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# New Research on the Impact of Cultural Influences in Education on Native Hawaiian Student Outcomes

Shawn Malia Kana'iaupuni, Brandon Ledward,  
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## Summary

The long-standing education achievement gaps of Native Hawaiian and Pacific Islander (NHPI) students in our nation represent a significant concern, one that diverse stakeholders are committed to resolving. Although national data sets fail to address NHPI populations, thereby limiting the ability to drive effective policy and programs, local-level research and developments in education provide fresh opportunities to reexamine the learning and teaching of NHPI students. This report shares the results of a quantitative research study that examines the impact of culture-based education (CBE) on student achievement and socio-emotional development. The findings indicate that culture-based educational strategies positively impact student outcomes, especially Native Hawaiian student outcomes. The implications of this study are valuable for education practitioners, programs, and policy makers seeking to eliminate achievement gaps for NHPI and indigenous students.

## Introduction

The long-standing education gaps of NHPI students in the United States represent a significant concern, one that diverse stakeholders are committed to resolving. New local-level research and innovations in education provide fresh opportunities to reexamine the learning and teaching of culturally diverse students in ways other than the conventional models that many schools have used, most of the latter having failed to significantly improve NHPI student outcomes. This article shares results and policy implications from the Hawaiian Cultural Influences in Education

(HCIE) study, which provides new quantitative data linking student outcomes to culturally relevant educational approaches.

### Background

High-level data from past decennial censuses and from states that collect and report disaggregated data on NHPIs consistently document the longstanding gaps in NHPI educational outcomes, ranging from lower achievement, attendance, and graduation rates to higher disciplinary and risk-taking behavior among our youth (e.g., Kana'iaupuni, Malone, and Ishibashi, 2005). Various theories have emerged to explain such gaps in student performance. The cultural deficit theory attributes the academic shortcomings of minority students to the students' home culture and environment whereas cultural difference theories shift their focus from the home to differences in language and communication styles between home and school (Erickson, 1993). The cultural compatibility (Vogt, Jordan, and Tharp, 1993) and cultural congruence (Mohatt and Erickson, 1981) theories similarly explain poorer student outcomes among some groups as a result of language differences and cultural mismatches. The oppositional theory focuses on student responses to these mismatches and includes broader societal inequities and experiences with discrimination (Ogbu, 1993).

Recent theories place culture at the center of debates surrounding relevance, relationships, and rigor in learning processes. Culturally responsive/relevant education recognizes cultural gaps between home and school as part of the achievement gap and calls for increased cultural relevance in education to engage, support, and empower learners (Castagno and Brayboy, 2008). Cognitive theory (Demmert and Towner, 2003) reasons that students learn more readily when prior knowledge is activated and connected to new information they are learning, hence supporting the importance of cultural relevance. Finally, the cultural-historical-activity theory more specifically emphasizes connectedness to community and culture as the foundation for teaching and learning (Roth and Lee, 2007).

Despite differences in approach and emphasis, these theories all consider the degree of continuity and congruence between home and school. This body of work suggests that education is an individual and a collective experience, where engagement and success can be enhanced and enriched through strengths-based approaches integrating the culture and community. In this research,

the term *CBE* is used to represent a holistic and comprehensive application of culturally relevant education and refers to educational approaches that are grounded in a particular cultural worldview (Demmert and Towner, 2003).

A strong premise of this body of work is that education is a cultural process. Schools are the primary vehicle for transmitting knowledge and skills as well as the values, practices, and culture of a society. What may be less obvious is that all educational systems and institutions are rooted in a particular cultural worldview. Critical questions to consider are whose culture is being transmitted and what cultural values are being instilled in children? In the United States, schools reflect mainstream worldviews in which Western culture is the norm. Some scholars argue that there is bias against non-Western worldviews and that children of non-Western ethnic or indigenous groups are thereby disadvantaged (Cornelius, 1999; Jacob and Jordan, 1993; King, 2005; Loewen, 2007; Sue, 2004). Although these biases may be invisible or unrecognized, students of indigenous and other minority communities often feel disconnected in an educational system in which their values, knowledge, and practices are largely ignored and result in educational disparities. The gaps are particularly serious for cultural groups that have not voluntarily migrated to this country with the intent of assimilating.

As Kana'iaupuni and Kawai'ae'a (2008) point out, at its simplest, culture may be defined as shared ways of being, knowing, and doing. The educational literature describes the role of culture in education in various ways, from cultural styles or sensitivity approaches that stress teaching respect and tolerance for other cultures and ways of learning, to learning strategies that teachers can use to be culturally attuned and responsive to their student needs (Castagno and Brayboy, 2008). Our use of the term *CBE* is consistent with more in-depth treatments referring to the grounding of instruction and student learning in the values, norms, knowledge, beliefs, practices, experiences, places, and language that are the foundation of a culture, in this case Hawaiian indigenous culture. It is community-based. It is place-based. *CBE* may include teaching the traditions and practices of a particular culture, but it is not restricted to these skills and knowledge. Most important, *CBE* refers to teaching and learning that are grounded in a cultural worldview, from whose lens are taught the skills, knowledge, content, and values that support student success in our modern, global society.

The recent HCIE study provides fresh insight into the question of how CBE approaches impact student outcomes. The study is based on interviews with 600 teachers, 2,969 students, and 2,264 parents at sixty-two participating schools, including conventional public schools, Hawaiian-focused and Western charter schools, schools with Hawaiian-language immersion programs, and select private school campuses. It is a collaborative effort of the Kamehameha Schools, Hawai'i Department of Education (DOE), and Na Lei Na'auao (an alliance of Hawaiian-focused public charter schools). As such, it is the first large-scale empirical study of its kind. Data were collected from teachers about culturally relevant and effective teaching practices and merged with student surveys and institutional data regarding math and reading achievement in addition to other outcomes. Hierarchical linear modeling techniques were used to conduct multilevel statistical analyses of data collected from public and private schools.

Table 1: Student Characteristics by School Type

	DOE	Private	Public Charter	All Schools
Gender (n = 2,695)				
% Female	56.1	50.8	44.3	52.6
Ethnicity (n = 2,802)				
% Hawaiian	54.1	99.9	83.0	79.7
Social Economic Status (n = 1,425)				
% Free/reduced lunch population	44.6	NA	70.5	NA
Hawai'i Residence (n = 2,969)				
% Five years or less	8.3	2.7	2.7	5.05
N	1,242	1,544	183	2,969

The findings are consistent with prior qualitative studies, indicating that CBE strategies positively impact student outcomes, and especially Native Hawaiian student outcomes. Specifically, the analyses indicate a set of nested relationships linking the use of CBE strategies by teachers and schools to student educational outcomes: first, CBE use positively impacts students' socioemotional well-being (e.g., identity, self-efficacy, and social relationships); second, enhanced socioemotional well-being, in turn, positively affects math and reading test scores; and third, the analyses suggest a smaller, statistically significant relationship between CBE

use and math and reading test scores, most notably when teachers' use of culture-based strategies is supported by overall use of culture-based strategies in the school.

The study also found that students of teachers who often use CBE approaches reported higher Hawaiian cultural affiliation (among Hawaiian students and students of other ethnicities), civic engagement, and school motivation than did students of other teachers. For example, the survey data show that the former group is more likely to have strong community ties, working to protect the local environment and attending public meetings about community affairs. They are also more likely to spend time on their homework every night and reported high levels of trusting relationships with teachers and staff, and a deep sense of belonging at school. Specifically, students of teachers who often use culture-based approaches are significantly more likely to feel that many people at school are like family, they can trust people at their school, and teachers at their school go out of their way to help them.

In addition, 87.9 percent of students of teachers who often used culture-based strategies said they expect to graduate from college compared with 73.5 percent of students whose teachers tended not to use such strategies (*Education Week*, 2010).

### Policy Implications for CBE and Its Relationship to Student Outcomes

The findings of this study have several state and local policy implications relevant to CBE and its positive relationship to student achievement:

1. Provide professional development through teacher education and in-service programs to educators and leaders that gives foundational understandings of CBE approaches and strategies. Best practices in achieving relevance and rigor in the classroom are well articulated through CBE, providing positive results for closing gaps in educational outcomes for NHPs. Findings indicate that culture-based environments not only promote academic rigor and relevance for students but also instill self-esteem and emphasize the values of civic engagement through the fostering of community attachment and giveback. Programs at the university and school levels that are designed to instill best-practice teaching methods for new and existing teachers should incorporate culturally relevant approaches and strategies to broaden styles and practices in teaching and learning.

2. Increase federal and state funding for culture- and language-based charter and other schools and supporting organizations. Culture- and language-based schools are highly effective at integrating CBE to the benefit of their students in more ways than one, for instance, attendance, timely completion, and postsecondary aspirations. For example, in the state of Hawai'i, seventeen of the state's thirty-one charter schools are culture-based. Though powerful in application, findings show that CBE is not the normative approach to teaching and learning in Hawai'i. We recommend increased financial and political support for CBE-rich environments, such as Hawaiian-focused charter schools, and to secure their sustainability. Currently, many operate out of substandard tents and buildings, have no facilities support from the state, and have been working to create policy changes around equitable funding, relative to other public school students.

These recommendations are supported by a recent hearing of the Senate Committee on Indian Affairs, during which expert panelists called for continued federal support for culture-based learning in general and the promising vehicle of charter schools in particular. That support should include encouraging states to strengthen their own culture- and language-based schools, including public charter schools, through matching grant funding and grant award criteria, for example through the "Race-to-the-Top"<sup>2</sup> and other mechanisms. Support is also needed to establish legislative goals and criteria for states to require equitable funding for culture- and language-based schools, curriculum, and materials, especially those that offer educational environments that support the unique cultures and languages of our indigenous peoples.

In the Native Hawaiian community, there is an old proverb, "ma ka hana ka 'ike"—in doing, one learns. As supported by the findings on NHPI achievement in our public education system, there is an undeniable correlation between cultural relevance in education—through the forms of hands-on, place-based learning that honors students' cultural backgrounds as valuable repositories of knowledge—and how well they perform in the school setting. Stakeholders committed to closing the achievement gap need only point to successful examples of culture-based pedagogy and continue to promote these efforts through advocacy, funding, and policy. The evidence demonstrates that community-based, culturally relevant education benefits not only NHPIs but also all children. Overall, the study results re-

ported here are consistent with other research, showing mounting evidence that promoting federal, state, and private collaborations for innovation and culture-based learning will produce—and has already produced—outstanding student achievement.

## Notes

1. For more information, refer to the Senate Committee on Indian Affairs Web site, complete with full testimonies and video of the hearings. Details can be found at <http://indian.senate.gov/news/pressreleases/2011-05-26.cfm>.
2. Race to the Top (RTTT) is a \$4.35 billion United States Department of Education program designed to spur reforms in state and local district K-12 education. It is funded by the ED Recovery Act as part of the American Recovery and Reinvestment Act of 2009 and was announced by President Barack Obama and Secretary of Education Arne Duncan on July 24, 2009 (see [http://en.wikipedia.org/wiki/Race\\_to\\_the\\_Top](http://en.wikipedia.org/wiki/Race_to_the_Top) (accessed August 22, 2011)).

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