

A Study of Resiliency of American Indian High School Students

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Relationships between resiliency and student achievement were investigated in a population of American Indian high school students in a county school district of Nevada. The Resiliency Belief System was used to assess the resiliency of students. The participants were mainly female students (62%), with local tribal affiliation (51%), with a grade point average of 2.23, and a good record of attendance. School related variables were predictive of resilience by gender, replicating the findings of earlier researchers. The results indicated a significant relationship between resiliency and gender, but a relationship between achievement and resilience was not observed.

Introduction

The public educational system fails to meet the needs of many student populations—primarily poor minority students. For many years, we have understood that the lack of an adequate education generally leads to poverty, unemployment, malnutrition, alcoholism, and even suicide (Martinez, 1985; Ryan, 1982; Van Hamme, 1996). However, for many at-risk students, the achievement gap increases until they drop out of school. The requirements of the No Child Left Behind Act (NCLB) demand that all students learn, stay in school, and meet state standards. In addition, NCLB has imposed an important framework of accountability, assessment, and evaluation for all groups including those most at-risk. The NCLB requires local and state achievement goals for all students and creates an environment that requires education leaders consider alternative approaches to improvement of student achievements—schools can no longer quietly accept failure of any group of students. Therefore, educators must address important issues that relate to student success in school. Research indicates that student resiliency is related to success for at-risk youth (Davey, Eaker, & Walters, 2003; Ungar, 2004) and studies indicate that schools can positively influence resiliency of students (Finn & Rock, 1997; Henderson & Milstein, 1996).

Purpose of the Study

In this study, we investigated relationships between measures of resiliency and selected measures associated with school success. The study was restricted to the American Indian students who were enrolled in a large county school district in Nevada; one high school is tribally controlled. More specifically, we investigated what the relationships are between grade point average (GPA), school attendance, gender, and measures of resilience.

Definition of Resiliency

Dugan and Coles (1989) defined resiliency as “the capacity to bounce back or recover from a disappointment, obstacle, or setback” (p. 3). Resiliency implies characteristics of individuals that enable them to cope with difficult events and respond appropriately under pressure. Resilient individuals have the “ability to adjust and adapt to the changes, demands, and disappointments that come up in the course of life” (Joseph, 1994, p. xi). Resilient students have the capacity to overcome personal weaknesses and negative environmental conditions—they have the ability to succeed under adverse conditions. Rolf, Masten, Cicchetti, Nuechterlein, and Weintraub (1990) defined resilience as “the positive side of the study of adaptation in children at-risk due to cumulative environment stresses” (p. 179). Rutter (1990) described resilience as positive responses to stress and adversity in spite of serious risk. Jew, Green, and Kroger (1999) argued that resiliency emerges from the interaction of one’s belief system with environmental stressors to evoke an individual’s coping skills. They explain:

These beliefs include perceptions about one’s self, one’s abilities, one’s relationships, and goodness in the world. The development of this belief system may be influenced by variables such as personality, environment, and developmental stages. This definition places resiliency, as a belief system, causally prior to coping, as a set of behaviors based on a belief system (p. 76).

Resilient students develop coping skills, adapt quickly to environmental conditions, and have positive self-concepts. These students have the ability to bounce back and move on.

Nature of Resiliency

Researchers have identified characteristics that promote resiliency as protective factors—if these factors are present the student is, to some extent, protected from the negative consequences. Protective factors include: caring and supportive relationships, consistently high expectations, family support, academic success, learning skills, peer relationships, and opportunities to participate in meaningful activities (Finn & Rock, 1997; Gersten & Chard, 1999; Mrazek & Mrazek, 1987; Prevatt, 2003; Shapiro, 2000).

Resiliency has important relationships to personality, to values, and to success in school. Baxley (1993) found that resilient children possess four

important personality characteristics and abilities: social competence, problem solving skills, autonomy, and a sense of purpose and future. Bernard (1991) identified similar protective factors: resilient children exhibit social skills, problem-solving ability, a clear sense of purpose, and autonomy. Oswald, Johnson, and Howard (1999) identified the following eight characteristics of resilient children:

- having stable relationships with peers,
- possessing well-developed problem solving skills,
- considering realistic future plans,
- having a positive sense of being able to achieve and deal effectively with tasks,
- experiencing success in one or more areas of their life,
- being able to effectively communicate,
- possessing a strong attachment with at least one adult, and
- accepting responsibility for themselves and their behaviors.

These characteristics of resilient children are important correlates of academic achievement and success in school.

Resiliency Factors within Schools

For educators, factors that enhance and/or relate to student resiliency are significant because these factors can influence effective teaching and learning. In a study of urban students, Wasonga, Christman, and Kilmer (2003) found that ethnicity, gender, and age influenced academic achievement and predicted resilience. They suggested that schools, parents, community, and peers should promote protective factors by providing supportive environments and opportunities for participation in activities that promote social bonding and life skills. For at-risk students, schools must develop methods to help them become resilient learners who can succeed under adverse circumstances. In many schools, just the opposite is true. At-risk youth are ignored, suffer the humiliation of labels associated with special education placement, and are socially isolated. Support of resiliency is very important for at-risk youth because they experience significantly higher levels of school pressure and significantly lower levels of support from school, parents, and community. These students need to be resilient to just survive.

In a review of research, Winfield (1994) developed a set of recommendations that provided guidance for schools to foster resiliency among at-risk youth. She suggested that schools systematically develop a school culture, policies, and structures to enhance resiliency factors. Suggestions to schools included: promote positive peer interactions, improve extracurricular programs, encourage collaborative relationships between students and staff, and develop strong linkages with community groups.

For many at-risk youth, the expectations of school are difficult to meet and they receive few intrinsic rewards. Resilience may provide these students with

the capacity to endure their perceived negative view of school culture. Jew et al. (1999) indicated that resiliency scores were positively related to academic achievement, internal locus of control, self-perceived competency, and coping skills. Schools can help students develop these protective factors in a variety of ways. Stakeholders—teachers, parents, community members, and peers—can support at-risk students and provide opportunities for participation in activities that promote social bonding and life skills. If protective factors that enhance students' resilience can be cultivated, these students may be able to cope with the stressors of life and perform better in school.

Resiliency of American Indian/Alaska Native Students

Many would agree that Native culture is an important component in effective education of American Indian/Alaska Native students. In a review of research literature on influences of culture on academic performance, Demmert and Towner (2003) describe the importance of culture with regard to planning of educational experiences:

From a tribal and Native American professional perspective, the creation of lifelong learning environments and meaningful educational experiences for both the youth and adults of a tribal community requires a language and cultural context that supports the traditions, knowledge, and language(s) of the community as the starting place for new ideas and knowledge (p. 1).

Educators must address the challenges of establishing appropriate links between traditional culture and contemporary needs for American Indian/Alaska Native students. At a basic level, links must be provided between Native cultures, curriculum, and instruction for American Indian/Alaska Native students (Van Hamme, 1996). Van Hamme explained the important relationships between culturally relevant instruction and student achievement and insisted that educators of American Indian/Alaska Native youth must assist in the maintenance of bonds to culture. Whitbeck, Hoyt, Stubben, and LaFromboise (2001) reported that traditional culture positively affects academic performance and that enculturation was a resiliency factor. Enculturation is concerned with American Indian/Alaska Native culture, traditional spirituality, and traditional activities. Angell's (2000) case study established important links between self-concept, family support, and culture in the development of protective factors. Hilberg and Tharp (2002) established a link between achievement of American Indian and Alaska Native students, learning styles, and appropriate instructional models. Further, they recommended research to determine appropriate classroom instruction, interventions to accommodate differences in learning styles, and ways to support resiliency.

Schools are important social, cultural, and environmental sites for the development of student resiliency; studies cited have demonstrated important links between resiliency, enculturation, learning styles, effective teaching, and achievement. However, most schools reflect the dominant culture, values, and norms of society which do not promote resiliency among minority youth. American Indian/Alaska Native students, indeed, many minority students, come

from homes and communities that are significantly different from the culture of public schools. Early work by Giroux (1983) indicated that many minority students do not succeed in public schools because they resist the dominant school culture and reject institutions that devalue their heritage. The resiliency of these students is diminished rather than supported in the school setting. Unfortunately, many American Indian/Alaska Native students are forced to choose between their traditional cultures and the expectations of the schools. Schools should purposefully develop teaching and learning that support and enhance enculturation.

American Indian/Alaska Native Youth in Schools

For some time, educators have understood that absenteeism, suspensions, dropout rates, and under-achievement are indicators of schools that have failed students. By these standards, American Indian/Alaska Native students have consistently failed to receive an adequate education. Historically, American Indian/Alaska Native students have a dropout rate twice the national average; they have the highest dropout rate of any ethnic or racial group in the United States (Hillabrant, Romano, Stang, & Charleston, 1992; Reyhner, 1991). Reyhner (1991) found that only 70% of Native students graduate from high school. The above findings are consistent with the data published in the most recent report of National Center for Education Statistics (NCES) (n.d.). The 2000 data on school suspensions indicated that 8% of American Indian/Alaska Native children, 5% of Whites, and 13% of African Americans were suspended from school at least once during the preceding month. American Indian/Alaska Native children are more likely to drop out of school than White youth—15% compared to 6%. In addition, the data from National Assessment of Educational Progress (NAEP) for 2002 and 2003 indicated that fourth and eighth grade American Indian/Alaska Native youth scored lower than corresponding White youth.

A basic construct for improvement of student achievement is attendance in school. Coladarci (1983) identified three general factors that influenced the decisions of American Indian/Alaska Native students to drop out: teacher-student relationships, content of schooling, and lack of parental support. Reyhner (1991) related dropout rates of Native students to uncaring teachers, large factory-like schools, irrelevant curriculum, passive teaching methods, inappropriate testing, tracked classes, and lack of parent involvement.

At-risk students in general and American Indian/Alaska Native students specifically are in adversarial positions with respect to the expectations of public schools. Wasonga et al. (2003) reported that ethnicity, gender, and age influenced resilience and academic achievement. In addition, they concluded that non-instructional aspects of schooling affect students' resiliency. Researchers reported that student engagement is a key factor in promoting academic success for at-risk students (Connell, Spencer, & Ajber, 1994; Finn & Rock, 1997). Engagement was studied in relationship to both academic activities and non-instructional aspects of schools. Taylor (1991) pointed out that at-risk students have developed behaviors and predispositions related to school failure. Additionally, Finn and

Pannozzo (1995) reported that passive students are more likely to experience academic problems. Such studies suggest that if educators promote improved student resiliency, then those students may become more successful within the educational environment.

Methodology

Group Studied

The students in the study group were American Indian students who attended high schools within a county school district during the fall semester—student participation was voluntary. All American Indian high school students were given the option to participate in the study—109 students or 57% of the American Indian high school students enrolled in the district elected to voluntarily complete the questionnaire. The study included 42 males (38.5%) and 67 females (61.5%). The tribal affiliation of participants included: local—Paiute, Shoshone, and Washo—(51 or 47%), outside of local community (39 or 36%), and not stated (19 or 17%). Of students in the study, 25 (23%) indicated that they lived on a reservation in a rural setting and 84 (77%) indicated that they lived in non-reservation urban setting.

Instrument

In a series of studies, Jew (1991), Jew and Green (1995), and Jew et al. (1999) developed, refined, and validated the Resiliency Belief System Instrument which is based in part on early work by Mrazek and Mrazek (1987). The Resiliency Belief System Instrument consists of 50 items and provides five scores—four subscale scores and a total score. The subscale scores for protective factors reflect personal characteristics and developed skills:

1. *The Active Optimism Subscale* is comprised of 17 items that focus on the students doing things that demonstrate a sense of optimism. Sample items from the subscale include: “If I have to, I can respond quickly to dangerous situations.” “I am able to make my dreams come true.”
2. *Passive Optimism Subscale* is comprised of 17 items that focus on hopefulness and an optimistic attitude. Sample items from the subscale include: “I have a lot of hope.” “My future is important to me.”
3. *Active Belief in Others Subscale* is composed of 10 items that focus on active interaction with others and an awareness of others. Sample items from the subscale include: “I get a lot of pleasure out of giving to others.” “When something bad happens, I talk to my friends about it.”
4. *Passive Belief in Others Subscale* is composed of six items that focus on feelings toward others. Sample items from the subscale include: “I can tell when others are upset.” “People’s feelings are important to me.”
5. *Total Scores* are obtained from the consideration of all of the items on the scale.

Jew (1991) reported that the instrument had a test-retest reliability of .72 and the internal consistency reliability coefficients were all .65 or higher for all four scales and the total instrument. Jew et al. (1999) established the validity of the instrument in four studies by comparing measures of resiliency to other constructs that relate to resiliency. For our data, the alpha coefficients were .87, .85, .85, .78, and .95 respectively.

In addition to measures of resiliency, data were collected for several school-related variables: grade point average (GPA), number of periods absent, number of days suspended, and credits earned. Thus, the study considered five measures of resiliency and four indicators commonly associated with school success. The data were collected for the first semester of the school year.

Results of the Study

The grade point average for total group was 2.23 with a standard deviation of 1.09, a minimum of 0, and a maximum of 4. The average number of credits completed for participants was 2.4, with a standard deviation of .836, a minimum of 0, and a maximum of 3.5. The maximum credit that a high school student could complete during a semester is 3.5.

The semester was 88 days and each day has 6 periods; therefore, the maximum number of periods per semester is 528. For the students in the study, the average number of periods missed during the semester was 47.2 with a standard deviation of 53.5 and the range of periods missed was 0 to 327. The number of periods missed was positively skewed; most students missed very few days, five students missed more than 30 days, and one of the five missed more than 50 days.

Few students were suspended during the study—97 (89.8%) of students did not have any suspensions and three students were suspended for more than a week. Only 11 students were suspended during the semester. The average number of days of suspension was .357 with a standard deviation of 1.49. The number of days of suspension did not relate to any other variable considered; this finding is related to the limited variance of number of suspensions. Only ten percent of the students accounted for 100% of the suspensions; thus, suspensions were not an important variable for this study.

Like the number of days suspended, the number of credits completed by participants had a very restricted variance and did not correlate with any other variable in the study. Credits completed by participants had a mean of 2.42 with a standard deviation of 0.836, a minimum of zero, and a maximum of 4.0.

The Pearson product-moment correlations (r) between the Resiliency Scores and the school related variables are presented in Table 1. The only significant correlation obtained was between Passive Optimism and Grade Point Average (GPA) ($r = .2803^{**}$)—students with hopeful and optimistic attitudes tended to have the best GPAs or vice versa, students with the best GPAs were more hopeful and optimistic. To some extent, this is parallel to early work of Mrazek and Marzek (1987) who found measures of optimism and hope to be the

Table 1
Results of t-tests for GPA, Credits Earned, Number of Periods Absent, Days Suspended, and Resiliency Variable when Grouped by Gender

	Active Passive Optimism	Active Passive Optimism	Total Belief	Belief	Score
GPA	.1923	.2803**	.0771	.0274	.1890
Credit Completed	.0034	.1258	-.0786	-.1315	.0039
Periods Absent	.0970	.0767	.0506	.1278	.0936
Days Suspended	-.1150	-.0572	-.1028	-.1028	-.1275

** Significant at .01 level

most overriding characteristic of twelve factors associated with resiliency. They stated:

Optimistic people are often more attractive and more fun to be with socially. They attract other people who can facilitate good experiences for them. Optimism and hope can protect against negativism and depression (p. 362).

As expected, both GPA and credits completed were negatively related to number of periods missed, $r = -.501^{**}$ and $r = -.618^{**}$ respectively. Students who attend school have higher GPAs and earn more credits. The GPA is based on a 4 point scale.

The data were grouped by gender and *t*-tests were conducted for the school related variables and measures of resiliency considered in the study. The results are summarized in Table 2. Female students in the study had significantly higher GPAs than did their male counterparts. The female students had an average GPA of 2.4 while the corresponding score for male students was 1.9.

With respect to the measures of resiliency, the results indicate that gender is an important influence. The female students scored significantly higher than male students on all measures of resiliency. Female students scored higher than male students in the following areas:

- do things that indicate a sense of optimism—Active Optimism,
- depict hopefulness and an optimistic attitude—Passive Optimism,
- actively interact with others and are aware of others—Active Belief in Others,
- focus on the feelings of others—Passive Belief in Others, and
- are overall more resilient—Total Score.

In summary, the female students are more resilient and have significantly higher GPAs than their male peers. This finding—a relationship between gender and resiliency—is consistent with findings of Wasonga et al. (2003) and Al-Naser

Table 2
Resiliency Scores and GPA Correlations

Variable	Active Optimism	Passive Optimism	Active Belief	Passive Belief	Total Score
	Group (N)	Mean	SD	t-value	
GPA	M (42)	1.9110	1.017		
	F (66)	2.4353	1.098		-2.49*
Credits	M (42)	2.3393	0.938		
	F (66)	2.4735	0.770		-0.81
Absences	M (39)	42.9231	40.183		
	F (65)	49.7538	60.300		-0.63
Suspensions	M (42)	0.6548	2.108		
	F (67)	0.1642	1.201		1.69
Active Optimism	M (42)	79.40	11.49		
	F (67)	84.21	8.88		-2.45*
Passive Optimism	M (42)	79.69	10.74		
	F (67)	85.52	8.85		-3.08**
Active Belief	M (42)	43.31	7.74		
	F (67)	49.66	6.45		-4.62**
Passive Belief	M (42)	28.95	4.99		
	F (67)	32.06	3.67		-3.72**
Total Score	M (42)	231.36	31.56		
	F (67)	251.45	24.25		-3.74**

* Significant at the .05 level

** Significant at the .01 level

and Sandman (2000) who reported that gender influenced resilience. Thus, the data suggests that male students are less resilient; therefore, they lack characteristics commonly associated with resilient students—they need additional levels of support.

Discussion

It is important to note that the emphasis in resiliency research has shifted from identifying characteristics of children who are resilient to identifying processes that promote resiliency under conditions where everything is equal (under conditions of normality) (Davey et al., 2003). For minority students, normality is not the rule but often the exception—the status quo needs to be disrupted. Herein, is the productive framework for schools—how can educators create a supportive environment that promotes resiliency for all students?

The research suggests that resiliency of youth is affected by three major factors that are subject to improvement—family influences, school influences, and community influences. These groups can work together to provide an environment that is more supportive of youth. At an individual level, each has potential to improve resiliency. If these groups work together, the outcome will be much more productive. While more high-quality research is needed to provide definitive conclusions with regard to the factors that enhance student resiliency, a number of factors are associated with improved resiliency. In a general sense, resiliency is promoted by activities that provide support for youth, establish appropriate boundaries and high levels of expectation, encourage empowerment and improved self-concept, provide engagement in meaningful activities, and teach needed skills.

Resiliency is affected by many factors—some clearly beyond the control of the schools; others are subject to enhancement within the school setting. Schools should develop proactive programs designed to enhance resiliency of all youth, especially at-risk youth. Many approaches are relatively inexpensive: provide a caring environment for students, communicate a high level of expectation, encourage students, and provide opportunities for meaningful participation. Schools can encourage a climate of trust, respect, and support. Schools can provide safe friendly environments with clear and consistent guidelines for both academic and social behaviors.

Schools could develop programs to facilitate American Indian/Alaska Native adults' involvement within schools (e.g., community use of the library, chaperoned field trips, and making classroom presentations). Schools should proactively recruit and hire more Native adults at all levels: administrators, teachers, and support staff.

Whitbeck et al. (2001) reported that traditional culture positively affects academic performance of grade school students and concluded that enculturation was a resiliency factor in the development of American Indian children. This relationship has significant implications for curriculum and instruction. Programs, instruction, and curriculum could be designed to support Native cultures.

The community can expand opportunities for meaningful involvement of youth and develop programs to support youth both in schools and within the community. Tribal members should serve as proactive role models; for example, they could serve as mentors, tutors, and leaders for youth organizations. Tribal members should actively participate in school functions and attend school events. Some community education on the importance of supporting youth and factors that enhance resiliency would be helpful.

Clearly, the above applications and suggestions apply directly to family members. Parents can provide a stable home environment that is supportive. They should get involved with the schools, proactively communicate with schools, serve on committees, encourage their children to participate in extra-curricular activities, and attend school functions.

At the same time, instructional leaders should implement action research projects designed to evaluate the impact of planned programs on resiliency. The research suggests that male American Indian/Alaska Native students have lower levels of resiliency than do female students. Thus, additional research is needed to determine programs that would provide a higher level of support for male students. What education programs and practices promote resiliency? Data is needed to determine the effectiveness of programs designed to enhance resiliency. Researchers need to rigorously explore how tribal socialization and tribal identity promote resiliency among American Indian/Alaska Native youth.

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