educators within a Universal Design for Learning framework is that it is not only feasible to connect the two, but many aspects of the cultural standards are already ingrained in the core principles of UDL. This outcome reiterates the importance of the work

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by Indigenous researchers who have been calling for systemic change in our educational system in order to adequately serve all students. In addition to affecting systemic change, one outcome must be a concrete plan—and call to action—for growth among the people involved in providing education to diverse populations. District administration, teachers, and support staff need intensive and ongoing professional development to implement the Alaska Cultural Standards for Educators within a Universal Design for Learning framework with a focus on cultural pedagogy; this is in contrast to teaching culture and examining views on social justice, race, and students from disparate backgrounds (Hernandez Finch, 2012). Answering this call to action has potential to make a true difference for the education of Indigenous students.

Additional note: *To Show What We Know* is a video that reviews a variety of projects throughout the state of Alaska that focus on teaching science skills through traditional native knowledge and subsistence activities, examples of the confluence of Alaska Cultural Standards for Educators and constructs of UDL in action. It can be viewed here: To Show What We Know.

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