EFFECTS OF SELF-ESTEEM INTERVENTION PROGRAMS ON AT-RISK BEHAVIORS OF RURAL ELEMENTARY SCHOOL STUDENTS

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Abstract

The purpose of this review of literature is to describe implications and effectiveness of promoting self-esteem enhancing programs in schools as a means of increasing academic achievement and decreasing problem behaviors. Older over-arching and generally accepted theories suggest that increasing self-esteem in students will result in an increase of academic achievement which can lower negative behaviors. Results and conclusions from longitudinal and multidimensional studies indicated that confounding factors, such as socioeconomic structures and family functioning, may have a greater effect on achievement and reducing problem behaviors than self-esteem. Recommendations for increasing academic success and lowering at-risk behavior of students should include programs and services that improve socioeconomic family structures and those that help to diminish effects of poor family functioning.
Chapter I: Introduction

Does increasing self-esteem, via intervention programs, have positive effects on at-risk behaviors of rural elementary school students? Low self-esteem, otherwise known as LSE, is considered by many to be a widespread disorder which affects millions of men, woman and more over children. Self-esteem or self-worth is simply an individual’s evaluation of him or herself as worthy. Children attend school throughout the world to learn the academic foundations that will carry them into a future rich with opportunity, but in many instances, students who suffer from LSE are unable to meet the goals and objectives of schools they attend.

Certain at-risk behaviors, such as violence, delinquency, gang involvement, teen pregnancy, drug and alcohol use, dropping out of school teen suicide, bulimia, depression, loneliness, and academic failure have been associated with students who suffer from LSE (Leary, 1999; Rosenberg et. al. 1989). Low self-esteem has long been identified as a variable that could affect these at-risk behaviors and achievement issues. According to Jessor, (1991) “Risk behaviors do not only jeopardize physical health, however. They also have psychological and social outcomes, in that they can interfere with the accomplishment of normal developmental tasks and the fulfillment of expected social roles.” Therefore, safe-guarding and bolstering of self-esteem has been a common thread in under-achieving districts as they attempt to “Race to the Top” and to meet “Yearly adequate progress” for all students.

Statement of the Problem

Intervention programs to reduce at-risk behaviors in rural elementary school settings are no exception and are widely accepted and readily implemented throughout districts. Though
these programs exist, it is not clear whether or not they produce desired outcomes such as raising academic achievement and/or reducing these at-risk behaviors. Schools still continue, in light of this question, to adopt a variety of curricula that provide specialist provisions for an individual or offer enhancement strategies that intend to bridge lows in self-esteem across an entire class or school. Poor academic functioning is one of many at-risk behaviors which are typically associated with low self-esteem (Leary 1999; Jessor 1991). Self-esteem, academic achievement, and other at-risk behaviors are extremely interconnected. Therefore, investigating relationships between low self-esteem and at-risk behaviors, such as academic achievement, schools can gain a greater understanding about effective self-esteem intervention measures that can indeed increase self-esteem, academic outcomes and/or lower other at-risk behaviors. More specifically this review aims to determine if self-esteem interventions can decrease at-risk behaviors such as inattentiveness which leads to poor academic performance. One might not be surprised, in light of these implications and the race to meet objectives, to find an immense body of research regarding self-esteem.

**Efficacy of self-esteem interventions.** Recent political movements have encouraged efforts to increase achievement and thus schools have been led to revisit long-standing assumptions from 1970’s research regarding correlations between low self-esteem and student achievement. Low self-esteem data from recent decades has emerged and threatens to undermine the plausibility of previous theories that support bolstering self-esteem as a means for raising student achievement. One group of researchers suggests, “Identifying the processes that link self-esteem to adjustment outcomes can not only inform theoretical research but also help in developing sound intervention strategies” (Caspi, Donnellan, Moffitt, Poulton, Robins, Trzesniewski, 2006, p. 388). Proper analysis of self-esteem interventions on at-risk-behaviors of
An analysis of effects of self-esteem intervention programs on at-risk behaviors of rural elementary school students will begin with an examination of theoretical perspectives of self-esteem followed by a contrast and comparison of early theory and recent research. Thorough analysis of Freud, Maslow, and Roger’s theories of self-esteem inherently lead us to generalizations that define self-esteem as an individual’s evaluation of himself. One theory suggests that people regulate a need to self-fulfill via a monitoring mechanism commonly defined as our self-concept. When external and internal stimuli or inputs are received a person manifests an appropriate output or displays specific levels of self-esteem. Given such a definition, at-risk behavior has been targeted as the perpetuation of low self-esteem in students and has caused self-esteem to become a wide-spread focus of intervention measures.
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By conducting detailed explorations of self-esteem sub-categorizations, synthesizing conditions of self-worth and applying theories contextually to at-risk behaviors and learning tendencies a clearer perspective of constructs of self-esteem and its relationship to student performance can be determined. Data obtained from a variety of studies suggest that low self-esteem produces negative influences on student outcomes. Some of these theories suggest that students will perpetuate at-risk behavior in response to lowered levels of self-esteem when their self-concept is compromised by academic struggles. Unfortunately, controversy exists in the current research as to whether or not low self-esteem is the cause of poor student outcomes or whether it is a co-effect of other variables and thus justifies more thorough examination (Leary 1999). Given these discrepancies, at-risk behaviors as they relate to academic success, will be core to this investigation. We will attempt to determine to what extent an intervention program can support self-concepts or mitigate natural responses that decrease self-esteem due to academic strife.

Theoretical perspectives of self-esteem. In an attempt to understand the implications between low levels of self-esteem and at-risk behaviors one must comprehend constructs of self-esteem. A plethora of research regarding self-esteem dates back as far as 1890 when William James identified the need to feel good about oneself as human nature (Leary, 1999, p. 32). However, extensive research regarding constructs of self did not begin until early 1970’s. Theories of self-esteem and subsequent movements produced a variety of descriptors such as self-esteem, self-regard, self-worth, and self-concept, which could certainly be to blame in part for varying research results. By analyzing early theory and eliminating inconsistencies of previous research we can finally begin to unravel underlying implications of low self-esteem and at-risk behavior.
Nearly all theorists from Freud to Rogers suggest an instinctive almost innate need to obtain fulfillment of one type or another. Whether considering Freud’s developmental stages, Maslow’s “hierarchy of needs”, or Roger’s “actualizing tendency” each approach theorizes a sequential process of fulfillment beginning with the most basic humanistic needs and ending with ultimate self-fulfillment or self-actualization. Many theorists like Rogers and James believe self-esteem is perpetuated by the inherent need to feel good about one self (Leary, 1999). So one must ask, what exactly are self-esteem, actualizing tendency, and self-actualization. Moreover, are self-esteem, self-concept, and self-regard one and the same?

There are several theories regarding the function and purpose of self-esteem. According to Coopersmith (1967), “Self-esteem is generally used to refer to an individual’s evaluation of him- or herself, including feelings of self-worth.” Self-concept, on the other hand, “is viewed as a cognitive schema that organizes abstract and concrete memories about the self and controls the processing of self-relevant information” (Campbell, 1990). Self-concept is in essence, a belief which propels the self to monitor, evaluate, or redefine the self in order to be more desirable or avoid failure. According to these definitions our tendency to self-fulfill is regulated via self-concept (monitoring mechanism) and internal and external stimuli (input) is translated into self-esteem (output).

Sociometer theory, on the other hand, suggests self-esteem is an internal mechanism which monitors a degree to which a person is accepted by his or her peers (Leary, 1999; Leary & Downs, 1995). More simply stated self-esteem, according to socio-meter theory, is the same as self-concept. As you can see, another discrepancy clearly lies within these definitions. Many studies which attempt to correlate self-esteem to behavior and academic success identify self-esteem as a construct which if elevated by positive performance feedback can offset at-risk
behaviors thus by increasing academic outcomes. Roger’s theory of actualizing tendency and Freud’s theory of self actualization suggest all living things are driven or motivated to realize an ideal self. Therefore, behavior is driven by an actualizing tendency (Pyszczynski, Greenberg, Solomon, Arndt, & Schimel, 2004).

Rogers also suggests all living things are inherently good and attempting to realize you’re ideal self can become convoluted by “conditions of worth” (Boeree, 2007). Our worth or how we see ourselves is often determined by those around us. A child’s self-worth or self-esteem is an effective response to his or her interactions with the important adults and peers in his life. The level of self-esteem a child maintains or his “condition of worth” depends greatly on how much these important people make him feel wanted, appreciated, loved, and successful. “Self-esteem and resilience are nurtured when caregivers communicate realistic appreciation and encouragement to children” (Brookes, 1994). According to these theories actualizing tendency and self-actualization are monitoring mechanisms, conditions of worth are input, and self-regard as Rogers labeled it is output. Given these definitions, self-regard, self-esteem, self-concept and self-worth can be used interchangeably and are considered an effect of perceived worth.

**Conditions of self-esteem.** To make matters more complicated, self-esteem has been sub-categorized. First, “state” or “global” self-esteem, which refers to a person’s perception of how he is currently and generally perceived by those around him, is broad in scope and susceptible to temporary changes in relational value (Leary 1999; Simpson & Boyle 1975). Ineffectiveness of global self-esteem measures are a concern, since some participants may base “state” or “global” self-esteem on different measures such as cognitive achievement or social acceptance (Simpson 1975). If higher levels of global self-esteem are brought about by social
acceptance it is unlikely, according to Baumeister et al., (2003) that this higher global esteem will perpetuate academic success.

Task specific self-esteem is a person’s expectation of performance in a specific task such as math or reading (Simpson 1975). Certain theorists believe high or low self-esteem is not as important a factor as contingencies of self-worth (task specific). For many people self-esteem is a direct result of what Rogers called conditions of worth. Schools place conditions of worth on students daily. For example, a student may have a “task specific” expectation of reading at a third grade reading level. Initially a student may value this skill and will likely increase effort to meet this condition. If he is unable to improve with increased effort, he is likely to abandon his goal and accepts failure, which is translated into lowered self-esteem (Crocker and Knight, 2005). Crocker and Park (2005) have gone as far as to say,

“Boosts to self-esteem that accompany success in contingent domains can, we think, become addictive, and pursuing self-esteem by attempting to validate one’s abilities has costs for learning, relatedness, autonomy, self-regulation, and, over time, physical and mental health.”

Do students base self-esteem on global measures or a task specific measure? Understanding which domains of condition students place more value on may be helpful when reviewing research on interventions for LSE students and at-risk behaviors. A clear perspective of contingent domains would better equip researchers to design self-esteem inventories which can successfully measure for effects of low self-esteem on at-risk behaviors.
Chapter II: Review of the Literature

Adolescents suffering from low self-esteem, also known as LSE, have been associated with acting out behaviors. Responses to conditions of worth or external and internal stimuli are believed by many to affect our motivation, attitudes, behavior, and emotional adjustment. These behaviors are believed by some to be output (self-esteem) which is in response to poor conditions of worth or unfulfilling internal or external stimuli. Bednar, Wells, and Peterson (1989) believe self-esteem is susceptible to circumstance and is high when one copes well with adversity and decreases when one attempts to avoid intimidation. These circumstances are contingencies or conditions of self-esteem.

While other theorists believe at-risk behaviors, such as delinquency or substance abuse, are coping mechanisms used to avoid negative feelings of low self-esteem, landmark studies such as that of Bachman and O’Malley (1977) and Maruyama, Rubin, and Kingsbury (1981) found self-esteem to be correlated to school performance. Like many researchers of more recent times, Bachman and O’Malley et al., suggested factors such as demographics as causal factors which affect academic achievement and self-esteem more significantly.

Correlations of Self-esteem and At-risk Behaviors

A recent large scale, multi-method longitudinal study completed by Trzesniewski et al. (2006) attempted to determine whether or not low self-esteem in adolescence could be identified as a risk factor for important future outcomes in adulthood. This study addressed risks in health such as depression, anxiety, alcohol consumption, tobacco, illegal drug usage, fitness levels, body mass indexes, blood pressure, and cardio-respiratory health, as well as, psychiatric stability. While this study doesn’t specifically address the question of whether or not self-esteem intervention programs produce increases in self-esteem and academic success it offers
correlations that are a fundamental under-pinning of self-esteem movements which have spawned intervention strategies.

Participants were chosen from those born in Dudnedin, New Zealand between 1972 and 1973. 1,037 group members were evaluated initially at age three. Assessments were continued at two to three year intervals up until age 26, when a remaining 980 participants were evaluated. This study controlled for variables such as gender, socio-economic status, intelligence, body mass index, and adolescent depression. Continuous adult outcomes were analyzed using ordinary least squares regression and were then reported using standardized betas and confidence intervals of 95%. Dichotomous outcomes were analyzed with logistic regression and reported using odd ratios with confidence intervals.

Several 6-point scale assessments, specifically designed for New Zealand social classes, were administered to determine the average SES of each participant’s family and thus identified a significant correlation of \((r = .21, p < .05)\) between low self-esteem and low SES. A Wechsler Intelligence Scale for children determined an average participant IQ of 106.72 and a significant relationship of \((r = -.03, p = .39)\) between low self-esteem and IQ. When participants were assessed for depression using the Diagnostic Interview Schedule for Children a 2:1 correlation between low self-esteem and depression emerged. Although childhood BMI was determined by standardizing and averaging BMI measurements gathered from age 5 to 11 there were no correlations between low self-esteem and adolescent BMI. Methods of data collection also included were self-reports, court recorded convictions, and informant reports. Self-esteem evaluations were also completed at ages 11, 13, and 15 years-old using one of two types of Rosenberg (1965) Self-Esteem Scales.
From this analysis Trzesniewski et al. (2006) determined that adolescents with low self-esteem are at-risk for a variety of poor adulthood outcomes as compared to their counterparts with high self-esteem. Low self-esteem was not only correlated to such outcomes, but Trzesniewski et al. (2006) went so far as to say it may in fact be causal in its relationship to future real-world adult outcomes. Data presented in this study suggests that a standard deviation of increase in self-esteem caused a decrease in negative outcomes. According to Baumeister et al. (2003) “correlations across time are often used to make causal inferences” and that one should be careful in these cases.

Though these findings are promising in light of determining the effects of self-esteem interventions on at-risk students one should investigate directionality of correlation before jumping to conclusions. In other words, is self-esteem unidirectional in that future adult outcomes or at-risk behaviors are entirely attributable to self-esteem? Or is it possible that a relationship between self-esteem and at-risk behavior or negative adult outcomes is countervailing. If this were true low self-esteem could cause an increase in at-risk behaviors while at-risk behaviors could cause an increase in self-esteem. Some researchers actually posit that high self-esteem leads to narcissism or an inflated egotism which is more likely to cause at-risk or problem behavior because narcissists tend to act out when their conditions of worth are threatened by failure (Baumeister 2000). Other theorists such as Pajares and Schunk hold premise that higher self-esteem leads to better future outcomes and that positive self-concepts can actually arbitrate other variables that effect academic outcomes (2001). Bi-directionality suggests that each variable has a considerable and equal effect on the other. High self-esteem, for example, causes positive adulthood outcomes and low self-esteem conversely causes poor
adult outcomes, which leads us to yet another study of reciprocal effects of self-esteem on behavior (Rosenberg, Schooler, and Schoenbach 1989).

**Self Enhancement and its Reciprocal Effects on Behavior**

A secondary analysis of Bachman’s Youth in Transition research of 1974, conducted by Rosenberg et al., (1989), proposes that our humanistic need to self-fulfill causes us to protect one-self at all costs which in turn creates a reciprocal effect between self-esteem and adolescent at-risk behavior. Pajares & Schunk (2001) claim that “because the causal relation between these self-constructs and achievement is reciprocal, students’ academic behaviors are a function of the beliefs they hold about themselves and about their academic potentialities.” According to the self-consistency theory students are inclined to “maintain the level of performance in school that is consistent” with their perception of their abilities (Rosenberg et. al., 1989). Attempting to protect oneself by putting forth less effort or not working to potential, according to Covington and Omelich (1979), is less damaging than failing due to academic ineptitude. Self enhancement theory, also referred to as self-defense theory, has suggested that self-esteem and delinquency could be countervailing in that delinquency can increase self-esteem while lows in self-esteem can increase delinquency (Jang & Thornberry, 2007).

Bachman collected his first round of data for his Youth in Transition research by sampling 2,213 boys from a variety of high schools within the United States in 1966 followed by a sampling of 1,886 of those same boys in 1968. A modified Rosenberg Self-Esteem Scale was used to measure global self-esteem and self reports were utilized to measure school performance, delinquency, and depression. Rosenberg estimated two points of data for delinquency, depression, and self-esteem in order to complete a full information linear structural equation model. The elimination of Bachman’s 1968 cross-lagged data allowed for a “source of
instrumentation of the reciprocal effects” and utilizing “multiple instrumental variables”
provided grounds for reciprocal effects. Data from 1966 and academic achievement, honesty,
social skills, social responsibility, and religiousness were used as instrument variables for self-esteem.

Instrument variables for school grades included number of hours spent on homework,
negative school attitudes, positive school attitudes, school motivation and valuation of academic
achievement while instrument variables for self-esteem were positive family relations, number of
best friends, physical attractiveness, and stability of self-concept. Variables such as race, age,
intact family structure, father’s education, mother’s education, family socioeconomic status,
fathers and mother’s Duncan occupational prestige scores, and number of siblings were treated
as controls. Grades had a +.15 effect on self-esteem and self-esteem on grades was +0.8. Based
on this data it is reasonable to suggest that school grades have a greater affect on self-esteem
than the reverse and thus it can be determined that the relationship is unidirectional.

General anxiety, anxiety and tension, and psycho-physiological indicators of anxiety plus
the interviewer’s ratings of each participant’s general physical appearance, complexion, and
physical maturity were used as instrument variables for delinquency. Self-esteem instrument
variables included academic achievement, honesty, social skills, social responsibility, and
religiousness. Variables such as age, race, intact family structure, father and mother’s education,
father and mother’s Duncan occupational prestige scores, family socioeconomic status and
number of siblings are also included as controls. The effects of self-esteem and delinquency were
also tested in different socioeconomic status groups since delinquency is expected to vary among
SES groups. Significant results emerged in both high and low SES groups when establishing
effects of self-esteem on delinquency; however, the higher SES group was most significant.
Results showed a significant association between self-esteem and increases in delinquency (-.19) and delinquency was found to be close to correlating with increases in self-esteem (+.08) suggesting a bidirectional as well as countervailing relationship.

Academic self-concept was an instrument variable for depression and subjective physical health was used as an instrument variable for self-esteem. Race, age, intact family structure, father and mother’s education, socioeconomic status, father and mother’s Duncan occupational prestige scores, and number of siblings were used as controls. Depression effected self-esteem (-.27) and the effect of self-esteem on depression was (-.21). Results were more significant in the low SES group than in the higher SES group, but both showed results that were substantial enough indicating a bidirectional relationship.

This study suggests modest reciprocal relationships between depression and self-esteem and delinquency and self-esteem whereas a unidirectional correlation between self-esteem and school grades suggests that self-esteem interventions would be ineffective at raising school grades. While this study gives some validity to theories of reciprocal effects it suggests that researchers such as Pajares (2001) could be right in that self-concept or self-esteem is simply a mediating factor of social motivational processes that in turn affects achievement outcomes. Therefore, in order to better understand variables that affect these correlations one must consider social-motivational processes which affect school performance.

**Social Motivational Processes as Determinants of Academic Achievement**

A surplus of research yielded a particular study, by Wentzel (1999), regarding social-motivational processes as they relate to school success. This meta-analysis of theory and research is inherently different than most in that it attempts to unravel the inter-connectedness of effects of self-esteem on academic successes in school. This jumping off point naturally leads to
a comprehensive synthesis of self-esteem intervention programs, theories and methods. Understanding motivational processes that drive self-esteem constructs will allow us to better ascertain whether or not self-esteem intervention programs are affective in producing positive academic changes and in reducing at-risk behaviors.

Social-motivational processes are described as monitors of social acceptance, mediators of personal goals, beliefs about ability, and causality or locust of control (Galbraith & Alexander 2005; Leary 1999; Crocker & Knight 2005). Academic success is considered by many to be contingent upon socially orientated and academic motivations. Wentzel posits that, “social-motivational processes play a role in motivating individuals to achieve social outcomes in much the same way that academic motivational processes influence academic outcomes.” A linear trajectory is described in which effects of socialization processes determine social and academic motivational processes, otherwise known as, goals. Social and academic goals are in this theory determinants of academic achievement and thus lead us to an investigation of self-esteem enhancement strategies which is the foundation of this evaluation.

Social cognitive theory may, according to Pajares (1996), “entail regulations of one’s own motivation, thought processes, affective states and actions, or changing environmental conditions.” He goes on to explain how beliefs of self-efficacy [self-esteem] are typically task or situation specific and are used to guide motivational processes. Sanchez’s results are authenticated by this theory in that increased academic [specificity] self-esteem leads to increased performance in contingent domains such as language arts, mathematics and general academic performance areas. These findings also replicate or support theories of reciprocal relationships in that increases in academic self-concept suggest an increase in academic
performance and conversely a decrease in academic self-concept will likely result in lowered academic performance.

Given this theory, students will likely persist with increased motivational processes such as higher goal setting as an indirect response to high academic self-esteem which indirectly affects achievement (Pajares 1996). Conversely, according to Brooks, “behavior such as quitting, avoiding, cheating, clowning, bullying, denying, or making excuses often signals that a child is feeling vulnerable and is attempting to escape from challenging situations he or she believes will lead to failure.” This theory suggests that rather than looking at over-generalized aspects of self-esteem to link increases in academic achievement interventions one must look at specificity of academic self-efficacy or esteem.

Causal models between Self-Esteem and Academic Achievement

Sanchez and Roda (2003) hypothesized in a recent study that one of four different causal models could be at work between self-esteem and academic achievement. They stated that

[…]academic performance determines self-concept, or levels of self-concept determine the degree of academic achievement, or self-concept and academic performance influence and determine each other mutually, [or lastly there could be] (…) additional variables that may be the cause of both self-concept and of academic performance” (Sanchez 2003).

Enhancing levels of self-esteem through intervention methods could be a plausible avenue for increasing achievement scores and diminishing at-risk behaviors if Sanchez’s (2003) theory that “levels of self-concept indeed determine the degree of academic achievement” is true and if Brooks is right in that problem behavior is manifested when a student externalizes academic difficulties.
Measurements of self-concept and academic performance were collected in this study from sixth grade students age 11 to 13. A total of 245 volunteer students from six different schools were sampled. Teacher evaluations were used to determine Global performance measures which were then translated into performance scores. A Spanish version of Marsh, Parker, and Smith’s SDQ containing three subscales were utilized to measure self-concept. Tests were administered collectively within each classroom of students. Academic subscales of self-concept contained cognitive, affective, and reading self-concept measures as well as relationship with parent self-concept measures. Non-academic self-concept subscales contained measures for physical appearance, physical ability and sports, as well as relationships with peers. Total self-concept was a combination of all seven subscales.

Factorial structure and psychometric indices were measured to determine construct validity comparative to other studies. Constructs were determined by first order and second order factorial analysis to be multi-dimensional and hierarchal in organization. Academic and non-academic domains of self-esteem are essential components of multidimensional and hierarchical models as seen in Sanchez’s study. Total scale alpha coefficient was .8524, academic alpha coefficient was .8730, non-academic alpha coefficient was .8075, and itemized subscale alpha coefficients ranged from .6757 to .8790 with an average of .7773. Sample of suitability was 0.794 and tests for specificity had statistical significance. These measures combined with saturation indices above .35 and accounting for percentages of variances produces credibility for construct consistency.

Some theorists believe that self-esteem interventions targeted for domain specific areas will invoke greater change in those areas while interventions that are more global in scope are not as likely to affect domain specific areas (Marsh & Craven 2005). Having determined this
Sanchez concluded that “total self-concepts predict academic performance” and that “non-academic self-concept negatively affects school achievement.” Most noteworthy perhaps is a highly significant relationship between academic self-concept and performance in language arts, mathematics and general achievement.

When analyzing results of this study patterns of correlation emerged. Academic self-concept was positively and significantly correlated to language arts, mathematics, and general academic performance areas whereas non-academic self-concept was insignificant or negatively correlated to all three academic performance areas aforementioned. Language arts, cognitive, and general academic performance areas were moderately associated with each subscale and a slightly higher correlation existed with mathematics. Reading correlated more modestly with mathematics, general academic, and language arts performance areas. Parent relations conversely produced a null correlation to language arts, mathematics, and general academic performance, but parent relations slightly correlated to non-academic subscales of physical appearance, ability and sports, and classmates. Self-concept of math in affective dimension correlated slightly with language arts and general academic domains while scoring slightly higher yet with mathematics. Sanchez determined that total self-concept and academic self-concept correlates positively to general academic performance and that lower levels of non-academic self-concept can predict lower general academic performance overall (2003).

**Relationships between Academic Achievement and At-risk Behaviors**

A shift from previous unidimensional perspectives of self-concept research to more modern multidimensional models such as those suggested over 35 years ago, by Shavelson, Hubner, & Stanton, have created new momentum in studies of self-esteem and subsequent attempts to find correlations or causal relationships with, self-esteem, academic achievement, and at-risk behavior (1976). Findings from multiple studies support the relationship between low academic
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achievement and at-risk behaviors such as aggression, anxiety, attention deficit/hyperactivity disorder, negativism, and depression (Williams and McGee, 1994; Stevens and Pihl, 1987; and Leary 1999). Even though correlations between academic achievement and self-esteem are supported by a number of studies Baumeister suggests, however, that teasing out a causal relationship between self-esteem, improved academic performance, and reductions in problem behavior has been sketchy at best (2003).

In order to fully analyze relationships between behavior and self-concept one should consider whether unwanted behavior in school is a perpetuation of low academic self-esteem (specificity) or whether it is a perpetuation of global self-esteem. If at-risk behavior is a result of low self-esteem caused by task specific failure in academic achievement arenas it stands to reason, according to social cognitive theory, that increasing academic achievement would then result in higher academic self-concepts thereby potentially decreasing behavior associated with it (Bandura 1977). Given these theories, a thorough examination of the links between academic related achievement and self-concepts can further clarify how effective self-esteem interventions are in reducing at-risk behaviors.

One researcher suggests that low self-esteem triggers “troublemaking” behavior and by increasing self-concept one can diminish unwanted behaviors (Marsh 2006). In a review of their own self-concept research Marsh et. al. stated that, “different components of self-concept (e.g., social, physical, emotional, academic, self-esteem) are highly differentiated and cannot be explained in terms of a single global component, as implied in a undimensional perspective.” They described instead a multidimensional study, based on previous groundwork of Shalveson et. al, in which self-concept components were divided into academic and non-academic related domains (1976). Non-academic components in this model were subdivided into physical, social, and emotional components that were further subcategorized. Academic domains were subcategorized into self-esteem aspects that were task
specific to academics. In this model task specificity is core to “developing a reciprocal effects model to evaluate the causal ordering of self-concept and important criterion.” (Marsh and Craven 2005).

In groundwork studies of their own, Marsh and Trautwein et. al., demonstrated correlations between specific subject areas and related academic self-concepts and in doing so concepts of multidimensional studies is thereby reinforced. By utilizing criteria that was task specific to outcomes a significant association between academic subject self-concepts and resulting grades were observed. Results were insignificant in all academic domains when testing for similar relationships utilizing a more global construct such as overall self-esteem.

Yet another study regarding the relationship between behavior and academic achievement was completed by Barriga et. al. in 2002. The study was designed to analyze at-risk behavior in eight domains as it related to overall academic achievement and task specific reading, arithmetic and spelling achievement. Participants were comprised of 41 boys and 17 girls from an alternative high school. Student behavior rating was based on teacher reports and included measures for anxiety/depression, social problems, thought problems, withdrawal, somatic complaints, delinquent behavior, aggressive behavior, and attention problems. Behavior data was collected using Achenbach’s multidimensional Teacher Report Form (TRF) Ages 5 to 18 (1991b). An academic performance scale was also used to measure teacher’s perceptions of student achievement across several subject areas. One month into the program all students were given a Wide Range Achievement Test. An average of each student’s reading, spelling, and arithmetic scores from their WRAT were used to calculate a composite score for overall achievement.

As in other studies demographics variables such as gender, ethnicity, and chronological age were considered potentially influential in mediating at-risk behavior and/or academic achievement, therefore these confounding factors were taken into account. In doing so,
researchers determined insignificant relationships for gender and ethnicity in relation to at-risk behavior and no substantial results for chronological age. As for academic achievement researchers noted that ethnicity had significant correlations while gender and age were of no association to academic achievement. Given the findings none of the aforementioned variables were used as controls for this study.

With linear relationships determined researchers were able to confirm substantial correlations between academic achievement measures and attention problems, withdrawal, somatic complaints, delinquent behavior, and aggressive behavior scales, whereas the remaining three domains proved insignificant. Multiple regression analyses were also used to determine if somatic complaints, delinquent behavior, withdrawal, and aggressive behavior were associated with academic achievement when controlling for attention problems in which case they were. Results from these analyses suggest that attention problems may in fact arbitrate associations between academic domains and somatic complaints, delinquent behavior, withdrawal, and aggression.

This study further determined that inattentiveness and hyperactive-impulsive subscales of attention domains were significantly correlated to each academic achievement measure, but not when examined independently. A subscale of inattentiveness was more significantly correlated, however, than hyperactivity-impulsive when associated with overall academic achievement compared to each individual domain. While results of this study clearly show a connection between five out eight behavior domains results also suggest that a relationship between attention problems or inattentiveness may be bivariate in that both at-risk behavior and low academic performance can be negatively affected by it.

**Interventions in Early Childhood**
A longitudinal preschool intervention project for children conducted by Westinghouse-Ohio University National Head Start evaluation program looked at students from low-income families and attempted to determine effects of achievement self-concepts and aptitudes relating to achievement on later school performance (Gray & Klaus 1970). Interventions were designed to promote behaviors or attitudes that have a tendency to produce academic achievement. This study, according to Gray and Klaus (1968), was designed to address particular constructs of attitude such as, “achievement motivation, persistence, delay of gratification, and interest in school-like activities” as well as areas of aptitude such as, “perception, concept acquisition, and language development.”

Subjects were chosen based on their parent’s education, income, occupation, and housing situation. A total of 88 African American subjects born in 1958 were studied. Remaining students were randomly divided into three sub-groups. Each intervention group met five days a week for 4 hours a day throughout the 10-week period. Students receiving interventions participated in a relatively typical preschool setting with exception to increased numbers of adults which provided for immersion in language. Each group was lead by one qualified primary teacher and 4-7 college students who were recruited as teaching assistants. Group one received 10-weeks of preschool programming, each summer for three years, which was designed to offset deficits that typically place economically disadvantaged students at-risk. Home visits were conducted weekly when preschool was not in session. Group two received only 2 years of interventions while group three received no interventions. A fourth group made up another control group that was comprised of 27 students from a similar, but neighboring town.

Early interventions in areas of attitude or social motivational processes utilized positive and concrete feedback in contingent domains. Attributional feedback was given liberally for any
amount of effort produced which could in turn manipulate variables. Attributional feedback was gradually diminished in order to move students from a need for “concrete reinforcement to more abstract and internalized reinforcement” also known as internally focused feedback or self-talk (Klaus & Gray 1968). Interventions initially capitalized on student strengths as means for encouraging sustained efforts, increasing motivation, and to improve performance at tasks which eventually proved more difficult. These same interventions were eventually implemented to train students to “accept” delayed gratification in lieu of a “bigger” payoff.

A variety of standard intelligence tests such as Stanford Binet, Wechsler Intelligence Scale for Children (WISC), Peabody Picture Vocabulary Test (PPVT), and Illinois Test of Psycholinguistic Abilities (ITPA) were administered at varying intervals of intervention in addition to a variety of non-standardized tests. Metropolitan and Gates Reading Readiness, Metropolitan Achievement, Primary Battery, and Stanford Achievement Tests were administered in first, second, and/or third grade. Results from WISC and Binet intelligence tests show positive effects within both experimental groups. Both language tests proved positive results in both experimental groups up until first grade. Nearly one third to half of reading readiness and achievement results showed significant increases within experimental groups. While these gains can be considered modest at best it should be duly noted that gains were sustained for four years.

Lastly, a Standford Research Institute’s observational study conducted by Stallings and Kaskowitz (1974) analyzed data gathered from primary school students. Their study encompassed 342 classrooms and documented use of materials, behavior data, methods followed, and social interactions of participants (Scheirer). Discrepancies in teaching methods such as Behavioral learning and open education approaches were noted. Behavioral learning is premised on structured curriculum delivery that is contingently reinforced with appropriate
positive feedback and thus increases or decreases in self-esteem are considered consequential to academic success or failure not as a necessary precondition for academic achievement as open education models propose.

Despite variables in theory and classroom methods data outcomes from this study support behavioral learning theory in that self-concept is not a prerequisite for academic achievement as open education posits. Those students who were exposed to structured methods with appropriate attributional feedback, according to results of this study, achieved greater gains both academically and in areas of self-esteem. These results are also corroborated by previous studies that confirm academic achievement as a causal effect of increased or positive self-esteem (Rosenberg et. al., Ross & Broh, 2000).

**Internally Focused and Attributional Feedback Interventions**

A study completed by Craven (et. al., 1991), aimed at increasing academic self-concept via internally focused and attributional feedback, utilized multidimensional measurement instruments. Intervention based on internal and attributional feedback is consistent with attachment theories. According to Wentzel (1999), R.M. Ryan’s attachment theory model suggests that

“(…) within the context of a secure parent-child relationship in which caregivers provide contingent feedback, nurturance, and developmentally appropriate structure and guidance, young children develop a generalized positive sense of social relatedness, personal competence, and autonomy when presented with new experiences and challenges.”

Given this study was designed to extend positive performance feedback and to model appropriate internal feedback one would naturally hypothesize an increase in student achievement.
A sampling was chosen from upper elementary grade middle-class suburban students. These students were identified based on scores which were in the bottom three quarters of the Self-Description Questionnaire (SDQ) administered during second term. Marsh’s Self-Description Questionnaire is comprised of three academic self-concept measures and four general self-concept measures. A customized SDQ was also created to “measure pupils’ perceptions of their teachers’ evaluations of pupil self-concept.” Each student was assessed with school selected pre and post-tests. A Sydney Attribution Scale was also used to determine students overall academic self-attributions utilizing questions based on academic subject area, outcomes, and perceived causes.

Nine out of 18 students per class were assigned to the control group with remaining students divided into experimental groups. Experimental groups were sub-divided into groups of three students who received either teacher-administered, researcher-administered, or teacher/researcher administered interventions over a course of eight weeks. Teacher administered interventions were presented within the context of the daily classroom routine, while researcher administered interventions were conducted as pull-out services. Students in experimental groups were offered statements of internally focused feedback and internal attribution statements based on conditional performance measures while control group students continued to receive standard measures of praise.

This study was designed to examine effects of internally focused feedback and attributional feedback interventions on academic self-concepts. Premises of this study suggest that raising self-concept or self-esteem in specific areas of academic related constructs should result in theory to increases in academic achievement and decreases of at-risk or acting out behaviors as seen in a previous study by Barriga et al. (2004). Statistically significant results
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were recorded in areas of peer self-concept \( F(1.126) = 5.892, p < .05 \), general self-concept \( F(1.127) = 5.986, p < .05 \), academic self-concept \( F(1.125) = 7.736, p < .05 \), school self-concept \( F(1.125) = 5.330, p < .05 \), and mathematics self-concept \( F(1.126) = 7.334, p < .01 \), and specifically reading self-concept \( F(1.126) = 5.693, p < .05 \) when administered by a researcher. While feedback delivered by researchers raised self-concept combined teacher/researcher feedback interventions were not effective beyond those interventions administered by researcher alone and teacher administered interventions had null results. In other words, interventions were modestly affective in increasing self-concepts when administered as pull-out services by a researcher rather than within a classroom setting and presented by a teacher.

Another aim of this study was to measure student’s self-attributions or perceptions of ability, effort and external influences as they relate to their success or failure in academic situations. Students who received researcher treatments had a modest correlation of \( (f(1, 118) = 4.772, p < .05) \) regarding effort during success situations compared to counterparts who didn’t receive treatment, suggesting that internally focused and attributional feedback could be relevant to increasing effort thus by increasing success in contingent domains. Teacher administered interventions were, however, ineffective on ability, effort, and external influences. Researcher administered interventions were ineffectively correlated to ability and external influences as well.

Teacher interventions were tested for reliability by incorporating a questionnaire (modified SDQ) that evaluated how each student perceived their teacher’s opinions about their general, school, and physical self-concepts. General self-concept, \( F(1,118) = 4.150, p < .05 \), school self-concept \( F(1, 118) = 5.788, p < .05 \), and physical self-concept, \( F(1118) = 4.254, p < .05 \) results suggest that interventions produced null correlations to student ratings of teacher
opinions. Craven (et. al., 1991) suggests that this could be due in part because students didn’t find teacher feedback as believable and/or they didn’t perceive the differences in teacher praise as out of the ordinary.

Pretest scores were utilized to determine whether or not prior self-concept or prior achievement level correlated with reading or mathematics interventions. A bi-directional correlation of reading self-concepts (F (2, 76) = 4.842, p < .05) and researcher interventions emerged. More specifically, students who had low reading self-concept prior to interventions were impacted more significantly. Conversely researcher interventions had a null effect on prior mathematics self-concept and teacher interventions were null for both prior mathematics and prior reading self-concept. Researcher and teacher interventions had insignificant correlations with prior mathematics and reading achievement. When effects of researcher interventions on prior reading achievement were assessed a result emerged F(2, 76) = 2.696, p = .07 that was near statistical significance. Though most of these correlations are considered modest at best, Craven (et. al.), still suggests that internally focused and attributional feedback may provide an effective method for increasing student achievement via increased academic self-concept.
Chapter III: Results and Analysis Relative to the Problem

After thoroughly examining a number of studies relating to self-esteem, academic achievement, at-risk behaviors, and interventions to mediate outcomes we can begin to see how methodical research has evolved to incorporate multi-dimensional analyses that can more accurately measure relationships between self-esteem constructs, academic achievement, and at-risk behavior. Methodological flaws that limited previous studies place contradictory results in a somewhat different light. By narrowing our focus from a broad scope of studies using global self-esteem into a more focused approach that relates academic self-esteem, which measures a task specific domain of self-esteem, with commonly exhibited problem behaviors in students we are able to develop a better understanding of implications resulting from low self-esteem in school aged children.

Self-esteem and at Risk Behaviors

Research conducted by Trzesniewski et al. (2006) showed a 2:1 correlation between self-esteem and poor adulthood outcomes suggesting that increasing self-esteem by one standard deviation decreases “at-risk” behavior. Given these findings the recent momentum for self-esteem research as it relates to reduction of “at-risk” behaviors and increasing achievement is relevant. Results of this study substantiate, if only moderately, use of school intervention strategies to reduce at-risk behaviors. Implementing such programs could have, according to Trzesniewski’s study, positive implications that follow a youth beyond his educational years into adulthood.

Some studies, such as those done by Bachman, utilized multidimensional variables and investigated for reciprocal relationships between self-esteem, at-risk behaviors, such as delinquency and depression, and school performance. Results of Bachman’s research elucidates
a bi-directional correlation that further supports self enhancement theories as a means for increasing academic achievement and lowering at-risk behaviors associated with poor achievement. One might argue, however, that Bachman’s study also demonstrated that poor achievement decreases self-esteem whereas increases in self-esteem do not raise school grades. Therefore we need to have a degree of skepticism toward the theory of bi-directional correlation. Another potential pitfall to Bachman’s study could be his use of global constructs to measure self-esteem, delinquency, and depression. Although his study used multiple instrument variables they were general in nature especially in regards to school grades. Therefore correlations that proved increasing self-esteem causes decreases in delinquency and depression may prove insignificant if instrument variables took into account specific academic self-concepts in specific content areas.

Though Bachman’s study leaves uncertainty in light of whether or not self-esteem interventions can decrease at-risk behaviors, other studies, such as that done by Barriga et. al., look more specifically at contingent domains of behavior as they relate to academic achievement in specific school subjects. In doing so, they found significant correlations that suggest behavior problems, especially attention deficits, as variable that can negatively affect academic achievement. Another avenue to consider in these studies is that self-esteem might indirectly affect student grades rather than directly.

Leary suggested that low academic achievement or performance can be a risk factor, among others, that are affected by low self-esteem. With that in mind, one must consider whether or not raising self-esteem could increase academic achievement just as raising self-esteem in previous studies caused a decrease in other negative behaviors such as delinquency. Yet another perspective discussed previously is reciprocal effects created by what Pajares and Schunk called
our “humanistic need to self-fulfill. In this theory at-risk behavior such as delinquency could be a protective factor that is perpetuated when students faces failure in contingent domains such as math or reading competency. Though academic achievement, as we have seen, is not necessarily a direct cause of problem behaviors it can, in this case, be indirectly related when a student’s academic self-concept becomes weakened by poor achievement. Therefore, it stands to reason that self-esteem in contingent domains can play a vital role in increasing positive behavior such as better academic performance as well as decreasing unwanted behavior such as aggression or delinquency.

“Students’ academic failures in basic subjects, as well as the misdirected motivation and lack of commitment often characteristic of the underachiever, the dropout, the student labeled “at risk,” and the socially disabled, are in good measure the consequence of, or certainly exacerbated by, the beliefs that students develop about themselves and about their ability to exercise a measure of control over their environments” (Pajares 2001). Self-esteem, whether directly or indirectly, affects social motivational processes in varying degrees which inherently affects overall achievement.

Determining causal relationships has been an underpinning of self-esteem research to this point and thus levying a better understanding of whether or not self-esteem intervention programs are effective at reducing at-risk behaviors, which include, but are not limited to poor academic achievement, in elementary school students is vital. Studies such as those done by Sanchez and Rhoda used multidimensional subscales of academic self-concept, which given what we have reviewed, is directly in line with current best practice in self-esteem studies. Results were indicative of those that claim substantial correlations between academic self-concept and academic achievement and this is likely due in part to the task specific nature of the
study. Had the components of this study been strictly global in nature causal relationships between general academic performance and would have likely been null.

**Structured Measures, Focused Self-esteem Interventions, and Academic Achievement**

Gray & Klaus’s 1970 study showed that those students who were exposed to structured methods with appropriate attributional feedback achieved greater gains in intelligence, reading readiness, and language developments. This intervention or strategy is consistent with behavioral learning theory or methods, which is premised on structured curriculum delivery that is contingently reinforced with appropriate positive feedback. This study gives strong support to effectiveness of intervention measures on academic achievement even though gains were modest. Could there have been stronger correlations had methods such as attributional feedback in task specific self-concepts been applied to specific domains of academic achievement? In other words, would identifying subjects who have poor academic achievement in math for example sustain greater gains that would be longer reaching if attributional feedback techniques were implemented to boost self-confidence which could thereby increase motivation in those who typically fail to persist? However, poignant and salient arguments made by proponents such as Gray are hard to dispute:

"The most effective intervention programs for preschool children that could possibly be conceived cannot be considered a form of inoculation whereby the child forever after is immune to the effects of a low-income home and of a school inappropriate to his needs. Certainly, the evidence on human performance is overwhelming in indicating that such performance results from the continual interaction of the organism with its environment. Intervention programs, well conceived and executed, may be expected to make some
relatively lasting changes. Such programs, however, cannot be expected to carry the whole burden of providing adequate schooling for children from deprived circumstances; they can provide only a basis for future progress in schools and homes that can build upon that early intervention (Gray & Klaus (1970).”

A more recent study conducted by Craven (et al. 1991) further objectifies data found in Gray’s (1970) study.

Attributional and internally focused feedback was utilized as an intervention measure to increase reading and mathematics self-concepts and effort in Craven’s study (1991). While minor correlations with increased reading self-concepts emerged from data gathered when researchers gave feedback these correlations were considered null when administered by teachers. Teachers only managed to give approximately one third of intended feedback interventions per student, which could be a limiting factor which accounts for insignificant results when classroom teachers were administrators of prescribed feedback. Plus, pre-test and post-tests were heavily relied upon rather than simply using more effective methods such as a control group. Researchers gave feedback in small groups as pull-out services, while teachers presented feedback within the whole group which is a variable that could have skewed potential outcomes between teacher and researcher statistics.

Both Gray and Klaus and Craven’s studies show some hope of efficacy of increasing academic achievement or decreasing behaviors with intervention methods such as internally focused and attributional feedback. Future studies that take into account potential methodological flaws of present studies, but that attempt to replicate or increase correlations of these studies could prove rather insightful even though opponents such as Baumeister (et. al.,
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2003) claim that, “modest correlations between self-esteem and school performance do not indicate that high self-esteem leads to good performance.”

While this study aimed to determine whether self-esteem interventions were feasible in raising self-esteem and decreasing at-risk behavior it was difficult to impossible to locate studies in which rural elementary school students were sampled. One study in particular looked at early childhood interventions, but

**Chapter IV: Recommendations and Conclusions**

Linking relationships between low self-esteem, academic achievement, and at-risk behaviors has been a long standing aim of many researchers. Reaching an agreement about effectiveness and efficacy of self-esteem interventions on academic achievement or at-risk behavior has been contentious at best. This quandary likely exists because of how many different theoretical perspectives there are relating to constructs of self-esteem, not to mention, difficulties presented when navigating a vast population of contradictory research.

**Recommendations**

Long standing opponents of self-esteem movements suggest that weak correlations between constructs reviewed previously are controversial in that they fail to identify consistent causal relationships between low self-esteem and increases in academic achievement or reductions of at-risk behavior. Self-esteem constructs are as unique to an individual as self-esteem is to predicting future outcomes, so if reaching an unambiguous answer to whether self-esteem interventions will increase achievement and decrease other at-risk behaviors is necessary then the question will likely remain uncertain forever. However, if identifying several poignant studies that have begun to scratch the surface of a deeply entangled phenomenon gives hope that we are on to something productive then I suggest that we continue to dig deep.
Areas for Further Research

Further investigations that employ sound methods such as multidimensional constructs and that take into consideration relationships between task specific self-esteem and subject specific academic concepts will be necessary to further our understanding of the implications for sound interventions. Increasing academic achievement and decreasing other unwanted behaviors via self-esteem interventions in elementary school systems will require additional research that looks more specifically at research based intervention programs. More studies of students, specifically those that target students in rural communities and in early elementary settings are also needed in order to truly understand potential relationships between esteem building and behavior modification. Though some of these theories have been extrapolated from results of one study to results of another, such as decreasing behavior by increasing academic self-concept in specific subjects, a basis for further research has certainly been unearthed.

Summary and Conclusion

Findings such as those seen in this review allow a controversial self-esteem pendulum to swing erratically. Modest to substantial correlations between self-esteem and academic achievement are hard to believe at best because of nearly a half century of contradictory research. Current and past research has provided equally diverse findings such as those that disprove correlations between self-esteem and academic achievement; to those made by several researchers that make modest claims suggesting at-risk behaviors such as truancy, poor academic achievement, and increased deviance are indirectly affected by low self esteem. Those studies that focused on a narrowly scoped task specific construct of self-esteem as it related to specific subject related constructs were promising in getting one step closer to determining efficacy in self-esteem programs that increase academic self-esteem in contingent domains and deter at-risk
behavior. In doing so, a few promising studies suggest that by decreasing a student’s “protective” self-concept mechanism we can stave off negative behaviors and instead increase academic achievement by using internally focused and attributionally focused feedback.

References


