Improving Educational Outcomes of American Indian/Alaska Native Students

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In light of national efforts to increase the number of students who graduate with college and career ready skill sets in the United States, attention has been focused on improving the outcomes of all students. While this focus has brought additional attention to improvements in pedagogy and learning environments, it has also highlighted the achievement gaps that continue to persist across racial and ethnic groups. In particular, the educational outcomes of American Indian/Alaska Native (AI/AN) students continue to draw attention.

Jesse, Northup, and Withington (2015) point out the ongoing disproportionate academic achievement of AI/AN students, compared to their grade-level peers. AI/AN students have historically scored below their peers on the National Assessment of Educational Progress, one common measure of student performance across the U.S. (Jesse et al., 2015; Oakes & Maday, 2009). Additionally, in U.S. high schools, AI/AN students are least likely to graduate (Jesse et al., 2015; Quijada Cerecer, 2013).
Table 1 shows the annual national graduation rate, disaggregated by race, for 2010–2014.

Table 1. **National Regulatory Adjusted High School Graduation Rates**

<table>
<thead>
<tr>
<th>Student Group</th>
<th>Academic Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Students</td>
<td>79%</td>
</tr>
<tr>
<td>AI/AN</td>
<td>65%</td>
</tr>
<tr>
<td>Asian and Pacific Islander</td>
<td>87%</td>
</tr>
<tr>
<td>Black</td>
<td>67%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>71%</td>
</tr>
<tr>
<td>White</td>
<td>84%</td>
</tr>
</tbody>
</table>

Source: eddataexpress.ed.gov

These continuing achievement disparities highlight inadequacies in previous efforts to ameliorate gaps in educational outcomes deficiencies, as well as efforts to improve the college and career readiness of all students. As part of efforts to improve outcomes for all students, broad improvement plans that adequately understand and address the needs of AI/AN students are necessary. To adequately support AI/AN students and encourage their academic growth, efforts must focus on the improving the classroom and school environments in which their learning is situated. These efforts can be supported through the selection of appropriate evidence-based strategies that have demonstrated a positive impact on AI/AN student learning outcomes.

In its non-regulatory guidance on selecting and implementing evidence-based strategies, the U.S. Department of Education (2016) emphasizes the importance of using evidence as a basis for choosing strategies tied to improved student learning. States, districts, schools, and education stakeholders can examine the data and outcomes resulting from evidence-based strategies and evaluate how these strategies have worked in other school settings. These principles apply to efforts to improve the educational outcomes of AI/AN students. By examining evidence-based strategies that have been used in schools with AI/AN students, stakeholders can analyze the outcomes
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these strategies have produced, and select strategies that have the greatest potential for supporting their AI/AN students.

This guidance document highlights evidence-based strategies that address achievement by means of school environment—examining how elements of the environment can be changed to better support AI/AN students. The guidance provided includes an overview of evidence-based strategies for incorporating pedagogy and policies that encourage improvement in AI/AN student outcomes. A comprehensive approach for supporting AI/AN students encompasses the classroom, school, and community environments.
Evidence-Based Strategies

Incorporate Culturally Responsive Instruction

Historically, classroom instruction has been presented in a manner that excludes indigenous knowledge and identity (Kisker et al., 2012), disconnecting students’ cultural competency from academic understanding. However, a growing body of research has demonstrated the positive impact of culturally responsive instruction for the academic engagement and achievement of students, including AI/AN students. One example is the Math in a Cultural Context (MCC) project, a long-term mathematics education project based in Alaska (see Kisker et al., 2012; Lipka, Sharp, Brenner, Yanez, & Sharp, 2005; Rickard, 2005). In their work, MCC researchers and instructors incorporate the knowledge of community Yup’ik elders in creating mathematics modules that supplement a complete K–6 mathematics curriculum. Kisker et al. (2012) examined the impact of MCC modules on students’ mathematics performance by comparing control schools with treatment schools that used the MCC modules. Based on MCC-developed pre- and post-tests administered to second graders, Kisker et al. (2012) found that Alaska Native students in schools that used the MCC modules scored higher than their peers in schools that did not implement the modules. These positive effects were also observed in non-Alaska Native students, suggesting that in this study, the incorporation of a culturally responsive curriculum was beneficial for all students.

Schools and districts interested in implementing culturally responsive instruction for AI/AN students can start by creating and using curriculum that includes and reflects student culture as the basis for instruction. When constructing a culturally responsive curriculum, schools and districts may draw upon students’ communities and tribal elders, as done so in the development of MCC modules. In implementing culturally responsive instruction, the Alaska Native Knowledge Network (ANKN) (n.d.) suggests that the curriculum include following factors:
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- **Cultural Relevance**: include topics of cultural significance, draw on cultural experts, and provide opportunities for students to reach deeper cultural understanding.

- **Standards Based**: identify state standards and the expectations embedded within, and provide properly sequenced opportunities for students to develop deeper understanding of standards.

- **Best Practices**: incorporate culturally appropriate instructional strategies, focus on student understanding and use of knowledge, guide students in active and extended inquiry, and foster cooperative and respectful classroom environment.

- **Assessment**: include ongoing assessment of students’ understanding, skill, and knowledge application; and allow for diverse and varied demonstrations of student understanding.

A culturally responsive curriculum values the knowledge that students’ cultures possess and ties that knowledge to the classroom, validating the knowledge students and their communities possess (ANKN, n.d.). Teachers and students also recognize the multiple ways that knowledge is viewed, structured, and transmitted (ANKN, n.d.), reassuring students that their different ways of thinking and understanding will be valued in the classroom. Culturally responsive curriculum also examines instructional materials to check for any stereotypes or inaccuracies regarding students and their cultures to ensure that students are properly and respectfully represented in the classroom. The Indian Education Division of the Montana Office of Public Instruction has produced a guide (2015) for evaluating classroom materials to certify that materials treat American Indian topics fairly, objectively, and accurately to encourage appreciation and respect for American Indian cultures. Culturally responsive curriculum can be used to recognize and appreciate the cultural knowledge and skills AI/AN students bring into the school setting, as well as ensure that AI/AN students are properly and appropriately represented in the classroom.

Another way to approach culturally responsive instruction is through the application of Universal Design for Learning (UDL) principles. UDL is a framework for creating instruction that addresses various learner needs by suggesting flexible goals, methods, materials, and assessments (National Center on Universal Design for Learning, n.d.). These three primary principles guide UDL (National Center on Universal Design for Learning, n.d.):
• **Provide Multiples Means of Representation**: Ensure that information is presented in multiple ways that address the differences in how students perceive and comprehend information.
  › Provide information through different modalities.
  › Provide information in a format that can be adjusted by students (e.g., text that can be enlarged, sounds that can be amplified).
  › Present information with different options for language, mathematical expressions, and symbols.
  › Include appropriate scaffolds so all students have access to knowledge.

• **Provide Multiple Means of Action and Expression**: Recognize the different ways that students navigate their learning environment and provide options for students to move and express themselves in the classroom.
  › Ensure students have access to tools and assistive technology that heighten student interaction.
  › Provide alternate modes for students to express their knowledge, ideas, and concepts.
  › Scaffold lower-level skills so these skills require less executive processing.
  › Scaffold higher-level executive skills and strategies so they are more effective and developed.

• **Provide Multiple Means of Engagement**: Recognize the different ways that students can be motivated to learn and provide multiple options for students to engage in the classroom.
  › Recognize how students’ interests change as they learn, and use various strategies to draw student interest.
  › Build students’ skills in self-regulation and self-determination to encourage sustained learning.
  › Develop students’ intrinsic abilities to self-regulate emotions and motivations.
UDL principles encourage culturally responsive instruction through recognition of the different skills and capabilities that students bring with them into the classroom. The Wisconsin Department of Public Instruction (n.d.) also points out the emphasis on fluid and equitable relationships between the school and home/community that both culturally responsive instruction and UDL share. By adopting UDL principles, instruction can be culturally supportive and responsive to students (Wisconsin Department of Public Instruction, n.d.), elements that can support the academic learning of AI/AN students.

Inclusion of different languages can be another aspect of culturally responsive classroom instruction. Nelson-Barber and Trumbull (2015) note that with the passage of the No Child Left Behind Act, support for Native languages in the classroom fell sharply. As focus increased on English-only instruction in the classroom, many schools have deemphasized the use and maintenance of Native languages. This may be particularly harmful considering the role of language as a means to connect students with their heritage, and the shrinking ability of schools to connect young learners with their Native languages (Nelson-Barber & Trumbull, 2015). Rather than prohibit Native languages in the classroom, researchers (e.g. Nelson-Barber & Trumbull, 2015; Oakes & Maday, 2009) encourage educators to support student use of Native languages.

One strategy that can be applied across school and district levels is to make Native language instruction an option for students. The Denver (Colorado) Public Schools and Klamath-Trinity Unified districts offer Native language courses to students; these courses garnered significant interest from both AI/AN and non-AI/AN students alike (Oakes & Maday, 2009). By offering courses in different Native languages, schools and districts support students’ development or maintenance of Indigenous language and culture, and validate the importance of students’ linguistic heritage (Lipka, 2002). Incorporating Native languages into the school setting can be a way for educators to engage AI/AN students and enable students to engage with their culture within the classroom.

Educators interested in developing and utilizing culturally responsive curriculum for AI/AN students can find more information in Yazzie’s (1999) work, which provides suggestions and considerations in matching instructional materials to students. Education organizations and state departments of education have also released online resources to support the implementation of culturally responsive curriculum for AI/AN students. The National Education Association (n.d.) has a set of online resources,
including expert-answered questions and lesson examples for use. The Minnesota Department of Education (n.d.) also provides examples of curricula and lessons designed to integrate AI/AN culture on its website. For educators in the primary grades, the First Nations Education Steering Committee (2012) created a resource outlining how to implement culturally responsive curricula, with examples of grade-appropriate lessons and activities. These resources can act as a starting point for educators seeking to create and use curricula responsive to AI/AN students.
**Improve Overall School Climate**

School climate has been identified as a factor in academic engagement, with positive perceptions of school climate associated with increased student involvement in the classroom (Spier, Garibaldi, and Osher, 2012). The role of school climate in improving student achievement outcomes has been emphasized in the Every Student Succeeds Act, with focus on the ways in which schools provide and maintain environments that encourage students to be engaged and motivated in the learning process. This focus on school climate necessitates understanding on how all students can feel welcome in the school setting, but especially for AI/AN students, who have previously reported feeling disengaged and detached from their schools (see Quijada Cerecer, 2013; Spier et al., 2012).

In her research on the educational experiences of AI/AN students, Quijada Cerecer (2013) draws attention to school climate and its effect on student engagement. In examination of AI/AN high school students and their persistence, Quijada Cerecer (2013) found some were discouraged by microaggressions and hostile environments within their schools, adversely impacting their motivation to persist in their high schools. The White House Initiative on American Indian and Alaska Native Education (WHIAIANE) found similar sentiments during listening sessions held across the country (2015). At these listening sessions, AI/AN students recalled school experiences rife with bullying, subtle racism, and low expectations for AI/AN students (WHIAIANE, 2015). As a result, some students experienced distress, particularly in instances where teachers and school staff did not or were not adequately able to provide an inclusive and safe environment for AI/AN students (WHIAIANE, 2015). WHIAIANE (2015) suggests that the bullying experienced by AI/AN students in school may be a major factor in students experiencing academic issues and disengagement, highlighting the importance of instilling a school climate that is responsive to AI/AN students. While a welcoming and engaging school climate is important for all students, it is increasingly important for AI/AN students who have long been marginalized within their school communities.

To improve school climate, one course of action is to identify, then address, the misconceptions and stereotyping of AI/AN students among teachers, administrators, and school staff. At the WHIAIANE listening sessions, AI/AN students discussed interactions with teachers and school staff that were based on false assumptions of AI/AN students. One speaker recalled being discouraged from advanced classes despite her strong academic performance; another shared a story about AI/
AN students having difficulty with obtaining information about college because of the guidance counselors’ belief that “Indians don’t normally make it to college” (WHIAIANE, 2015, p. 26). Without addressing these inaccurate beliefs about AI/AN students, meaningful school climate changes are unlikely to occur. To this end, WHIANE (2015) recommends that states and local school districts encourage cultural competence training for teachers and school staff. In doing so, the goal is to unmask the misconceptions and stereotypes held about AI/AN students and remove them to create a school climate that is inclusive for AI/AN students.

A positive school climate is also characterized by respectful relationships among students and with teachers and other school staff. Alaskan students responding to the Spier et al. (2012) school climate survey identified positive adult-student relationships as a key facet of positive school climate, characterized by open communication between students and teachers/school staff. These students also placed importance on having relationships with teachers who know their students personally, as well as with adults who are invested in student success and advocate on behalf of students (Spier et al., 2012). Regarding fellow students, a positive school climate could be characterized by opportunities to socialize with peers, with encouragement of an inclusive environment where students are not ostracized or bullied (Spier et al., 2012; WHIAIANE, 2015). These characteristics can support a positive school climate for all students, but particularly for AI/AN students.

With regards to school structure, rules and policies should be equitable and non-discriminatory, applying fairly to all students (Spier et al., 2012; WHIAIANE, 2015). WHIAIANE (2015) highlights the disproportionate school discipline AI/AN students have received, with AI/AN students being suspended or expelled from school at a rate higher than their non-native peers. For AI/AN students to feel as though they are in a school environment that will be equitable and respectful, rules and policies must be structured to be culturally responsive, consistently applied, and non-discriminatory (Spier et al., 2012; WHIAIANE, 2015). Rules and policies can create a school climate where AI/AN students do not feel unfairly targeted for disciplinary action, while also ensuring that AI/AN students feel part of a safe environment.

The Center on Standards and Assessment Implementation (2016) recently conducted a review of the tools that states are using to gauge or measure school climate. According to the scan, states are utilizing student, staff, and/or parent surveys to understand how stakeholders perceive school climate. Currently, 26 states administer their own surveys to students, educators, and/or parents. Such surveys are intended to
measure perceptions of school safety and climate, relationships, health and risk behaviors, support, and engagement, and to help schools improve learning environments for all students. Additionally, 15 states administer the Youth Risk Behavior Survey biennially, as part of the Youth Risk Behavior Surveillance System developed by the Centers for Disease Control and Prevention. Overall, 10 states administer both their own surveys and the Youth Risk Behavior Survey. To better understand the climate of school environments for AI/AN students, schools may be interested in administering surveys to students, staff, and/or parents. Other states can provide examples of surveys that can be administered to measure student and family perceptions of school climate.

To support efforts to measure and improve school climate, the following resources provide evidence-based strategies and suggestions. While these resources are not specific to AI/AN students, they do outline evidence-based strategies that can be adapted. The National School Climate Center has published a framework for districts and schools to implement a positive school climate, including suggestions for how to evaluate and revise these efforts. For information on how teachers, school leaders, and families can all contribute to a positive school climate, the Center for Effective Collaboration and Practice has produced a guide that draws on research and examples from public schools across the country. The U.S. Department of Education has also released free tools for states, local school districts, and schools to use. The ED School Climate Surveys can be adjusted and distributed to students, school staff, and parents/guardians to collect data and feedback on school climate measures. Resources for improving school climate are also included. These resources can be found at the U.S. Department of Education site.
Increase Family/Community Involvement

Efforts to improve the educational outcomes of AI/AN students are incomplete without corresponding attention to the broader social contexts in which AI/AN students attend school (Nelson-Barber & Trumbull, 2015). Involvement from parents, families, and community members can have a strong positive impact on academic achievement (Lee & Bowen, 2006; National Caucus of Native American State Legislators, 2008; Powers, 2006) and reduction in students’ behavioral issues (Domina, 2005), emphasizing the importance of implementing reforms that connect schools with students’ family and community networks.

To encourage AI/AN parents’ participation in their students’ schooling, schools must institute efforts to address misgivings some parents may hold towards school systems. Some AI/AN parents are wary of school systems based on their own dissatisfactory experiences in schools (Powers, 2006). Other AI/AN parents may feel marginalized by school actors. Lareau and McNamara (1999) point out that all parents/families possess cultural and social capital that can benefit their students’ learning; however, schools have not always recognized or legitimized this capital. In the case of AI/AN parents, Powers (2006) notes that their reluctance or detachment from school involvement may be the product of their own experiences of having their culture marginalized by their schools. For familial capital to be an effective element of their students’ academic achievement, schools must legitimize this capital (Lareau & McNamara, 1999). As part of supporting AI/AN students and their academic achievement, efforts to genuinely engage students’ family and community can be a way to draw upon their knowledge, culture, and experiences in developing school plans and curricula that support AI/AN students and their learning.

In their 2008 report, the National Caucus of Native American State Legislators recommend the use of strategies and pilot programs designed to increase parental, familial, and community involvement at schools that serve AI/AN students. This can be done by including local tribes in educational decision-making to ensure that the cultural, linguistic, and educational needs of AI/AN students are adequately identified and met. Parents have not always been treated as full partners in their students’ educational decisions (Lewis, 2006), so efforts to encourage involvement must be done so from a perspective of legitimate partnership. Schools can also encourage closer relationships between families and school staff to support learning at home and in community, while also keeping families actively engaged with the school system. Inviting tribal community members into the classroom can also be a means
to include the community in schools, while also engaging AI/AN students in their cultures. The National Caucus of Native American State Legislators (2008) emphasizes the importance of engaging AI/AN families and communities and making them a critical part of schools.

The following resources provide descriptions of evidence-based practices for increasing parent and family involvement in schools, implemented in a variety of environments and contexts. Weiss, Bouffard, Bridglall, and Gordon (2009) present examples of initiatives that have shown promise in encouraging family participation in schooling, including suggestions for how schools and districts can invest in similar initiatives. The Ohio Department of Education maintains a resource of research-based best practices for increasing parent and family involvement in schooling. For suggestions on increasing community involvement, Davis (2000) discusses potential challenges with community collaborations and suggestions for how to meet these challenges. Also included in Davis’s (2000) work are tools for measuring school, family, and community partnerships. For further suggestions on developing relationships with both family and community, Garcia, Frunzi, Dean, Flores and Miller (2016) have created a toolkit of resources and suggested activities to help school staff engage in cross-cultural communication between family, community, and school.
Conclusion

Despite prior efforts to support AI/AN students and improve their educational outcomes, there are still many AI/AN students who have not been properly supported in their schools. While there is no singular definitive way to support all AI/AN students in the classroom, research has identified some strategies and considerations for states, districts, and schools to potentially utilize. Through selection and implementation of appropriate evidence-based strategies, the school setting can be adapted to be inclusive of AI/AN students and their culture and knowledge. To engage AI/AN students in school, adaptations can be made to ensure that AI/AN student feel validated and included, encouraging students to engage in schooling. Stronger ties could also be made between schools and family/community members to encourage greater collaboration, where families and communities can contribute to a school setting that is responsive to AI/AN students’ culture. The strategies discussed in this guide have demonstrated improvement of academic outcomes for all students, supporting overall school improvement while also providing needed supports for AI/AN students. By drawing AI/AN students and their communities closer to schools, the goal is to increase academic engagement and investment in learning outcomes, and to demonstrate that AI/AN students are recognized and valued members of schools.

For more information on the work of the Center on Standards and Assessment Implementation, please visit our site here. Please also feel free to contact us at csai@wested.org.
References


