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American Indian/Alaskan Native College Dropout: Recommendations for Increasing Retention and Graduation

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Erratum

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Abstract

Throughout the United States, the college dropout rate among American Indian/Alaskan Native (AI/AN) students in public universities is the highest compared to any other student group. Researchers have identified this problem and offered reasons for it, but few have made specific efforts to disrupt the continued dropout rates. This article identifies and discusses three recommendations to address the dropout problem from a systems, rather than individual, perspective: (1) living and learning communities, (2) social belonging intervention, and (3) self-regulated learning activities. Studied with minority students, these endeavors show promise for retaining underrepresented students, specifically AI/AN students. To disrupt the long-term problem of dropouts among the AI/AN population, adjustments within public university systems must be part of the effort.

Keywords: American Indian, Alaskan Native, retention, living and learning, social belonging, self-regulated learning

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Introduction

According to the U.S. Census Bureau (2012), approximately 3 million people reported their sole race as American Indian/Alaska Native (AI/AN), and 2.3 million people reported their race as combined AI/AN and one or more other races. People with "origins in any of the original peoples of North America, South America, and Central America, maintaining tribal affiliation or some level of community attachment" compose the AI/AN racial group (U.S. Census Bureau, 2012, p. 1). These numbers indicate a shift from the Census in 2000, in which 2.5 million people reported their sole race as AI/AN and 4.1 million people reported their race as combined AI/AN and one or more other races (U.S. Census Bureau, 2012). With a combined total of approximately 6 million people, AI/ANs make up about 2% of the U.S. population (U.S. Census Bureau, 2012). There are 566 federally recognized tribes in the United States and more than 100 state-recognized tribes. There are also active tribes that exist without any state or federal recognition.

Many perceive AI/ANs as residents of remote reservations, separated from the rest of America, but the majority live in urban areas; only about one-third of AI/ANs live on reservations and tribal trust lands (U.S. Census Bureau, 2011). Among the approximate 19 million college students in the United States, AI/ANs are the minority within the minority representing just over 250,000 students (National Center for Education Statistics, 2004).

High rates of college dropout among AI/AN students throughout public universities in the United States are well documented (Braxton, Brier, & Steele, 2008; Patterson et al., 2013). Retention rates in public higher educational institutions differ for all student populations, but, in terms of demographics, the gap is greatest among African American, Hispanic, and AI/AN students (National Center for Education Statistics, 2004). According to Brown and Robinson Kurpius (1997), 75%–93% of AI/AN students drop out of college before completing their degree. These rates do not include dropout rates in tribal colleges, of which there are approximately 36 across 14 states in the United States. Tribal colleges have their own set of retention issues, according to recent remarks by President Obama:

> Students who study at a Tribal College are eight times less likely to drop out of higher education; they continue on to a four-year institution at a higher rate than students in community colleges; and nearly 80 percent end up in careers that help their tribal nation. (White House, 2009, para. 21)

The United States has a long, troublesome history educating AI/ANs within public universities. In the 19th Century the stereotypical ideas and beliefs about educating AI/ANs centered on converting so-called savages into English-speaking Americans (Ridgeway & Pewewardy, 2004). Between 1880 and 1930, AI/AN the U.S. government removed children from their families and relocated to residential boarding schools hundreds of miles away. In 1920, boarding school attendance for AI/AN children was required by law, and each year, police would round up children to be sent to residential schools (Reyhner & Eder, 2004). By 1930, more than half of all AI/AN children who attended school did so in these institutions, resulting in trauma that lingers into current educational experiences (Evans-Campbell, Walters, Pearson, & Campbell, 2012). These historical experiences are a thread woven into every part of the educational process for AI/AN communities.

The fact is, AI/AN students who get a high school diploma and begin attending a public college have the highest dropout rate compared to any other student population, despite being academically capable. A number of reasons contribute to this population's having the highest educational dropout rate in the United States. Because public universities serve the majority population so well, with White students' relatively high graduation rate of about 62% (Snyder, Dillow, & Hoffman, 2008), it would be easy to focus on the characteristic flaws of the minority individual; however, more meaningful discourse can occur regarding how to address systematic and institutional dysfunction within public universities.

This issue of poor AI/AN completion is particularly important in the area of STEM education. The United States is going to need an additional 1 million STEM professionals than are currently produced to stay competitive in the global marketplace ((President's Council of Advisors on Science and Technology [PCAST], 2012). Currently, only 3.3% of AI/AN students earn a four-degree in STEM fields (Committee on Underrepresented Groups and the Expansion of the Science and Engineering Workforce Pipeline, 2010).

This article examines three promising strategies that might significantly disrupt college dropout among the AI/AN community: (1) living and learning communities, (2) social belonging intervention, and (3) incorporating AI/AN student learning styles. Each of these efforts has been scientifically tested to be effective with the general student population as well as within some minority student populations. They also are fairly easy for university programs and colleges to incorporate within their existing systems. Equipped with these strategies, college programs and schools could significantly reduce AI/AN student college dropout.

Living and Learning Communities

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There are several different varieties of living and learning communities in the current college systems in the United States, but a common theory runs behind them all: students will persist and excel in college if they are given the opportunity to integrate their social and academic lives (Pascarella & Terenzini, 2005; Pasque & Murphy, 2005). When students join together around commonly shared academic or social interests, their college experience is much more likely to be positive (Gamson, 2000; Inkelas et al., 2006). Different living and learning community models group students according to similar course work, common characteristics or interests, participation in similar activities, intensive faculty collaborations, or all of these (Stassen, 2003).

The main goal of a living and learning community is to provide groups of students with specialized academic and social services. It is important to balance these services between meeting academic standards and ensuring a rich social life while in college. Studies have investigated and described different living and learning models—from the basic design of shared interest living to its most structured settings (i.e., shared interest living with mandatory courses and other required activities) (Stassen, 2003). Years of research have determined that, regardless of the model's design or intensity, living and learning communities significantly influence a student's college experience, grade point average (GPA), and retention. In other words, students who became involved with living and learning community programs, even programs measured to have the least amount of structure and intensity, have increased GPAs (Inkelas et al., 2006; Pascarella & Terenzini, 2005), higher retention rates (Pasque & Murphy, 2005), and more positive experiences in the program (Pike, Schroeder, & Berry, 1997).

How living and learning communities benefit AI/AN students

Several studies have addressed the issue of family, community, and cultural connectedness and its effect on academic achievement for AI/AN students (Brown & Robinson Kurpius, 1997; Gloria & Robinson Kurpius, 2001; Guillory & Wolverton, 2008). Living and learning communities are interconnected, supportive environments. Along with giving students the opportunity to experience college life together, these communities can organize or sponsor cultural events that invite students' families into their academic activities. According to Huffman (2008), AI/AN students should find ways to hold on to their own cultural identities in academic life. Maintaining cultural identity increases students' self-awareness and the chances that they will complete college. Having support within the living and learning program can fulfill the need to remain connected culturally and possibly provide more effective supports in the form of environments free of issues present in many reservations (e.g., extreme poverty, addiction, high rates of joblessness).

Also important is the fact that living and learning communities create little to no extra expense for universities. Dormitory space already exists that can house AI/AN-specific communities. Furthermore, AI/AN students do not rely on university resources to develop and maintain connection to their community and culture. Rather, the living and learning community of students can create events as part of their educational–personal responsibility.

Social Belonging Intervention

Social belonging is defined as a perception of having positive relationships with other people within one's community (Cacioppo & Patrick, 2008). A sense of social belonging is essential during young adulthood and during times of transition into new and unfamiliar communities, such as a college campus. Many investigations have suggested that social separation, seclusion, and low social status damage well-being (Lyubomirsky, Sheldon, & Schkade, 2005), intellectual attainment (Walton & Cohen, 2007), and overall mental and physical health (Cohen & Janicki-Deverts, 2009; Miller, Rohleder, & Cole, 2009; Uchino, 2006). Some of these studies (Williams & Carter-Sowell, 2009) have indicated that a single instance of exclusion can destabilize overall well-being, lower intelligence test performance, and decrease self-control. Socially stigmatized groups, such as AI/AN students and African Americans, might be more uncertain about their social belonging in mainstream institutions like college campuses than nonminority groups (Walton & Cohen, 2007). Given their frequent marginalization, these groups may be skeptical of whether they will fully integrate into positive social relationships in certain settings (Steele, Spencer, & Aronson, 2002).

According to Walton and Cohen's (2011) study, a student's sense of belonging to the college community correlates with their persistence to graduation. In a randomized controlled trial, 49 African American and 43 nonminority first-year students in the treatment group received a social belonging message framed in a way that suggested that all students experience short-lived college adversity (Wilson, Damiani, & Shelton, 2002). The researchers were surprised by the magnitude of improvement from such simple, brief messages over the three-year period of the study. The goal of the study was to test a new intervention for minority students, who have the highest dropout rates in American colleges. The social belonging intervention improved GPA, health status, and retention and also reduced the number of doctor's visits during students' time in college. Although this intervention has not been tested with AI/AN students, it has the potential to significantly improve the academic success of students in this vulnerable demographic group.

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How a social belonging intervention would benefit AI/AN students

Given the success among other minority groups, universities could start social belonging activities directed to AI/ANs immediately. Because AI/AN students are the minority within the minority on most college campuses, they could be easily identified and supported. For instance, during usual orientation activities, this group could have its own event, purposely inviting family and friends. Recruiting current AI/AN students, along with all other students, to welcome the new AI/AN students to campus would greatly aid in making AI/AN students feel part of their new home at the university. These interactions would also provide opportunities for current students to share stories of feeling out of place initially but, over time, beginning to feel as if they belonged.

Feelings of belonging are often lowest during the first semester. A system that allows older students to check in with the new AI/AN freshmen would reinforce the notion that the university is interested and invested in their success. Establishing and maintaining at least one connection on campus could be greatly beneficial for AI/AN students, who mostly arrive with none. Furthermore, the resources required to begin making minority students feel welcomed and as though they belong on campus are very few. A few simple acts of kindness from a host could significantly increase feelings of belongingness.

One of the high impact practices shown to promote general college student retention and success is faculty contact (Kuh, 2008). Expanding the scope of a social belonging approach by including a faculty mentoring program would be an additional means of helping AI/AN students to feel that they belong.

Incorporating AI/AN Preferred Learning Approaches: Self-Regulated Learning and Environmental Fit

In the late 1980s, a program in the State Universities of New York (SUNY) implemented a critical thinking course for undergraduate students. The course focused primarily on cognitive psychology and philosophy issues connected with the theory of self-regulated learning (SRL). A review of the data revealed a significant difference in retention and graduation rates, on average, between the students who took the SRL course and those who did not (Ahuna, Tinnesz, & VanZile-Tamsen, 2011). With this encouraging data, differences between AI/AN students were evaluated by Patterson, Ahuna, Tinnesz,and VanZile-Tamsen (2014).

Compared to the university's general population, AI/AN students who participated in the SRL course had higher retention rates as they progressed, higher graduation rates, and higher overall GPAs. The results were the same

between AI/AN students who participated and those who did no (Patterson, Ahuna, Tinnesz,& VanZile-Tamsen, 2014).

Given the success of AI/AN students who participated in SRL courses, it is clear that certain components of the course connect with this population's approach to thinking and learning. There has been debate regarding whether AI/AN students have their own cultural learning styles (Kleinfeld & Nelson, 1991), but other research has explored how thinking and learning are grounded in one's culture (Greymorning, 2000). For instance, AI/ANs might impart knowledge through the telling of stories. If a group of students learns better when teaching is wrapped around a story, that knowledge about learning schemes can be applied in all courses. Because the goal of the SRL is to understand a student's own preferred approach to learning while also identifying individual ways to become a more active learner, coordination between teaching and learning strategies could benefit AI/AN students (Stairs, 1999; Swisher & Pavel, 1994). One of the main reasons for dropout among AI/AN students, as well as other students, is unsuitable matching of learning styles (Shortman, 1990), specifically the mismatch of a student's preferred learning environment and the actual learning environment within a particular classroom (Fraser, 1998a & b). Self-regulated learning courses may reduce the conflicting expectations between AI/AN students and instructors and, thus, reduce dropout.

In college and university programs, SRL courses have gained much attention since the mid 2000's. Masui and De Corte (2005) have established that SRL increases academic achievement, and Vermunt (2000) studied how SRL boosts the idea of lifelong learning. However, academic studies on cultural difference and SRL are lacking (Bembenutty, 2007; Pintrich & Zusho, 2007; Schunk, Pintrich, & Meece, 2008). According to Pintrich and Zusho (2007) and Schunk et al. (2008), the absence of these types of studies indicates that college professors might provide insufficient academic guidance to underrepresented students and/or may be fostering a learning environment that is not aligned with the preferred learning environments of these students (Fraser, 2007).

The definition of SRL has evolved over time (Aksan, 2009; Zimmerman, 2001; Zimmerman & Schunk, 2001), but the common element that unites each definition is that students perceive themselves as learners; it is critical that they use various processes to regulate their own learning to achieve academic success (Zimmerman, 2001). Three major constructs of SRL theory are connected across theoretical opinions: (1) the student's preferred approach to learning, (2) the student's ability to influence and predict his or her daily academic life, and (3) peer assessment and feedback (Cassidy, 2011; Perry, 2003; Peterson, Rayner, Armstrong, & Deane, 2008; Zimmerman, 2001). Self-regulated learning does not

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postulate that AI/AN students as a group have their own culturally determined learning styles. Rather, it states that each individual has his or her own preferred way of learning. Once individuals understand how they prefer to learn and what approach leads to the greatest success, they can take that knowledge into any learning situation.

How SRL Benefits AI/AN Students

Considering the retention, graduation, and GPA benefits AI/AN students gained by attending the SRL course, this type of course may benefit other minorities with similar college retention and graduation rates. Despite the great success of the SRL course since its inception in the 1980s, the SUNY program terminated the course offering because of the downturn in the U.S. economy and university resources. Unfortunately, these types of resources for high-risk students are easily eliminated when universities are faced with funding crises.

However, the cost–benefit ratio of understanding and teaching students how the students learn could be compelling. A freshman's early courses could consist of a few sessions on the idea behind SRL and some activities that support strategies on how students learn. Each individual has both strengths and weaknesses when learning new information. Students who are taught and learn their "own learning style" can apply this strategy in all courses. Universities could easily incorporate SRL activities into freshmen courses with very little system retooling. Asking teachers to understand the concept of SRL and to find ways to work it into their class sessions might improve academic outcomes for AI/AN students in particular, as well as for other students without this knowledge. Further, faculty development programs should include a module on the creation of learning environments that are consistent with a broad array of learning preferences, particulary in STEM disciplines where the primary mode of instruction continues to be lecture (Fairweather, 2005).

Conclusion

Uncertainty still surrounds the low retention rates of AI/AN students in U.S. universities. Although it is important to continue studying the reasons why so many AI/AN students do not remain in college, it is also time to disrupt this lingering tragedy with scientifically supported interventions. Living and learning communities, social belonging interventions, and a greater incorporation of active learning and SRL opportunities can begin to deflect the factors that lead AI/ANs to drop out of college and university programs with such a high frequency. Although college and university programs have developed strategies to attract and enroll minority students, specifically AI/ANs, few strategies have kept them enrolled until graduation. By making an effort to develop strategies for retaining

AI/AN students, such as those outlined in this article, college and university programs could significantly increase retention at minimal expense and finally begin to disrupt this decades-old problem. It is an opportunity for current leaders in the higher educational system to address the well known issue of low minority participation in universities and colleges.

These recommendations are not without limitations. First, a one-size-fits-all approach to dealing with AI/AN dropout may be inadequate on its own. These recommendations would have to be adaptable and sensitive to local conditions. For instance, differences in living and learning programs for students coming from urban versus reservation settings have to be taken into account. Living and learning programs cannot totally address the differences in needs between urban and rural students. Leaving a rural community and entering a university campus results in a more unsettling kind of "cultural shock" compared to entering a campus from an urban setting.

Age also plays an important role in campus life and in decisions to drop out. All students benefit when they understand how they learn new material. Socially regulated learning efforts are worthy for all ages. However, social belonging and living and learning efforts must consider age issues because feelings of belongingness among traditional college-aged and older AI/AN students will differ. Both age groups seek a sense of belonging within their own unique groups. Older adults have trouble feeling like they belonged in a group of teenagers, and vice versa.

Having accepted AI/AN students into their systems, universities have directly indicated that these enrolled students have been evaluated as learners and are capable of succeeding in that university. Once a student is admitted to a university, it is too late to cite the student's liabilities (e.g., poor preparation) as an excuse for that individual's lack of success. To allow the injustices that result from AI/AN college dropout to continue within our own institutions of learning is unacceptable. That universities continue to focus on the faults of students when they drop out, rather than on the system that has perpetuated this problem, is wrong and indefensible. Therefore, it is the responsibility of U.S. public universities to implement activities to engage and retain minority groups.

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References

Ahuna, K. H., Tinnesz, C. G., & VanZile-Tamsen, C. (2011). Methods of inquiry: Using critical thinking to retain students. *Innovative Higher Education*, *36*, 249–259.

Aksan, N. (2009). A descriptive study: Epistemological beliefs and self-regulated learning. *Procedia–Social and Behavioral Sciences*, *1*, 896–901.

Bembenutty, H. (2007). Self-regulation of learning and academic delay of gratification: Gender and ethnic differences among college students. *Journal of Advanced Academics*, *18*, 586–616.

Braxton, J. M., Brier, E. M., & Steele, S. L. (2008). Shaping retention from research to practice. *Journal of College Student Retention*, *9*, 377–399.

Brown, L. L., & Robinson Kurpius, S. E. (1997). Psychosocial factors influencing academic persistence of American Indian college students. *Journal of College Student Development*, *38*, 3–12.

Cacioppo, J. T., & Patrick, B. (2008). *Loneliness: Human nature and the need for social connection*. New York, NY: W. W. Norton.

Cassidy, S. (2011). Self-regulated learning in higher education: Identifying key component processes. *Studies in Higher Education*, *36*, 989–1000.

Cohen, S., & Janicki-Deverts, D. (2009). Can we improve our physical health by altering our social networks? *Perspectives on Psychological Science, 4*, 375–378.

Committee on Underrepresented Groups and the Expansion of the Science and Engineering Workforce Pipeline (2010). *Expanding Underrepresented Minority Participation: America's Science and Technology Talent at the Crossroads.* Committee on Science, Engineering, and Public Policy; Policy and Global Affairs; National Academy of Sciences, National Academy of Engineering, and Institute of Medicine. Available from http://www.nap.edu/catalog/12984.html.Evans-Campbell, T., Walters, K. L., Pearson, C. R., & Campbell, C. D. (2012). Indian boarding school experience, substance use, and mental health among urban two-spirit American Indian/Alaska natives. *American Journal of Drug and Alcohol Abuse*, *38*, 421–427.

Fairweather, J. (2005). Beyond the rhetoric: Trends in the relative value of teaching and research in faculty salaries. Journal of Higher Education, 76, 401-422.

Fraser, B. J. (1998a). The birth of a new journal: Editor's introduction. *Learning Environment Research: An International Journal, 1*, 1-5.

Fraser, B. J. (1998b). Science learning environments: Assessment, effects and determiants. In B.

J. Fraser & K. G. Tobin (Eds.), *International handbook of science education* (pp. 527-564). Dordrecht, The Netherlands: Kluwer Academic Publishing.

Gamson, Z. F. (2000). The origins of contemporary learning communities: Residential colleges, experimental colleges, and living-learning communities. In D. DeZure (Ed.), *Learning from change*: *Landmarks in teaching and learning from Change magazine 1969–1999*. Sterling, VA: Stylus.

Gloria, A., & Robinson-Kurpius, S. (2001). Influences of self-benefits, social support and comfort in the university environment on the academic nonpersistence decisions of American Indian undergraduates. *Cultural Diversity and Ethnic Minority Psychology*, *7*, 88–102.

Greymorning, S. (2000). Culture and language: The political realities to keep trickster at bay. *Canadian Journal of Native Studies*, *20*, 181–196.

Guillory, R. M., & Wolverton, M. (2008). It's about family: Native American student persistence in higher education. *Journal of Higher Education*, *79*(1), 58–87.

Huffman, T. E. (2008). *American Indian higher educational experiences*: *Cultural visions and personal journeys*. New York, NY: Peter Lang.

Inkelas, K. K., Johnson, D., Lee, Z., Daveer, Z., Longerbean, S. D., Vogt, K., & Leonard, J. B. (2006). The role of living-learning programs in students' perceptions of intellectual growth at three large universities. *NASPA Journal, 43*(1), 115–143.

Kleinfeld, J., & Nelson, P. (1991). Adapting instruction to Native Americans' learning styles: An iconoclastic view. *Journal of Cross-Cultural Psychology*, *22*, 273–282.

Kuh, G. (2008). High-impact educational practices: What they are, who has access to them, and why they matter. Washington, DC: American Association of Universities & Colleges (AAC&U).

Lyubomirsky, S., Sheldon, K. M., & Schkade, D. (2005). Pursuing happiness: The architecture of sustainable change. *Review of General Psychology*, *9*, 111–131.

Masui, C., & De Corte, E. (2005). Learning to reflect and to attribute constructively as basic components of selfregulated learning. *British Journal of Educational Psychology, 75*, 351–372.

Miller, G. E., Rohleder, N., & Cole, S. W. (2009). Chronic interpersonal stress predicts activation of pro- and anti-inflammatory signaling pathways 6 months later. *Psychosomatic Medicine*, *71*(1), 57–62.

National Center for Education Statistics. (2004). *Postsecondary institutions in the United States: Fall 2002 and degree and other awards conferred: 2001–02* (NCES Report No. 2004-154). Washington, DC: U.S. Department of Education.

http://openscholarship.wustl.edu/nativehealth/vol1/iss1/1
DOI: 10.7936/K7T43RGK

Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students*: *A third decade of research* (Vol. 3). San Francisco, CA: Jossey-Bass.

Pasque, P. A., & Murphy, R. (2005). The intersections of living-learning programs and social identity as factors of academic achievement and intellectual engagement. *Journal of College Student Development*, *46*, 429–441.

Patterson, D. A., Ahuna, K. H., Tinnesz, C. G., & VanZile-Tamsen, C. (2014). Using self-regulated learning to increase Native American college retention. *Journal of College Student Retention*: *Research*, *Theory & Practice*.

Patterson, D. A., VanZile-Tamsen, C., Black, J., Billiot, S., & Tovar, M. (2013). A comparison of self-reported physical health and health conditions of American Indian/Alaskan Natives to other college students. *Journal of Community Health*, *38*, 1090–1097.

Perry, R. P. (2003). Perceived (academic) control and causal thinking in achievement settings. *Canadian Psychology*, *44*, 312–331.

Peterson, E. R., Rayner, S., Armstrong, S. J., & Deane, K. (2008). *Researchers' perspectives of cognitive and learning styles* (Technical Report No. 1). Auckland, New Zealand: University of Auckland.

Pike, G. R., Schroeder, C. C., & Berry, T. R. (1997). Enhancing the educational impact of residence halls: The relationship between residential learning communities and first year experiences and persistence. *Journal of College Student Development*, *38*, 609–621.

Pintrich, P. R., & Zusho, A. (2007). Student motivation and self-regulated learning in the college classroom. In R. P. Perry & J. C. Smart (Eds.), *The scholarship of teaching and learning in higher education*: *An evidence-based perspective* (pp. 731–810). New York, NY: Springer.

President's Council of Advisors on Science and Technology PCAST (2012, February). Report to the President: Engage to excel: Producing one million additional college graduates with degrees in science, technology, engineering, and mathematics. Washington, DC: Executive Office of the President.

Reyhner, J. A., & Eder, J. M. (2004). *American Indian education*. Norman, OK: University of Oklahoma Press.

Ridgeway, M., & Pewewardy, C. (2004). Linguistic imperialism in the United States: The historical eradication of American Indian languages and the English-only movement. *Multicultural Review*, *13*(2), 28–34.

Schunk, D. H., Pintrich, P. R., & Meece, J. L. (2008). *Motivation in education*: *Theory*, *research*, *and application* (3rd ed.). Upper Saddle River, NJ: Merrill/Prentice Hall.

Shortman, P. V. (1990). Whole brain learning, learning styles and implications on teacher education. In M. M. Dupuis & E. R. Fagan (Eds.), *Teacher education*: *Reflection and change* (pp. 66–82). Retrieved from ERIC Document Reproduction Service. (ED330647)

Snyder, T. D., Dillow, S. A., & Hoffman, C. M. (2008). *Digest of education statistics 2007.* Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education.

Stairs, A. (1999). Learning processes and teaching roles in Native education: Cultural base and cultural brokerage. In M. Battiste & J. Barman (Eds.), *First Nations education in Canada*: *The circle unfolds* (pp. 139–153). Vancouver, BC: University of British Columbia Press.

Stassen, M. L. A. (2003). Student outcomes: The impact of varying living-learning community models. *Research in Higher Education*, *44*, 581–613.

Steele, C. M., Spencer, S. J., & Aronson, J. (2002). Contending with group image: The psychology of stereotype threat and social identity threat. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 34, pp. 379–440). San Diego, CA: Academic Press.

Swisher, K. G., & Pavel, D. M. (1994). American Indian learning styles survey: An assessment of teacher knowledge. *Journal of Educational Issues of Language Minority Students*, *13*, 59–77.

Uchino, B. N. (2006). Social and emotional support and its implication for health: Morbidity and mortality studies. *Journal of Behavioral Medicine*, *29*, 377–387.

U.S. Census Bureau. (2011, March). *Overview of race and Hispanic origin: 2010*. Retrieved from http://www.census.gov/prod/cen2010/briefs/c2010br-02.pdf

U.S. Census Bureau. (2012, January). *The American Indian and Alaska Native population: 2010*. Retrieved from http://www.census.gov/prod/cen2010/briefs/c2010br-10.pdf

Vermunt, J. D. (2000). Over de kwaliteit van het leren [About quality of learning]. In W. Gijselaars & J. D. Vermunt (Eds.), *Stueren voor nieuwe geleerden* [Studying for the scholar] (pp. 37–61). Maastricht, Netherlands: Universiteit Maastricht.

Walton, G. M., & Cohen, G. L. (2007). A question of belonging: Race, social fit, and achievement. *Journal of Personality and Social Psychology*, *92*(1), 82–96.

Walton, G. M., & Cohen, G. L. (2011). A brief social-belonging intervention improves academic and health outcomes of minority students. *Science*, *331*, 1447–1451.

White House. (2009, November 5). *Remarks by the president during the opening of the Tribal Nations Conference and interactive discussion with tribal*

http://openscholarship.wustl.edu/nativehealth/vol1/iss1/1
DOI: 10.7936/K7T43RGK

leaders. Retrieved from http://www.whitehouse.gov/the-press-office/remarks-president-during-opening-tribal-nations-conference-interactive-discussion-w

Williams, K. D., & Carter-Sowell, A. R. (2009). Marginalization through social ostracism: Effects of being ignored and excluded. In F. Butera & J. Levine (Eds.), *Coping with minority status*: *Responses to exclusion and inclusion* (pp. 104–122). London, England: Cambridge University Press.

Wilson, T. D., Damiani, M., & Shelton, N. (2002). Improving the academic performance of college students with brief attributional interventions. In J. Aronson (Ed.), *Improving academic achievement*: *Impact of psychological factors on education* (pp. 88–108). San Diego, CA: Academic Press.

Zimmerman, B. J. (2001). Theories of self-regulated learning and academic achievement: An overview and analysis. In B. J. Zimmerman & D. H. Schunk (Eds.), *Self-regulated learning and academic achievement*: *Theoretical perspectives* (pp. 3–17). Hillsdale, NJ: Lawrence Erlbaum Associates.

Zimmerman, B. J., & Schunk, D. H. (2001). *Self-regulated learning and academic achievement*: *Theoretical perspectives*. Hillsdale, NJ: Lawrence Erlbaum Associates.