Resiliency and the Individual Demographics of School Leaders: Making a Difference in the Quality of Educational Leadership

Albert J. Isaacs
University of North Florida

Abstract

The purpose of this quantitative study was to investigate the relationships among the dimensions of resilience and the individual demographics of high school principals toward strengthening the leadership abilities of school principals. The study employs the survey method in its research design. Those surveyed included 68 high school principals, from 6 school districts in the State of Florida. The investigation used an on-line questionnaire to collect data on the dimensions of resilience and demographics of these principals. The data were analyzed by using the Independent Sample T-test. Hypothesis testing was introduced to determine statistical significance. The statistical significance level was set at p (probability) < .05. The investigation found significant relationships among the resilience dimensions of Positive, Flexible, Organized, Focused and Organized, and the individual demographics of these school principals. The application of the dimensions of resilience can be utilized as a powerful competitive advantage for any educational institution facing major changes. Principals who accept the resilience model reflect greater change adaptability. Resilient principals who manage change successfully not only improve their school's performance but also become more effective leaders. To achieve lasting change, though, they must stay sensitive to the external realities, in this global environment, and encourage faculty, staff and students to be open-minded to the world outside and the boundaries of the school. Therefore, school principals should be ahead of change and not behind it trying to catch up (Kouzes and Posner, 2002).

Throughout history, good educational leadership has been the focus of intense, debate and speculation. Moreover, the importance of the principal as a key factor in the success of a school has rapidly become a major focus of current efforts to improve education. The principal of today and tomorrow faces a rapidly and continuously changing environment.

Schools are aware that they need to adapt to rapidly changing times. Therefore, principals must be more than administrators; they must facilitate change in the school by structuring challenges with reasonable risk to improve their leadership and management skills and the school's progress and success (Osburn, 1993). According to Cunningham and Cordeiro (2000) leadership is about doing the right things, management is doing things right, and the administrator is responsible for both functions. Indeed, administrators are expected to be effective leaders and efficient managers.

Furthermore, principals should also demonstrate high levels of educational leadership to address complex and changing tasks (Whitaker & Turner, 2000). In order to respond creatively, flexibly and quickly to the changing realities of life outside the school, the principal requires certain skills to deal with their circumstances, oversee change and improve student achievement. Conner (1993) posited that the "ability to confront change in a way that maintains or enhances current levels of functioning is a critical element of productive human existence" (p. 89). Garmezy and Masten (1996) maintained that to master change successfully a leader requires psychological and biological strengths, which are called resilience. Although definitions of resilience differ across studies and disciplines, the most common aspects relating to change are the ability to recover; to bounce back; coping and adaptation; willingness and ability to implement change; overcoming adversity; withstand hardship; and strength to confront difficult circumstances.

Purpose of the Study

The purpose of this investigation was to determine relationships among the dimensions of Resilience and individual demographics of high school principals toward strengthening the leadership abilities of the principals. Florida principals are always faced with challenging situations, obstacles, disruption and trauma. Annually, the State is exposed to nature disasters such as hurricanes, tornadoes and floods, which have the potential of destroying houses and school buildings. There are also the influx of retirees with their grandchildren and immigrants whose children have not been taught in the English language. These situations are an additional burden on the educational budget of the state, and consequently principals are compelled to meet these needs with an already shrinking budget.   Conner's (1993) research over the years defined seven general dimension of resilience: Positive (Yourself), Positive (The World), Focused, Flexible (Thoughts), Flexible (Social), Organized, and Proactive. Based on this model, Conner (1993) concluded that resilient people have these dimensions in common enabling them to confront the overwhelming obstacles they are bound to face in life. A second part of the investigation asked high school principals to provide individual demographic information about themselves, such as age, gender, marital status, level of education, teaching experience and administrative experience.

Using the above data for high school principals, the investigation attempted to answer the research question below toward meeting the above stated purpose: Are there significant differences among dimensions of resilience (predictor variable) and the individual demographics (criterion variable: it assesses the effect of the predictor variable) of high school principals? The expectation is that there are significant differences among dimension of resilience and the individual demographics of high school principals to become more effective school leaders.

Delimitations of the Study

The investigation had the following delimitations:

1. The investigation included only high school principals from six public school districts in the state of Florida.

2. The participants (school principals) of the investigation were restricted to public high schools in six public school districts.

3. The investigation included only high school principals as the administrator for schools who catered for grades nine through twelve students.

LITERATURE REVIEW

In the rapidly changing environment of the new millennium, school leaders must have the skills and behaviors to guide the development of their leadership capacity and practices to meet the serious challenges in education. In the literature, one may find numerous concepts and approaches to develop and practice good leadership. Because so many variables of personality and context go into the workings of leadership, it is not surprising that people have observed and studied leadership from many different perspectives. By their behavior, leaders earn trust and inspire loyalty. Schools, certainly as much as any other institution, deserve good leadership.

The review of the literature related to the problem is organized around the topic: Resilience.

Construct of Resilience

The term resiliency, which is derived from the Latin roots meaning, "to jump (or bounce) back," has no universally accepted definition although most definitions used in the literature are very similar. Definitions have evolved as the concept has been examined independently by researchers from a variety of professional disciplines; the disciplines include psychology,

psychiatry, medicine, epidemiology, nursing, social sciences, human development, and change management. Each definition provides a different perspective or emphasis, yet a common sense of resiliency emerges. Based on the research, most fields viewed resiliency as a human capacity, strength, or ability (Conner, 1993; Joseph, 1994; Henderson & Milstein, 1996; Wolin & Wolin, 1993; Flach, 1988; Pianta & Walsh, 1998; Murphy & Moriarty, 1976; Werner & Smith, 2001; Garmez, 1993; Masten, 1989; Rutter, 1987; Wayman, 2002; Hollister- Wagner, Foshee, & Jackson, 2001).

As indicated in the literature above, certain events evoke the need for resilience, such as adversity; stressful experiences; obstacles or setback; defeat; misfortune; trauma; change; disruption; challenging situations; hardship; behavior problems; physical complications; dysfunctional situation; and crisis. Some researchers have indicated that these factors could be generated either internally or externally (e.g., Colgate, 1995). Several studies in the literature indicate a variety of accelerating events: Higgins (1994) interviewed and conducted psychological tests with 40 adults who endured severe abuse and trauma as children; Moskowitz and Krell (1990) examined the survivors of wars and concentration camps; Werner and Smith (2001) monitored the impact of biological and psychological risk factors, stressful life events, and protective factors on the development of men and women; Wolin and Wolin (1993) studied the long-term consequences of having alcoholic parents; Rutter (1987) conducted a 14-year follow-up study of British women who were placed in an institution as a result of being abused or abandoned as small children; and Conner (1993) observed, recorded and analyzed the behavior of thousands of leaders and managers in organizations as they attempted to implement major change.

Although definitions of resilience differ across studies and disciplines, the researchers attempted to identify some basic features of the concept. The most common aspects are the ability to recover; to bounce back; coping and adaptation; willingness and ability to implement change; overcoming adversity; withstand hardship; and strength to confront.

Outcomes depicted in the resilience studies, include high levels of ego development and a higher economic status than their family (Higgins, 1994); self-discipline (Flach, 1988); and survival of those subjected to war and concentration camp trauma (Moskovitz, 1983). Other outcomes are effective and capable leaders (Conner,1993; Henderson & Milstein, 1996); growth and development, health and well-being as an outcome (Jones, 1991).

Conceptualization of the Construct of Resilience

Based on this research, it appears that the concept of resilience is mainly dealing with the application to people. It denotes that individuals have certain qualities to enable them to face difficult or devastating circumstances and overcome them. These individuals tend to be socially skillful, well liked and able to solicit support and help from others when needed (Josef, 1994). They are not invincible or invulnerable; they can be hurt or wounded. Conner (1993) stated that resilient people "have a much greater capacity for bouncing back quickly after a shock," though they "face no less of challenge than others when confronting a crisis." The concept invokes "positive images such as determined, vigorous, hardy, and irrepressible.

Garmezy and Masten (1986) stated that resilience happens when adaptation and competence occur under conditions in which inadequateness is anticipated. These authors further describe resilience with the concept of "stress-resistance," which includes a person's ability to cope with challenges and threats, while maintaining an internal, integrated sense of self (Garmezy & Masten, 1996). Thus conceptualization is further defined as pertaining to

individuals who have the ability to overcome stress (Wayman, 2002). As depicted in the literature review, some of the research studies adequately conceptualized the construct of resilience (e.g., see Werner & Smith, 1982; Rutter, 1987; Flach, 1988; Conner, 1993; Wolin & Wolin, 1993; Bernard, 1993, 1995; Higgins, 1994).

Conner (1993) spent nearly 20 years as a consultant, trainer, and researcher in corporations undergoing organizational change. As result of studying the behavior of people in transition, he and his associates at ODR, Inc. identified characteristics of people who are able to successfully implement major organizational change, including being focused, flexible, positive, organized and proactive. He found that resilient people are more likely to perceive a situation as a challenge and less resilient people are more likely to perceive a situation as a threat.

Based on her review of the literature on resilience, Bonnie Bernard, Prevention Specialist for the Western Center for Drug-Free Schools and Communities at Far West Laboratory for Educational Research and Development, identified the following characteristics of resilient children (Bernard, 1993): social competence, problem-solving, and sense of autonomy. She stated that resilient individuals usually have these attributes in common as indicated in Krovetz (1999).

The research, as depicted from the above studies, suggests that there are qualities in individuals that enable them to face difficulties and overcome them, changed, endured, or resolved in some way. Sagor (1996) concurred by stating that resilience is a set of attributes that provide people with the strength and courage to confront the overwhelming obstacles they are bound to face in life. Thus, for this investigation, resilience conceptualizes the successful adaptation or recovery of an individual despite risk and adversity.

Operationalization of the Construct of Resilience

Resilience is a construct associated with bouncing back from adversity by doing something to change the situation and by managing situations with appropriate skills, behaviors, and qualities so that they no longer seem stressful. Resilient school principals, for example, should be able to flourish under demanding and difficult situations and maintain good and productive human relations at the same time (Abdullah, n.d.).

Drawing from the research on resilience, five characteristics emerge that would help school administrators to move ahead in the face of adversity (Patterson, 2001; Hagevik, 1998; Abdullah, n.d.; Conner,1993; Bernard, 1995; Higgins, 1994; Henderson & Milstein, 1996; Flach, 1988).

1. Proactive: Resilient people take a proactive approach rather than a reactive or passive approach to problem solving.

2. Positive: Resilient people see major changes or disruptions as uncomfortable but opportunities to grow and develop (Hagevik, 1998; Conner, 1993; Abdullah, n.d.; Patterson, 2001).

3. Focused: Resilient people are focused, committed to life, and maintain a clear vision to purposefully achieve their objectives (Conner, 1993; Flach, 1988; Hagevik, 1998.

4. Flexible: Resilient people have the capacity to believe that change is a manageable process. School administrators who have high levels of flexibility have a high tolerance for ambiguity, and need only a short time to recover from adversity. Several researchers have associated one or more of these characteristics with resilience (Hagevik, 1998; Conner, 1993; Patterson, 2001; Wolin & Wolin, 1993; Bernard, 1993; Henderson & Milstein, 1996; Flach, 1988).

5. Organized: Resilient people have the ability to quickly sort information, build structures in the midst of chaos, plan actions for efficient use of resources, and avoid acting on impulses. A number of studies have found one or more of these characteristics associated with resilience (Conner, 1993; Hagevik, 1998; Bernard, 1993).

Thus, based on this literature review, the operationalization of the construct of resilience for this investigation involves a set of characteristics that could provide school administrators with the strength and courage to overcome challenges and threats, recover from disappointments, and enable effective change management despite facing risks and adversaries.

Conner's Model on Resilience

As depicted from various models in the literature, one can conclude that many of these models have dimensions in common that enable resilient people to confront the overwhelming obstacles they are bound to face in life.

Based on my present review of the literature, Conner's model appears to describe the most comprehensive sense of the dimensions of resilience: Positive (The World), Positive (Yourself), Focused, Flexible (Thoughts), Flexible (Social), Organized, and Proactive.

According to Conner (1993), leadership dimensions of administrators include the areas of perception, thinking, and behavior and appear to be related to the concept of resilience and how people deal with changing circumstances and a changing world.

Measuring Resilience

In 1993, Daryl Conner, a psychologist, studied resilience in organizations for over two decades as a consultant, trainer, and researcher in corporations undergoing organizational change. His extensive consulting over the world has provided him a depth of experience with

change. In addition, his literature on Resilience has been cited in numerous dissertations (e.g., Colgate, 1995 and Taylor,1997).

Conner and his associates at ODR developed an instrument, the *Personal Resilience Questionnaire* (PRQ) in 1990. The PRQ contains 70 items that measure the five (seven including sub – characteristics) general characteristics that are related to resilience, namely: (a) Positive: ("The World") and ("Yourself") (b) Focused (c) Flexible: ("Thoughts") and ("Social") (d) Organized (e) Proactive. To date, the instrument has been completed by more than 26,000 people (including employees, managers and leaders) in organizations (ODR, 1996).

The PRQ was selected for this study because the subscales (dimensions) identified in the literature for resilience for school administrators seemed to be a best overall fit to Conner's model (see above discussion). Also, several research investigations by external researchers (e.g., see Colgate, 1995; Taylor, 1997) and ODR were developed to determine the validity and reliability of the instrument.

METHODOLOGY

Purpose of the Investigation

The purpose of this investigation was to determine the relationships among the dimensions of resilience and the individual demographics of high school principals toward strengthening the leadership abilities of school principals. The specific research question that will be answered is:

- Are there significant differences among the dimensions of resilience and the individual demographics of high school principals?

Information derived from this investigation can be utilized to add to the scholarly

literature in the field of school leadership toward strengthening principal's leadership abilities.

Principals used their leadership skills to absorb change while maintaining their productivity as

well as their physical and emotional stability to achieve their objectives (Conner, 1993). The

results of this investigation served as a basis for school principals to assess their leadership

strengths and weaknesses, and used the findings toward the improvement of their leadership

abilities

Research Design

This quantitative investigation employed the survey method as its research design. The

survey was cross-sectional because the data were collected at one point in time.

Creswell (1994) defines a survey design as a "quantitative or numeric description of some

fraction of the population – the sample – through the data collection process of asking questions

of people" (p. 117). According to Babbie (1990), the purpose of survey research is to generalize

from a sample to a population so that inferences can be made about some characteristics,

attitude, or behavior of the population. The survey research approval was elected for this

investigation because it possesses all the qualities that are necessary for scientific research, as

discussed below.

Considering all the factors, it was decided that an on-line survey method would be

administered for this investigation.

Participant Selection

The participants, high school principals, for this study were drawn from all the public

high schools in six school districts in the State of Florida. The districts with the most schools

were selected for this investigation. Furthermore, districts selected can be viewed as reasonably

representative sample because it represents a balance of urban and rural schools in the State of Florida. For this investigation, the researcher selected the purposive sampling method, also referred to as judgment sampling, for selecting the school districts. According to Gay and Airasian (2000) purposive sampling is based on the researcher's experience and knowledge of the group to be sampled. Thus, the sample of school districts selected for this investigation is based on the researcher's information on the classification of urban and rural areas.

According to the United States Census Bureau, an "urban" area is one that has an overall density of at least 500 people per square mile, while rural areas have less than 500 people per square mile. The districts selected for this study, half urban and half rural, are based on this classification – Duval (1,007 per square mile), Hillsborough (951 per square mile), Orange (988 per square mile), Bay(182 per square mile), Volusia(360 per square mile), and Okaloosa (174 per square mile). Based on the Florida Department of Education 2002-2003 data, the schools listed in the 6 districts are Urban: Duval (19 high schools), Hillsborough (15 high schools), and Orange (15 high schools); Rural: Bay (6 high schools), Volusia (9 high schools), and Okaloosa (4 high schools). Only those schools that are designated as high schools were considered as appropriate for the purpose of this investigation.

Based on the number of principals in the 6 districts, it was determined that all of the principals in the 6 districts would be surveyed. These districts included 49 urban high school principals and 19 rural high school principals.

Data Collection Instruments

The data for this investigation were collected using *The Personal Resilience Questionnaire.* A human subject's application was submitted to the Human Subjects Committee, and approval was given for the data collection. The online questionnaire was sent to 68 high

school principals in the 6 school districts in Florida (Duval, Hillsborough, Orange, Bay, Volusia, and Okaloosa).

The first part of the *Personal Resilience Questionnaire (PRQ)* obtained individual demographic information about school principals, such as age, gender, marital status, level of education, teaching experience, and administrative experience. It captured a single response to each of these variables, as below.

1) Age (20 to 30 years, 31 to 40 years, 41 to 50 year, 51years and more).

2) Gender (male or female).

3) Marital status [single, married, other (divorced or widowed)].

4) Level of education (Bachelor, Masters, Specialist, Doctorate).

5) Teaching experience (0 to 2 years, 3 to 5 years, 6 to 8 years, 9 years and more)

6) Administrative experience (0 to 2 years, 3 to 5 years, 6 to 8 years, 9 years and more).

The second part of the *Personal Resilience Questionnaire (PRQ)* (1993) is a copyrighted scale, and was developed by Daryl Conner and his associates at ODR, Inc. in 1990 (Conner, 1993). The PRQ gathered individual information on the resiliency of principals. The instrument was selected because it is a viable and comparative instrument that exists from earlier research. Also, the subscales (characteristics) identified in the literature for resilience for school principals seemed to be a best overall fit to the ODR model. The instrument was used to assess the seven dimensions of resilience: Positive (The World), Positive (Yourself), Focused, Flexible (Thoughts), Flexible (Social), Organized, and Proactive. The 70 questions in the PRQ reflect the resilience dimensions above.

The response choices for the 70 items are based on a six-point Likert scale; they are: strongly disagree, disagree, slightly disagree, slightly agree, agree, and strongly agree. ODR

made a deliberate decision not to offer a neutral response (e.g., don't know, undecided, unsure) in order to elicit an opinion on each item. The decision created the opportunity for a forced decision by some respondents who would otherwise have chosen the neutral response (Judd, Smith, & Kidder, 1991).

Data Collection

Initially, personal contact was made with the 6 superintendents or their representatives in each of the selected school districts. The principals of these school districts were properly informed and ensured about their anonymity and the confidentiality of the data information. An on-line instrument was sent via the internet to each of these potential participating principals, and they were asked to return the completed questionnaire via the internet.

The data of the PRQ were scored by the researcher and ODR in Atlanta. The database was set up to provide anonymity and confidentiality. The individual demographic data of the principals were captured by the researcher used an Excel spread sheet. The researcher carefully entered the item responses of each survey participant. The item responses and totals for each variable were transported into the "Data Editor" of the SPSS. The scores of the PRQ and Individual Demographics were used to do the statistical analyses.

Data Analysis

The data obtained from this investigation were analyzed with the T- test statistics and using the Statistical Package for the Social Sciences (SPSS) computer program.

The T-test was selected to describe the differences between a normally distributed independent (predictor) variable and another independent (predictor) variable. To answer the research question , the T-test was computed to establish whether or not there were differences among group means of the principals' resilience dimensions and the group means of their

individual demographics. If the statistical significance level has been achieved, the researcher rejects the null hypothesis, and accepts the hypothesis that there are differences among the resilience dimensions and the individual demographics of high school principals. The statistical significance level was set at p (probability) < .05. The data used to analyze the research question were obtained from the PRQ.

Reliability and Validity of the Personal Resilience Questionnaire (PRQ)

After two decades of research, recording, observation and analyzing the resilience in organizations, Conner (1993) started to develop a tool to measure the concept of resilience. The items were written to reliably and efficiently illustrate the characteristics; they were designed to measure with minimal overlap between concepts. The questionnaire was also constructed in a way that it captured the span of resilience while minimizing potential sources of partiality. And the wording was written on a seventh grade level. Some of the items (46%) are reverse scored to minimize the possibility of response bias. Careful attention was given to the reliability and validity of the instrument (Conner, 1993).

The validity and social desirability psychometrics of the PRQ were derived from a study on 226 undergraduate students at the Georgia Institute of Technology in 1993. To establish construct validity of the *Personal Resilience Questionnaire* (PRQ), it was determined whether the instrument measured the concepts it was designed to measure. Accordingly, the PRQ measured the seven different constructs of resilience: Positive (The World), Positive (Yourself), Focused, Flexible (Thoughts), Flexible (Social), Organized, and Proactive. By comparing individual scores on the resilience sub-scales to scores on other validated scales that were used to measure the same constructs, Conner confirmed that the Personal Resilience Profile sub-scales

did measure the concepts that they were theoretically designed to measure (ODR, 1996).

By establishing the predictive validity of the PRQ, Conner (1993) wanted to determine whether high scores on the PRQ correspond to high performance of the subjects. Data obtained from 86 employees of a leading financial institution in the midst of a major change; 66 were described as high performers, and the rest were classified as low performers. They compared the scores of these groups on the seven components of resilience, and found that the high performers showed higher scores than the low performers on Positive (The World), Positive (Yourself), Focused, Flexible (Thought), Flexible (Social), Organized, and Proactive. The result suggests that scores on the PRQ can be used to predict job performance in organizations undergoing change, but that relationships may differ across organizations.

Internal consistency reliability for each of the PRQ subscales was computed by using Cronbach's alpha coefficients. Cronbach's alpha coefficient is a mathematical formula that measures the reliability of measurement by estimating the extent to which the measurement provides the same results on repeated trials or it measures how well a set of items or variables 72 (characteristics of resiliency) measures the same underlying construct (resiliency). Cronbach's alpha is a value between 0 and 1. Values near 0 indicate low reliability, while values near 1 indicate high reliability (Crocker & Algina, 1986).The following Cronbach's alpha coefficients were calculated for each sub-scale: Positive (The World) 0.83, Positive (Yourself) 0.81, Focused 0.82, Flexible (Thoughts) 0.71, Flexible (Social) 0.74, Organized 0.68, Proactive 0.65. These figures indicated that the items that make up each scale have a fairly high level of covariance; that is,

people tend to respond similarly to the various questions in each scale. This is an indication that the questions constituting a given sub-scale are all measuring the same concept (ODR, 1996)

The internal consistency reliability for the PRQ, the subscales or characteristics of resiliency that measured the construct of resiliency, showed high alpha values. Thus, the psychometrics of this scale indicated that the PRQ exhibited acceptable validity and reliability.

DATA ANALYSIS AND RESULTS

Participant Response

Table 1 illustrates the distribution of the participants' responses in the investigation. From the total sample of 68 school principals, 28 (41.2%) responded and completed the survey.

The participants were each divided into rural and urban settings based on the school district they represented. The rural school districts were Bay, Volusia and Okaloosa Counties. From the sample of 19 rural school principals, 10 (52.6%) responded and completed the survey.

The urban school districts selected for this study were Duval, Hillsborough and Orange Counties. From the sample of 49 high school principals, 18 (36.7%) responded and completed the survey.

Findings of Individual Demographics Data Collected from the School Principals.

As reported in Table 2, frequencies and percentages of these principals were calculated of the demographic data. From the sample of 28 responding principals, 10 females and 18 males responded and completed the surveys. The participants were asked to list their age; 16 (57.1%) were 51 years and older, 11 (39.3%) were between 41 and 50 years and 1 (3.6%) was between 31 and 40 years. The participants' marital status ranged from 26 married, 1 divorced and 1 single. As for the level of education of responding principals, 19 had master's degrees, 6 doctoral

degrees and 3 specialist degrees. The participants were also asked to indicate the number of years

of teaching experience, which ranged from 23 (82.1%) with 9 years or more years, 4 (14.3%)

between 6 and 8 years, and 1 between 3 and 5 years experience. As for the principals'

administrative experience, 18 (64.3%) had 9 years or more, 7 (25%) had between 6 and 8 years,

and 3 (10.7%) had between 3 and 5 years experience.

Findings of the Research

The T-test was computed to establish whether or not there were differences among the

school principals' resilience dimensions and their individual demographics. Each individual

demographic interval was combined in two levels to justify the categorical variable. The

statistical significant level was set at $p < .05$.

As indicated in the tables below, the researcher found significant differences among the

resilience dimensions of:

• Positive: The World (T value of 2.904, $p = .013$) and Proactive (T value of 2.708, $p = .045$) and

the individual demographic of age (see Table 3a).

This data suggested that principals of different ages had different views about the

resilience dimensions of Positive: The World and Proactive. According to the descriptive data,

the researcher concluded that principals under 50 years of age (mean score of 54.0) are more

likely to apply the Positive: The World resilience dimension than those over 50 years of age

(mean score of 51.38). While principals over 50 years of age (means score of 62.75) are more

likely to apply the resilience dimension of Proactive than those under 50 years of age (mean

score of 61.17), in their leadership approach.

• Focused (T value of 2.712, $p = .043$) and Flexible: Social (T value of 2.323, $p = .049$) and the

individual demographic of gender (see Table 3b).

This data suggested that female principals (mean score of 56.20) are more Focused than male principals (means score 54.22) in their leadership approach. While male principals (mean score 60.78) are more Flexible: Social than female principals (mean score 59.80) in their leadership approach.

• Positive: The World (T value of 2.934, p = .040) and Flexible: Social (T value of 2.411, p = .010) and the individual demographic of level of education (see Table 3c).

The data suggested that principals with master's and bachelor's education levels (mean score of 54.32) were more likely to apply the Positive: The World resilience dimension than principals with specialists and doctoral levels of education (mean score of 48.67). Likewise, principals who have master's and bachelor's education levels (mean score of 61.79) were more likely to apply the Flexible: Social resilience dimension than principals with specialist or doctoral level of education (mean score of 57.56), in their leadership approach.

• Positive: The World (T value of 2.646, p =.012), Focused (T value of 2.814, p = .018) and Flexible: Thoughts (T value of 2.896, p = .006) and the individual demographic of teaching experience (see Table 3d).

The data suggested that principals with 9 or more years of teaching experience were more likely to apply the resilience dimensions of Positive: The World (mean score of 53.57), Focused (means score of 56.0) and Flexible: Thoughts (mean score of 59.91) than principals with [(Positive:TheWorld, mean score of 47.60) (Focused, mean score of 50.0), (Flexible: Thoughts, mean score of 54.40)] with less than 9 years of teaching experience in their leadership approach.

• Focused (T value of 2.078, p =.048) and Proactive (T value of 2.743, p = .033) and the individual demographic of administrative experience of high school principals (see Table 3e).

The data suggested that principals who have between 3 and 8 years of administrative experience (mean score of 58.40) were more Focused in their leadership approach than principals with 9 or more years of administrative experience (mean score of 53.0). Furthermore, principals with 9 or more years of administrative experience (mean score of 63.44) were more Proactive in their leadership approach than principals with less than 9 years of administrative experience (mean score of 59.60).

Table 4 displays all of the significant relationships of the Research Question. The researcher rejected the null hypotheses that there were statistical significant differences among the resilience dimensions of: Positive: The World and Proactive and the individual demographic of age; Focused and Flexible: Social and the individual demographic of gender; Positive: The World and Flexible: Social and the individual demographic of level of education; Positive: The World, Focused and Flexible: Thoughts and the individual demographic of teaching experience; and Focused and Proactive and the individual demographic of administrative experience of high school principals.

CONCLUSION AND RECOMMENDATIONS

Based on the research question and the analysis of data, the following conclusions can be drawn as result of this investigation.

1. Significant differences exist among the resilience dimensions of: Positive:

The World and Proactive and the individual demographic of age (see Table 3a). A Positive: The World principal: a) focuses on the positive view of environments, b) sees the environment as complex and challenging, c) sees opportunities and possibilities, d) is optimistic. An Proactive principal: a) acting decisively in the midst of uncertainty, b) taking risks and endure the

discomfort involved, c) seeking challenges rather than avoid them, d) investing energy rather than withdraw.

The researcher concluded that principals of different ages have different views about the resilience dimensions of Positive: The World and Proactive. According to the descriptive data, the researcher concluded that principals under 50 years of age (mean score of 54.0) are more likely to apply the Positive: The World resilience dimension than those over 50 years of age (mean score of 51.38). While principals over 50 years of age (means score of 62.75) are more likely to apply the resilience dimension of Proactive than those under 50 years of age (mean score of 61.17), in their leadership approach.

2. Significant differences exist among the resilience dimensions of Focused and Flexible: Social and the individual demographic of gender (see Table 3b).

Focused principals are: a) strongly committed to the goals, b) find meaning or purpose, c) have a sense of purpose and priorities, d) have clarity of purpose, e) have a sense of direction in life.

Flexible: Social principals are: a) able to draw on resources of others to supplement their own flexibility, b) recognize interdependency with others, c) able to form and maintain close relationships, d) recognize how others' skills can complement their own.

The researcher concluded that female principals (mean score of 56.20) are more Focused than male principals (means score 54.22) in their leadership approach. While male principals (mean score 60.78) are more Flexible: Social than female principals (mean score 59.80) in their leadership approach.

3. Significant differences exist among the resilience dimensions of Positive: The World and Flexible: Social and the individual demographic of level of education (see Table 3c). The

researcher concluded that principals with master's and bachelor's education levels (mean score of 54.32) are more likely to apply the Positive: The World resilience dimension than principals with specialists and doctoral levels of education (mean score of 48.67). Likewise, principals who have master's and bachelor's education levels (mean score of 61.79) are more likely to apply the Flexible: Social resilience dimension than principals with specialist or doctoral level of education (mean score of 57.56), in their leadership approach.

4. Significant differences exists among the resilience dimensions of Positive: The World, Focused and Flexible: Thoughts and the individual demographic of teaching experience (see Table 3d). Flexible: Thoughts principals:

a) cope with ambiguity comfortably,

b) able and willing to look at situations from multiple points of view and suspend judgment,

c) accept paradoxes and contradictions,

d) are open-minded,

e) creative in finding effective ways to achieve goals.

The researcher concluded that principals with 9 or more years of teaching experience are more likely to apply the resilience dimensions of Positive: The World (mean score of 53.57), Focused (means score of 56.0) and Flexible: Thoughts (mean score of 59.91) than principals with [(Positive:TheWorld, mean score of 47.60)

(Focused, mean score of 50.0), (Flexible: Thoughts, mean score of 54.40)] with less than 9 years of teaching experience in their leadership approach.

(e). Significant differences exist among the resilience dimensions of Focused and Proactive and the individual demographic of administrative experience (see Table 3e) of high school principals.

The researcher concluded that principals who have between 3 and 8 years of administrative experience (mean score of 58.40) are more Focused in their leadership approach than principals with 9 or more years of administrative experience (mean score of 53.0). Furthermore, principals with 9 or more years of administrative experience (mean score of 63.44) are more Proactive in their leadership approach than principals with less than 9 years of administrative experience (mean score of 59.60).

Implications

The study revealed that school leaders must develop or learn the resilient characteristics such as Positive, Proactive, Focused, Organized and Flexible to guide the development of their leadership capacity and practices to meet the serious challenges in education.

Given the increasingly demanding environment, universities that prepare administrators, and school districts that employ school leaders should strive to create support mechanisms designed to increase administrator resiliency. The stimulus of continuous, high quality professional growth may help to increase the resiliency of school leaders. Resiliency among school leaders can be enhanced through the creation of supportive structures and norms within school districts. Attention to team-building, effective coaching and the creation of a culture that challenges, energizes and rewards leaders appear to be helpful in enhancing the resiliency of school leaders. Ongoing professional growth also appears to be a key factor in building resiliency.

Conner (1993) stated that the single most important factor in managing change successfully is the degree to which people demonstrate resilience. He maintained that resilience is the willingness and capacity of a leader to absorb high levels of change while demonstrating an insignificant dysfunctional performance. Thus, the assumption by followers is that resilient

principals are better prepared to protect them and the school from the fast-changing world because they have the capacity to absorb high levels of change. Change is a difficult process but one way or another all schools have to face it at one point. .

Thus, the resilient principal should assist and support his or her faculty, staff, students, parents and the community to challenge the process by creating change to enable the school to be proactive and increase the potential for a successful education system (Lick & Kaufman, 2001). Principals who accept the resilience model reflect greater change adaptability. Resilient principals who manage change successfully not only improve their school's performance but also become more effective leaders. Therefore, principals should be ahead of change and not behind it trying to catch up (Kouzes and Posner, 2002).

Limitations of the study

1. This was the first study conducted on the relationships among the dimensions of resilience and the individual demographics of high school principals. In view of the small sample size, a similar follow-up study could be conducted on more schools and involving more school districts, and more school principals from schools and school districts.

2. The school districts were not randomly selected; therefore the study population may not be fully representative of the population.

3. The unique nature of the State of Florida's socioeconomic, ethnic and diverse culture may limit generalization of the conclusions of this study to other populations. As a result, caution should be taken in applying the investigation's conclusions to the populations of other states and countries.

4. There were limited responses from the schools in the districts because the principals,

assistant principals and teachers are inundated with surveys from other researchers, educational

institutions and the district offices. Additionally, principals have several administrative,

curriculum and extra curricular activities.

5. The research data were collected from a limited pool of schools in 6 school districts, so

the results may not be generalizable but only valid for those districts.

Recommendations for Future Study

The following recommendations are made regarding the value of future research in this

area.

1. More research is needed on resiliency in education because it is a critical component to

successfully managing change. Resilient people are not only able to "bounce back" from change,

but also come through even stronger and more capable than before; they are less likely to

become victims of change. Resilient people more often accomplish their goals timely while not

losing quality. In the face of uncertainty, particularly during budget cuts and restructuring, they

tend to achieve their objectives and maintain their physical and emotional health.

2. The study can be modified to allow for a combination of both quantitative and qualitative

approaches. The data could be collected through surveys, interviews, observations and focus

groups, and the results obtained could help the researcher to answer several research questions

such as, the impact resilient principals have on school performance or the quality of the

judgments a resilient principal makes while addressing difficult issues.

3. A similar study could be done by determining the relationships among the dimensions of

resilience, leadership practices, and individual demographics of elementary school principals.

4. School districts should more often engage principals in related research projects to enhance their professional development skills and strengthen their skills in effectively serving as school leaders.

5. School districts should consider the results of this study and conduct similar research on resiliency development to engage principals in effective organizational functioning to enhance their leadership abilities.

6. This study should be replicated to include superintendents or managers at the district offices. This would enable them to strengthen their leadership to improve public schools.

7. Finally, in view of the small body of literature available on the resiliency of adults in education, more research studies could be done in educational settings because successful change management is not merely an opportunity to improve organizational performance, but it also reflects a responsibility to apply what a person knows about his or her particular field.

REFERENCES

Abdullah (n.d.). *Enhancing educators' personal resilience: A way towards education excellence.* Unpublished manuscript, University of Malaya, Faculty of Education. Retrieved on March 8, 2002 from http://www.planetklik.com.my/SG/semp13.htm.

Ahn, R.L. (1991). *Development and validation of the Washington Resilience Scale.* Unpublished doctoral dissertation, University of Washington..

Babbie, E.R. (1990). *Survey research methods.*(2nd ed.). Belmont, CA: Wadsworth Publishing Company.

Bennett, E.B., Novotny, J.A., Green, K.E, & Kluever, R.C.(1998). *Confirmatory factor analysis of the Resiliency scale.* Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.

Bernard, B. (1993). *Fostering resiliency in kids.* Educational Leadership, 44-48.

Biscoe, B., & Harris, B. (1994). *Evaluation reports. 1994-1998, new destiny, women and children's residential treatment program.* Oklahoma City: Eagle Ridge Institute.

Block, J.H. & Block, J. (1980). *The role of ego-control and ego-resilience in the organization of behavior. In W.A. Collins (Ed.).*Development of cognition, affect, and social relations: Minnesota symposia of child psychology *(pp 39-101). Hillsdale, NJ: Lawrence Erlbaum Associates.*

Colgate, M.A. (1995). A secondary analysis assessing the Personal Resilience Questionnaire exploring the relationship between resilience and exercise. *Unpublished doctoral dissertation, University of Maryland, College Park.*

Conner, D. R.(1993). *Managing at the speed of change: How resilient managers succeed and prosper where others fail.* New York: Villard Books.

Creswell, J.W. (1994). *Research design.* Thousand Oaks, California: SAGE Publications.

Crocker, L. & Algina, J.(1986). *Introduction to classical and modern test theory.* New York: Holt, Rinehart and Winston.

Cunningham, W.G., & Cordeiro, P.A. (2000). *Educational administration. A problem – based approach.* Boston: Allyn and Bacon.

Demos, E.V. (1989). *Resiliency in infancy. In T.F. Dugan & R.Coles (Eds.).* The child in our times: Studies in the development of resiliency *(pp. 3-22)*. *New York: Brunner/Mazel, Inc.* 144

Dugan, T. F. & Coles, R.(Ed.) (1989)*. The child in our times. Studies in the development of resiliency.* New York: Brunner/Mazel, Inc.

Flach F. (1988). *Resilience: Discovering a new strength at times of stress.* New York: Fawcett Columbine.

Folkman, S. & Lazarus, R.S. (1985). If it changes it must be a process: Study of emotion and coping during three stages of college examination. *Journal of Personality and Social Psychology, 54,* 466-475.

Folkman. S & Lazarus, R.S. (1988). Coping as a mediator of emotion. *Journal of Personality and Social Psychology*, 54, 466-475.

Follet, M.P.(1981). The essentials of leadership. *In The Great Writings of Management and Organizational Behavior (2nd), edited by Louis E. Boone and Donald D. Bowen (1987).* New York: McGraw – Hill, Inc., p. 49-59.

Garmezy, N. (1974). Children at risk: The research for the antecedents of schizophrenia. Part II: Ongoing research programs, issues, and intervention. *Schizophrenia Bulletin, 1*, 9, 55- 25.

Garmezy, N. (1993). *Children in poverty: Resilience despite risk*. Psychiatry, 56, *127-136.*

Garmezy, N. & Masten, A.S.(1986). Stress, competence, and resilience: Common frontiers for
therapist and psychopathologist. *Behavior Therapy, 17*, 500 - 521.

Gay, L.R., & Airasian, P.(2000).*Educational research* (6th ed.). Columbus, Ohio: Prentice –Hall.

Hagevik, S. (1998). Resilience required. *Journal of Environmental Health,. 60, 10,* 37.

Hartford, S.C. (2000). Employ perceptions of leader credibility and its relationship to employee
communication satisfaction and Health Care Organization. *Doctoral dissertation,
Southern Illinois University at Carbondale*.

Henderson, N., & Milstein, M.M. (1996). *Resiliency in schools: Making it happens for students
and educators.* Thousand Oaks, CA: Corwin Press.

Higgins, G.O. (1994)*. Resilient adults: Overcoming a cruel past.* San Francisco: Jossey – Bass.
Inc.

Hollister-Wagner, G.H., Foshee, A.V. & Jackson, C. (2001). Adoloscent aggression: models of
resiliency. *Journal of Applied Social Psychology, 31*, *3*, 445-466.

Jones, P.S (1991). *Adaptability. a personal resource for health. Scholarly inquiry for nursing
practice.* An International Journal, 5, *95-108.*

Joseph, J.M. (1994). *The resilient child: Preparing today's youth for tomorrow's world.* New
York: Plenum Press.

Judd, C.M., Smith, E.R., & Kidder, L.H. (1991). *Research methods in social relations.* Chicago,
IL: Holt, Rinehart and Winston. 146

Kouzes, J.M., & Posner, B.J. (2002). *Leadership challenge (3rd Ed.).* San Francisco: Jossey-
Bass.

Krovetz, M.L. (1999). Fostering resiliency. *Thrust for educational leadership, 28,*5. Bloomington, Indiana: Phi Delta Kappa Educational Foundation.

Lick, D.W., & Kaufman, R. (Winter 2001/2001). Change Creation: The rest of the planning story. *Planning in Higher Education*, 29, 2, p. 30.

Masten, A.S. (1989). *Resilience in development: Implications of the study of successful adaptation for developmental psychopathology. In D.Cicchetti (Ed.).* The emergence of a discipline: Rochester symposium on developmental psychopathology *(pp. 153-183). Hillsdale, NJ.: Lawrence Erlbaum Associates.*

Moos, R.H., & Billings, A.G. (1994). *Conceptualizating and measuring coping resources and processes. In L.Goldberg & S. Breznitz (Eds.).* Handbook of stress: The theoretical and clinical aspects *(pp. 212-2, 30). New York: Free Press.* 147

Murphy, L.R., & Moriarty, A. (1976). *Vulnerability, coping and growth from infancy to adolescence.* New Haven: Yale University Press.

Moskowitz (1983). *Love despite hate: Child survivors of the holocaust and their adult* lives. *New York: Schocken Books.*

Moskowitz, S., & Krell, R. (1990). Child survivors of the holocaust: Psychological adaptations to survival. *Israel Journal of Psychiatry and Related Sciences, 27*, 81- 91.

Murphy, L.R., & Moriarty, A. (1976). *Vulnerability, coping and growth from infancy to adolescence.* New Haven: Yale University Press.

ODR. Inc., (1994a). The personal resilience profile handbook. In M.A. Colgatge. *A secondary analysis assessing the Personal Resilience Questionnaire exploring the relationship between resilience and exercise*. Unpublished doctoral Dissertation, University of Maryland, College Park.

ODR. Inc., (1996). *Section(IV) Technical Information*. Atlanta: Author.

ODR. Inc., (2001). ODR Personal resilience profile feedback. Atlanta: Author.

Osburn, F.W. (1993). Principal perceptions of rewards and organizational characteristics as incentives to assume leadership in school improvement. Doctoral dissertation, Florida State University, 1993).*Dissertation Abstracts Interntional, 54, 02A.*

Patterson, J. (2001). Resiliency in the face of adversity. *The School Administrator. Available from the American Association of School Administrators, Virginia. Retrieved from Http://www.aasa.org*

Peacock, E.J., & Wong, P.TP. (1990). The stressful appraisal measure: A multidimensional approach to cognitive appraisal. *Stress Medicine, 6*, 227-236.

Pianta, R.C. & Walsh, D.J. (1998). Applying the construct of resilience in schools: cautions from a developmental systems perspective. *The School Psychology Review, 27, 3,* 407-417.

Rotter, J.B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs, 80*, 1-28.

Rutter, M.(1987). *Psychosocial resilience and protective mechanisms*. American Journal of Orthopsychiatry, 57*, 316-331*.

Sagor, R. (1996). Building resiliency in students. *Educational Leadership, 54,* 38-43.

Wang, C.W. & Gordon, E.W.(Ed.) (1994). *Educational resilience in Inner City America: Challenges and prospects.* New Jersey: Lawrence Erlbaum Associates, Inc.

Wayman, J.C. (2002). The utility of educational resilience for studying degree attainment in school dropouts. *The Journal of Educational Research, 95, 3,*167-178..

Werner, E.E. & Smith, R.S. (2001). *Journeys from childhood to midlife: Risk resilience, and recovery.* New York: Cornell University Press.

Whitake, T., & Turner, E. (2000). What is your priority? *Bulletin, 84, 16.*

Wolin, S.J. & Wolin, S. (1993). *The Resilient Self: How survivors of troubled families rise above*

    adversity. New York: Villard Books

Wright, N.D. (2002). *From risk to resiliency: The role of Law-Related Education.*

*Retrieved from Http://www.civiced.org/normarr.htm*150.

Table 1

Summary of Surveys Mailed, Number Responded and Percentage of Responses.

Participants	Number mailed	Number responded	Percentage of Responses
Principals	**68**	**28**	**41.2**
Urban	49	18	36.7
Rural	19	10	52.6

Table 2

Individual Demographic Differences of High School Principals. (n = 28)

Variable	Frequency	Percentage
Age	16 (51 years or more)	57.1
	11 (between 41 and 50)	39.3
	1 (between 31 and 40)	3.6
Gender	10 Females	35.7
	18 Males	64.3
Marital status	26 Married	92.8
	1 Divorced	3.6
	1 Single	3.6
Level of Education	19 Master degrees	67.9
	6 Doctoral degrees	21.4
	3 specialist degrees	10.7
Teaching Experience	23 (9 years or more)	82.1
	4 (between 6 and 8 yrs)	14.3
	1 (between 3 and 5 yrs)	3.6
Administrative Experience	18 (9 years or more)	64.3
	7 (between 6 and 8 yrs)	25
	3 (between 3 and 5 yrs)	10.7

Table 3a
Independent Sample T-test Between Resilience Dimensions and the Individual Demographic of Age of High School Principals.

Resilience Dimensions	T	Df	Sig.(2-tailed)
Positive: The World	2.904	26	0.013*
Positive: Youself	0.382	26	0.705
Focused:	0.153	26	0.879
Flexible: Thoughts	0.052	26	0.959
Flexible: Social	0.241	26	0.811
Organized	0.122	26	0.904
Proactive	-2.708	26	0.045

*$p < .05$

Table 3b
*Independent Sample T-test Between Resilience and the
Individual Demographic of Gender of High School Principals*

Resilience Dimensions	T	Df	Sig. (2-tailed)
Positive: The World	-1.320	26	0.198
Positive: Yourself	0.627	26	0.536
Focused	2.712	26	0.043*
Flexible: Thoughts	-0.459	26	0.650
Flexible: Social	-2.323	26	0.049*
Organized	-0.140	26	0.889
Proactive	-0.722	26	0.477

*p < .05

Table 3c
*Independent Sample T-test Between Resilience and the Individual Demographic of Education
level of High School Principals.*

Resilience Dimensions	T	Df	Sig. (2 tailed)
Positive: The World	-2.934	26	0.040*
Positive: Yourself	-0.263	26	0.795
Focused	-0.134	26	0.39
Flexible: Thoughts	0.106	26	0.917
Flexible: Social	-2.411	26	0.010*
Organized	-1.058	26	0.300
Proactive	0.230	26	0.820

* p < .05

Table 3d
*Independent Sample T-test Between the Resilience and the Individual Demographic of Teaching
Experience of High School Principals.*

Resilience Dimensions	T	Df	Sig. (2-tailed)
Positive: The World	-2.646	26	0.012*
Positive: Yourself	-0.721	26	0.477
Focused	2.814	26	0.018
Flexible: Thoughts	-2.896	26	0.006*
Flexible: Social	-0.137	26	0.892
Organized	0.035	26	0.972
Proactive	-1.054	26	0.302

*p< .05

Table 3e
Independent Sample T-test Between Resilience and the
Individual Demographic of Administrative Experience of High School Principals.

Resilience Dimensions	T	Df	Sig. (2-tailed)
Positive: The World	0.670	26	0.509
Positive: Yourself	-0.260	26	0.797
Focused	2.078	26	0.048*
Flexible: Thoughts	0.423	26	0.676
Flexible: Social	0.816	26	0.422
Organized	-0.436	26	0.666
Proactive	-2.743	26	0.033*

*p<.05

Table 4
Significant Differences Matrix of RQ.Age, Gender, Education, Teaching Exp, Admin. Exp.

Resilience Dimensions	Age	Gender	Education	Teaching.Exp.	Admin.Exp.
Positive: The World	X		X	X	
Positive: Yourself					
Focused		X		X	X
Flexible: Thoughts		X		X	
Flexible: Social			X		
Organized					
Proactive	X				X

X indicates significant differences