DON'T TELL ME WHAT TO DO! THE ROLE OF PERCEIVED CONTROL IN CHILDREN'S LIFE SATISFACTION

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By
John M. Gruenewald

Thesis Committee

Michael Omizo, Chairperson
Douglas C. Smith
Beth Pateman

Abstract

Prior research has asserted that relatedness, connectedness, and autonomy are directly related to a person's overall life satisfaction. This notion has been examined for various adult groups. However, there has not been any significant research to examine this construct in relation to school-aged children. Furthermore, prior research has look at how this notion of autonomy is related to life satisfaction but no statistically pertinent research has investigated how impact this construct is on overall life satisfaction for students. This research investigated the effect of perceived control (feelings of autonomy) has on a student's overall life satisfaction. Previous research has looked at certain demographic variables impact on perceived control with only minor positive outcomes. This research examined the relationship between three demographic variables (ethnicity, gender, and age) have on reports of control.

Results indicated that there is a relationship between student perceptions of control and overall student life satisfaction. Students reported high levels of satisfaction when they viewed themselves as having a sense of control when at school. Furthermore, there appears to be a relationship among a person's cultural identity and his/her age and perceptions of control. No interaction between gender and perceived control was reported in this study. When combined, age and gender appear to have an influence on a person's reports of control. Finally, a three-way interaction between cultural identity, age, and gender was seen on reports of control. *Conclusions* drawn from this study are that individuals who report high senses of control also report higher levels of happiness or life satisfaction. Demographic variables can then influence reports of a sense of control in variations depending on which variables are looked at in connection to one another.

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INTRODUCTION AND REVIEW OF LITERATURE

Introduction

The ultimate aspiration of every individual is to be fully satisfied with life. Human beings have an innate need essential to finding satisfaction in everything that they do. Everything from work to entertainment is based on an individual's need to find meaning in the events that allow them to fulfill that innate desire. This concept is related to the recent investigation into positive psychology (Seligman, & Csikszenmihalyi, 2000). It has only been over the last decade or so that psychological research has investigated the factors relating to the development of positive behavior and cognitive processes. Until recently, the vast majority of the research dealt with the pathological side of psychology. Prior research was based on finding causal factors and implications of psychopathological disorders and other disparities in positive interaction with society.

Today, a quantified body of empirical evidence suggests that factors such as motivation (Deci, Eghrari, Patrick, & Leone, 1994; Larsen, 2000; Ryan & Deci, 2000; Waschull & Kernis 1996), self-concept (Cicchetti, 1991; Terry, & Huebner, 1994), empowerment (Cowen, 1991; Cowen, 1994), and engagement (Skinner, Wellborn, & Connell, 1990) result from people's satisfaction with life. This satisfaction with life is important when considering the children of today. Motivating, building a higher self-concept, empowering, and engaging children could produce the outcome of life satisfaction.

The development of life satisfaction in school-aged children can have long-term effects on their lives. Children will find personal meaning in education and academics if

they are motivated to learn, have a high self-concept, are empowered with personal convictions, and they are engaged in meaningful activities. According to Ryan and Connell (1989), students take responsibility and exhibit more interest in activities in which they find personal meaning. Furthermore, perceived control has been shown to develop a higher sense of this personal meaning and satisfaction (Skinner, Wellborn, & Connell, 1990).

Prior research has examined factors related to the development of this satisfaction with life. According to Deci and Ryan (1985; 1991), outcomes of satisfaction are based on the intrinsic need of three particular processes. Ryan and Deci (2000) recently asserted that there is a mounting body of empirical research that supports an individual's need for these three processes: competence, relatedness, and autonomy. They believe that these three needs are "essential for facilitating optimal functioning of the natural propensities for growth and integration, as well as for constructive social development and personal well-being" (p. 68). It is obvious that these three factors are important in overall life satisfaction since well-being and life satisfaction have been used interchangeably in various research reports.

In another article, Kowal and Fortier (1999) define these terms respectively. First, competence is an individual desire to interact proficiently or effectively with their environment. Second, relatedness is an individual's desire to feel connected to others and experience a sense of belonging in specific social contexts. Finally, autonomy is the need for people to feel that they are the sole proprietors of their actions, and this encompasses the idea of choice. Hence, autonomy is the idea that people are in control of their own decisions (i.e., they have an intrinsic perception of control).

The role of perceived control in people's overall satisfaction is obvious. Throughout history, wars, revolutions, and personal conflicts have been fought to sustain people's control of their lives. This control is an innate need of every individual and they will do anything to protect it. By having a sense of control, people feel as if they are competent and connected to the events and tasks they are involved in. This demonstrates the idea that having a sense of control is not just a component of satisfaction, but it is also related to building the other two factors related to satisfaction.

Brigham (1979) defined this need for choice as, "the opportunity to make an uncoerced selection from two or more alternative events, consequences, or responses" (p. 132). This need for making uncoerced decisions is especially true in regards to a student's connection with their education and life as a whole. Students who believe they have control of educational pursuits are more likely to have the fundamental goal of intrinsic motivation, a higher sense of self, feel empowered to take responsibility for their actions, and be engaged in the activities they participate in. The successful acquisition of choice leads to the development of a sense of personal satisfaction with life and school satisfaction specifically.

Prior research has shown that a student's belief that he or she can succeed is related to their internal and personal actions as opposed to external factors (Seligman, 1975). That is, students feel successful when they are in control of their situation. This control then is directly related to outcomes of education and personal involvement in that education. Therefore, it is this researcher's belief that students will excel in education and find more involvement within an educational context if they are given choice in educational goals and curriculum. Support for this assertion comes from recent evidence

suggesting that perceived control is related to the development of motivation (Nicholls, 1984; Ryan, & Deci, 2000; Yamauchi, & Tanaka, 1998), self-concept (Lent, Brown, & Larkin, 1984), empowerment (Fredrickson, 2001), and engagement (Skinner, Wellborn, & Connell, 1990). Other research has shown that grades and accomplishment in school are also directly related to control (Taylor, Adelman, Nelson, Smith, & Phares, 1989; Weiner, 1979). Incidentally, more research shows that students believing they possess control in school score better on intelligence tests and receive higher grades in school than do their counterparts (Findley & Cooper, 1983; Stipek & Weisz, 1981). Additionally, a child's overall satisfaction at school has a direct relationship to their locus of control (Huebner, Ash, & Laughlin, 2001).

Statement of the Problem

There is a small body of research looking at the association of perceived control to life satisfaction. Previous research asserted that relatedness, competence, and autonomy are directly related to the development of overall life satisfaction. Only a few of these investigations examined this construct in terms of school-aged children. This makes it obvious that the next step in investigation is to collect data on the relationship between students' perception of control and their overall life satisfaction. Therefore, this paper investigated students' perception of control in the school and home environments. This examination of perceived control in their environments was correlated in relation to children's satisfaction with their lives.

Purpose of the Study

The purpose of this study was to investigate the relationship of perceived control and student life satisfaction. This research examined differences in development, cultural and

gender germane to the desire for control. A general linear model analysis of variance (ANOVA) examined these variables in relation to perceived control. This can provide some insight into possibilities about how certain individuals vary on life satisfaction and how it relates to reported perceptions of control. Results of these data will assist in providing counselors, teachers, and other educator's effective and meaningful information, curriculum, and classroom environments facilitating success among school-aged children. This information can be used to determine when developmentally children begin to desire more control, if certain cultures value the concept of control more than others, and how gender differences are important in the perception of control. Moreover, this research can also help find the relationship between perceived control and student's satisfaction at school particularly.

Major Research Question

What is the relationship between student perceived control and student life satisfaction?

Minor Research Questions

1. How does perceived control vary as a function of gender?
2. How does perceived control vary as a function of culture?
3. How does perceived control vary as a function of age?

Major Hypothesis

The hypothesis of this research was based solely on the question of what makes people satisfied with life and the role of perceived control in the development of this satisfaction. Hence, this hypothesis is that there is a positive correlation between perceived control and overall life satisfaction among students. This belief relates to Self

Determination Theories (Deci & Ryan, 1985) notions that autonomy, relatedness, and competence are important in the development of personal meaning and motivation to accomplish tasks for individual reasons.

Minor Hypotheses

Additional factors related to the need for perceived control are likely related to life satisfaction. It appears that perceived control is important for everyone. But this could vary among demographic variables. This research investigated the direct relationship for three particular groups. First, it is predicted that the desire for control in relation to life satisfaction will change along a developmental perspective. That is, younger children will not covet the need for control as much as adolescence will. Second, it predicted that the perception of control would differ between genders. This is to examine contradictions of previous research. This hypothesis was that boys report more control in school and home environments than girls. Finally, cultural factors are also related to perceived control. It was expected that different cultures, in developing overall life satisfaction, would conceptualize this perception of control differently than other cultures.

Significance of the Problem

This concept of perceived control and its relationship to life satisfaction is important to study in children because it will encourage educator's to develop material and classroom environments that facilitate meaning to each individual student. Furthermore, developing an understanding of the role perceived control plays in enhancing children's life satisfaction can create an understanding about why certain individuals do not succeed in school and others do. Life satisfaction is a positive outcome that every educator should look for. It should not be an educator's motivation to pump out robots that can recite

literature and input and output numbers. Children should come away from their school years with a desire to learn and become productive members of society. They should find meaning in their education. This is a result of having their physiological and psychological needs being met and challenged in the school context. This can be directly related to life satisfaction and subjective well-being.

Well-being is a belief that individual's basic physiological and psychological needs are being met (Hull, 1943). Whereas, if these needs are not met, an individual will not be satisfied with life and this, in turn, can contribute to pathology (Ryan & Deci, 2000). Supporting personal growth within students can only advance his or her sense of self. Effectively developing that satisfaction with oneself is an important responsibility facing counselors, teachers, and all other educators. If an educator prompts a student to make happy and personally healthy decisions, those students will be more likely to get personally involved and find meaning in their education. Without a sense of involvement and meaning in school, students will become disinterested in their education. Hence, disinterest would likely result in becoming disconnected at school and possibly in life as a whole.

Student happiness is an optimal outcome in education. At the present time, the majority of students finish their education without a sense of accomplishment or gratification. Without finding meaning in required activities, people will get a discerned feeling that education is irrelevant to them and there is no value in pursuing their interests. This is because they are not satisfied with what they have been doing in school. This can be evident at any point across the educational continuum from elementary school to the post-baccalaureate level. A student's perception of control can directly

impede or enhance of all aspects of any educational setting (Schonwetter, 1993). Becoming aware of this problem will benefit teachers, counselors and other educators in producing the level of success in students that is desired.

Presently, the majority of educators impose rigid and predetermined guidelines on a student's education. These preimposed curricula can only thwart any attempt by a student to display their abilities and the achievement of these abilities. According to Nicholls (1984), tasks should be selected based on an individual's expectation of displaying high ability and avoiding demonstration of low ability. This goes along with the notion that people want to demonstrate their talents and strengths.

Current Literature Relevant to Research Question and Hypotheses

Recent research on the concept of life satisfaction has been a focus of many positive psychologists. A body of research has been established relating to why people are happy and what makes them happy. This paper will further the research related to criteria related to developing overall satisfaction with life. A review of previous research will focus on the areas of self-determination theory, overall or global satisfaction in children, a process model of perceived control, and the relationship of perceived control to the school environment and achievement.

Journals and books reviewed included: *Intrinsic Motivation and Self-Determination in Human Behavior, The Journal of Social Psychology, The Journal of School Psychology, The American Psychologist, School Psychology Review, The Journal of Educational and Psychological Consultation, Social Indicators Research, The American Journal of Psychology, Journal of Educational Psychology, Choice and Perceived Control, Psychological Review, Subjective well-being: An interdisciplinary perspective,*

and *The Journal of Genetic Psychology.* Articles that this paper reviewed related to life satisfaction were: Motivational determinants of flow: contributions of self-determination theory (Kowal, & Fortier, 1999), and Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being (Ryan, & Deci, 2000). Facilitating internalization: The self-determination theory perspective (Deci, Eghrari, Patrick, & Leone, 1994), The relationship between self-concept and life satisfaction (Terry, & Huebner, 1994), Adolescents' perceived quality of life: An exploratory investigation (Dew, & Huebner, 1994), The analysis and measurement of happiness as a sense of well-being (Kammann, Farry, & Herbison, 1984), The enhancement of psychological wellness: Challenges and opportunities (Cowen, 1994), Why are some people happier than others?: The role of cognitive and motivational processes in well-being (Lyubomirsky, 2001), The situational and personal correlates of happiness: a cross-national comparison (Csikszentmihalyi & Wong 1991). This paper reviewed articles related to perceived control and the school setting: Mental Health in Schools (Adelman & Taylor, 1998), Toward a Scale-up Model for Replicating New Approaches to Schooling (Adelman & Taylor, 1997), Life Experiences, Locus of Control, and School Satisfaction in Adolescence (Huebner, Ash, & Laughlin, 2001), What it takes to do well in school and whether I've got it: A process model of perceived control and children's engagement and achievement in school (Skinner, Wellborn, & Connell, 1990), Perceptions of control at school among students in special education programs (Taylor, Adelman, Nelson, Smith, & Phares, 1989), Effects of music, self-efficacy expectations on reactions to failure and perceived loss of controllability (Perrillo, 1978), Effects of reduction in the amount of choice and the perception of control on learning (Savage, Perlmuter, & Monty, 1979),

Some effects of choice on academic performance (Brigham, 1979), Family background, sociometric peer nominations, and perceived control as predictors of academic achievement (Hortacsu & Üner, 1994).

Historical Background

Research in the area of positive psychology is relatively new. Specifically, since the late 80s and early 90s new theories and perspectives have been developed to explain human behavior from a positive affect approach. This means that individuals are being examined for their positive feelings (i.e., happiness and satisfaction) versus the prior tactic of looking at their negative feelings (i.e., anger, depression, and fear).

Self-determination theory is one of the new bases for examining positive affect. Furthermore, investigation into specific constructs related to the development of positive behaviors has investigated numerous factors eliciting these positive reactions. To date, investigation has focused centrally on human motivation, self-concept and empowerment and their relationship to fulfilling personal needs. It is appropriate to now investigate further into understanding the comprehensive function that perceived control plays in the developments of these important factors related to a child's satisfaction with life.

Self-Determination Theory

Self-determination theory (SDT) centers on the postulate that individuals are motivated to do things based on the way they regulate the importance of activities (Deci & Ryan, 1985). This theory stresses the importance of individual's attainment of three basic needs. The first of the three needs is relatedness. Relatedness is the desire to feel connected to peers and feel a sense of belonging in a social structure. The second need is competence. Competence in SDT is the notion that an individual's belief in their

capabilities and how these capabilities relate to a specific task. The final need humans have according to SDT is autonomy. Autonomy is people's need to feel they are in control of a situation and they are personally responsible for their actions.

SDT focuses on the outcomes fulfilled by these three needs. If an individual fulfills these needs it will result in the development of one of two types of self-determined motivation (intrinsic motivation and self-determined extrinsic motivation). Intrinsic motivation is participating in an activity to receive personal satisfaction and just for the sake of doing the activity. Self-determined extrinsic motivation is engaging in an activity out of personal choice. According to this theory, only participating in an activity by his or her own decision results in a personal satisfaction of that individual. Individuals will loose interest and not find meaning or gain any type of personal gratification if they participate in an activity as a requirement or obligation. This is important when it comes to successful acquisition of knowledge or having total involvement in an activity. This theory is the base for understanding flow states (Kowal & Fortier, 1999) or overall satisfaction individuals feel in their lives.

Kowal and Fortier (1999) looked at these three components of SDT. They believed that these resulting motivational factors were positively related to flow. Flow is the theoretical perspective developed by Csikszentmihalyi, Kowal and Fortier stated that flow was "a highly enjoyable psychological state that refers to the 'holistic sensation people feel when they act with total involvement (in an activity)'" (p. 356). They assert that individuals become completely immersed in an activity when they are motivated by individual satisfaction for participating in the activity.

Results of their investigation revealed that self-determined forms of motivation resulted in individuals becoming more involved and finding personal satisfaction in engaging in these events. These findings supported prior research that specific forms of motivation were also linked to desired outcomes in academic areas (Fortier, Vallerand, & Guay, 1995). According to their findings, individuals who have control of their situation are developing a better fulfillment of their psychological needs. This, in turn, results in a sense of overall life satisfaction.

Ryan and Deci (2000) discussed SDT in regards to well-being. In their article the authors claim that the development of these specific psychological needs will facilitate learning. The article further states that teachers who support autonomy foster intrinsic motivation in their students. They believe that individuals develop more interest, find more enjoyment, develop an inherent need to accomplish the task, and having a higher sense of overall satisfaction. The development of these outcomes would further play a role in an educational setting. People who have interest, want to accomplish a task, and are satisfied, will be more involved in school.

Ryan and Deci quote many sources of information related to positive outcomes in education. Findings cited in their article show that more autonomous extrinsic motivation and intrinsic motivation are associated with more engagement, better performance in the classroom, lower dropout rates, higher quality learning, and higher teacher ratings. They go on to state these forms of internalization will produce higher levels of satisfaction among students.

Deci also worked with other colleges in facilitating this internalization of motivation based on SDT (Deci, Eghrari, Patrick, & Leone, 1994). These authors discuss the

differences between introjection and integration as two types of internalization of extrinsic stimulus. The authors describe introjection as "partial or suboptimal internalization resulting in internally controlling regulation" (p.120). Integration is defined as "optimal internalization resulting in self-determined behavior" (p.120). The authors assert that with introjection a person uses external stimulus resulting in excess stress and anxiety. When an individual integrates the value of an activity he or she will accept full responsibility for the result of participating in the action.

Results of their research reveals that conveying choice in individuals promotes internalization of information and integration in context supports the fostering of self-determination. If a situation was reported to be supportive to this self-determination then the result is integration of specific values or behaviors. Control was reported as one of the primary contexts promoting this integration along with meaningful rationale and acknowledgement of feelings. These various investigations of SDT have all supported its use in understanding life satisfaction of students. Self-determination theory is a valuable and important theory in understanding why and what makes people happy and satisfied with life.

Overall or Global Life Satisfaction

Life satisfaction "refers to cognitive judgments of one's life as whole" (Terry & Huebner, 1994, p. 39). In terms of overall or global life satisfaction this refers to a quality of life that individuals set for themselves. Some researchers have argued that it is important to look at specific factors related to life satisfaction instead of looking at this construct as a whole (Ryff, 1989). Terry and Huebner (1994) investigated the role that self-concept plays in global life satisfaction of children. Their findings suggest that self-

concept is an integral part of developing a global perspective on life satisfaction. This means that children can determine the difference between self-concept and other factors that lead to global life satisfaction. It is important to note the significance of these findings.

By developing an understanding of what constitutes a self-concept, children are more capable of understanding the difference between what they are about and what others perceive them to be. Building this comprehension not only fosters a sense of self, it allows the child to make cognizant distinctions between the factors that are related to global life satisfaction and factors that are inherently detrimental to the development of global life satisfaction.

Once again, Huebner was involved in looking at the role of self-concept in overall life satisfaction (Dew & Huebner, 1994). In this study the researchers once again found that students can differentiate between self-concept and global life satisfaction. It is important to stress this distinction because it is this papers hypothesis that a high level of self-concept is necessary in building global life satisfaction. These researchers go on to postulate that a high degree of life satisfaction is transversely related to being in control of their lives. This is more evidence that self-concept, and the development thereof, is brought about by an individuals perception of control.

According to SDT, motivation is another important area that must be researched in order to better understand the notion of overall life satisfaction in children and adults. The taxonomy of this paper emphasizes the role that motivation plays in the development of overall life satisfaction. Kammann et al. (1984) reviewed various measurements of happiness and a sense of well-being. Since this notion of well-being has already been

recognized as integral in the development of global life satisfaction, it is relevant to the present research. The findings of their research indicated that positive affect is instrumental in developing that sense of well-being.

Csikszentmihalyi and Wong (1991) looked at this notion from a happiness perspective. Although this researcher believes that happiness is one factor mitigating the development of overall life satisfaction, the aforementioned researchers believed it to be relate to many dimensions of human experience. Their evidence shows happiness is strongly related to many affect and motivation variables. This is further evidence that happiness is directly related to an individual increasing their own motivation to accomplish tasks at school. This is a detrimental factor in a cognitive perception of control. The authors believed that people become happy by involving themselves in certain activities and letting them have a say in what it is they are involved in. This is further evidence supporting the need for autonomy or control for a global satisfaction among children.

Perceived Control

Adelman and Taylor (1997) contend that present school system practices need to broaden their approaches to education. They assert that current educational perspectives limit individual outcomes and do not provide a means by which students can increase efficacy, motivation, and engagement. Their perspective delineates new roles and approaches for teachers, counselors, and school psychologists. A movement in policy providing opportunities for support would provide what they define as ownership of their education (Adelman & Taylor, 1998). They further assert that individuals will flourish in education if they are providing the opportunity to develop a sense of choice and

ownership of their environments and situations. These authors suggest that fostering resiliency in students can develop these characteristics within the school context. Without this setting, students and their environment will be a mismatch and personal development will be hindered. Hence, the opportunity for making decisions (i.e., having a sense of control) will provide satisfaction and positive outcomes in student academic and social development.

Many other researchers have investigated what role autonomy and perceived control have had in satisfaction in adolescence and school environments. Huebner, Ash, and Laughlin (2001) investigated the direct role that control plays in school satisfaction among adolescence. These authors believe that positive attitudes about contextual factors in a student's life will facilitate positive attitudes towards school. Their research looked at how students moderated judgments about difficult situations is their lives. They hypothesized that an internal locus of control (i.e., autonomy vs. powerful others) was a mitigating factor in the overall satisfaction of students at school. Huebner, Ash, and Laughlin hypothesized that school variables (e.g., caring, supportive school climate, classroom stressors) have a direct correlation to a students academic self-concept.

The results of their research showed that cognitive interpretations of control were directly related to student expression of school satisfaction. That is, "students with an internal locus of control tended to be more satisfied with school" (p.174). What these findings show is the need for intrapersonal control of students in order for them to feel satisfied in school. A satisfaction in school would mean that these students have developed SDT's need for autonomy. Research has also investigated the role perceived control has played in school achievement and a child's engagement in school.

Skinner, Wellborn, and Connell (1990) used a process model of perceived control to investigate school performance. This process model of perceived control asserts that a child's engagement in academic learning is either encouraged or undermined by a teacher's direct behavior toward those children. The process model of perceived control is a motivational model explaining links between "individual experiences of the social context, their self-system processes (e.g., control beliefs), their patterns of action, and the actual outcomes of performance" (p. 22). Using this theory, the authors examined how beliefs would undermine engagement leading to a decline in performance. This engagement was directly influenced by a perception of control. Finally, academic success was positively correlated to personal engagement.

Results revealed by Skinner, Wellborn, and Connell show that teacher behavior diametrically influences student's perceptions of control. These students who exhibited a high perception of control were more engaged in their academic pursuits. An analysis of engagement revealed a positive correlation of engagement and grades or achievement in school. These outcomes have important implications in school systems where there are a small number of minority students. This is due to their inability to properly represent minorities in their sample population. Skinner, Wellborn, and Connell (1990) investigated this role of perceived control in an upper to middle class community in New York. In their study, the predominance of white participants (88%) means an inference cannot be made when considering cultural differences in the function perceived control maintains in academic outcomes.

Yamauchi, Kumagai, and Kawasaki (1999) looked at perceived control from another cultural vantage point. In their study, perceptions of control were examined in relation to

self-regulated learning among Japanese junior and high school students. Factor analysis used in this study showed that learning strategies were contingent upon their own personal approaches to education and student's perceptions of control are directly related to educational outcomes. Furthermore, results indicate that there is also a developmental difference in the notion that perceived control is correlated to academic success.

Confirmatory factor analysis supports a developmental difference among variables related to perceived control. Junior high school students (.67-.71) reported a lower need for control than high school students (.73-.75). Although these differences are not very significant, there is an indication that a difference is present. There was evidence that similar needs for control are important to both groups but that high school student's perception of control is more important in terms of learning strategies. This study is important because there is little research related to developmental differences towards perception of control and implications in an academic setting. But what about cognitive developmental differences in perceptions of control and their influence on academic outcomes?

Taylor et al. (1989) reported on the importance of students having control in both special education and regular education and its influence on their self-concept. This is important research. Certain students may perform at specific levels when they are labeled and directed into specific intellectual and perceptual classifications. In Taylor et al's study, students showed that significance between perception of control and academic performance was not specifically contingent upon intellectual levels. Special education students rating of the value of perceived control was directly related to a students feeling about school. Students in the experimental special education groups elevated reports of

perceived control versus the nonexperimental groups reports supports their hypothesis that students in these special education classes believe they have less control at school.

This study also analyzed age differences, ethnic differences and gender differences in the ratings of perceived control. Only two items reported in this study were significantly higher for older students in relation to perceived control. Minorities only reported one item in which they had a higher perception of control. Finally no significant differences were found on any items reported in the study in relation to gender differences. These specific items were not indicated in the article for any subgroup.

Perrillo (1978) also investigated the differences between males and females perceptions of control and successful outcomes. His findings suggest that women are more likely to perform at a lower level because they believe that they have a lower level of control with regards to their outcomes. Perillo also asserts that men have higher outcomes because they are given control in desirable situations that is not granted to women.

These findings are contradictory to the more recent study by Taylor et al. (1989). Taylor et al's. study research that there are no reasonable differences between genders on the role of perceived control on outcomes. Whereas, Perillo (1978) suggests that indeed there are gender differences in terms of the role of control on outcomes.

Other research has supported academic outcomes related to perceived control (Brigham, 1979; Nicholls, 1984; Savage, Perlmuter, & Monty, 1979). Nicholls (1984) examined the role that choice played in goal attainment. He postulates that individuals will succeed if they are given choice about goals they desire to attain. If an individual is given the opportunity to select goals that they enjoy and feel competent in, they are more

likely to achieve those goals. Since prior research showed that performance increases with effort and effort is dependant upon choice, it can be assumed that performance is directly related to choice. Nicholls evaluation supports many theories related to task performance.

Savage, Perlmuter, and Monty (1979) discuss what happens when a reduction of choice is imposed upon a learning environment. In investigations employing two conditions, these authors reported that subjects allotted multiple choices are more likely to expect choice and react when choice is not given. The authors do note that there is still a significant difference in disruption of learning when subjects were not given any choice. What this means is that people are more apt to desire control when they have been allowed to make choices in the past. However, if a subject has never had choice they are not as likely to be happy with outcomes, as are subjects that were given multiple choice options at one point in time. This is important because it supports the need for choice. If individuals are not allowed choice, then learning will suffer. If learning suffers, academic performance will suffer.

Brigham (1979) investigated this relationship previously mentioned between academic performance and choice. In this study, students were allowed to proceed on the assigned math material at their own rate. Results of this study showed that both individual and group progress through math steps rose when the subjects were allowed to proceed at their own rate as compared to subjects that were given imposed guidelines. Evidence shows that these students completed twice as much work as did students that were given the deadlines. The author states that, "when subjects were given the opportunity to make a choice about some aspects of a situation before responding, they

work harder, faster, and reacted more positively to the situation than when they were unable to make such choices" (p. 140).

Other research also discusses other variables that play a role in academic achievement. Hortacsu and Üner (1994) looked at the role of familial background and sociometric peer nominations as other predictors of academic achievement. They discuss external influences on achievement from a macrosocial perspective. In their research Turkish subjects were examined in a contextual construct with variables of family background, peer perceptions, and perceived control. Parental education was a significant predictor of how students perceived control. Students who parents have higher levels of education believe that powerful others have less control of their lives. These students also received higher marks in school.

Hortacsu and Üner's results were not as significant in terms of sociometric peer nominations. There was a positive correlation between the variables, but it was weak. Despite this, the correlation between perceived control and academic achievement is relatively high. Subjects that reported higher levels of control obtained higher grades in school. These authors do mention that the role of parental education may be more a matter of parenting styles than it is of education. These two items are more likely to be related than one may think. Parents with different parenting styles may be correlated to their education. If a parent has a higher level of education they may be more likely to practice a specific type of parenting. Whereas, a lower educational attainment may result from another type of parenting style.

Summary of Review of Literature and Theoretical Orientation

Satisfaction with life is an important construct in the area of positive psychology. Three variables have been found to relate to the development of satisfaction (autonomy, competence, and relatedness). Autonomy has been shown to play a significant role in the development of relatedness of situations and the development of competence in a particular field. Therefore, individuals that are given choice and control are more likely to find meaning and feel competent in what they are doing.

SDT supports healthy outcomes as a result of the obtainment of these variables (Deci, 1985; Kowal & Fortier, 1999). These findings seem to be supported by other research investigating the specific effects resulting from the obtainment of the aforementioned variables.

People tend to be more intrinsically motivated to achieve (Ryan & Deci 2000) when they fulfill this self-determined need. Information appears to be integrated into one's self when certain needs are met (Deci, Eghrari, Patrick, & Leone, 1994). Furthermore, self-concept is also affected by satisfaction (Terry & Huebner, 1995). All these outcomes are important for personal identities. It can be assumed that individuals will be more satisfied with life when their sense of self is not threatened. Limiting control and imposing specific regulations on behavior and focus can threaten this sense of self.

Perceived control has been directly related to satisfaction as well as academic success. People that conceive an internal locus of control are more likely to find happiness in there engagement in activities. Individuals who are restricted due to an external locus of control are more likely to find less interest and meaningful participation in the task at hand.

An allocation of control will result in many things. Specifically, research has indicated that a student's academic achievement is directly influenced by their perception of control. If a student believes they have some control of educational curriculum or focus on personal interests they are more likely to succeed in that particular area. Research has also indicated that individuals are more involved in campus activities when they have a perception of control (Madden, Woods, Dares-Hobbs, & Collins, 1987).

The results have shown that perceptions of control are important for all cultural groups. Previously investigated areas have also produced conflicting results about gender differences and the perception of control. In some research, it appears that both men and women support an intrinsic perception of control. In other research results indicate that males and females indeed differ on performance due to perceptions of control. These results say men perform higher in certain circumstances because they believe they have a higher sense of control than females. Finally, there appears to be developmental differences in the desire for control. Older students indicate they desire control more than younger students do. Cognitive development also appears to play a factor in control. Special education students in regular classrooms specify a belief they have less control over their education than do regular education students.

All this research has numerous contradictory data. No specific research investigates the role perceived control plays when comparing one cultural group to another. There is also no research that looks specifically at the role perceived control plays in life satisfaction differences between men and women. Finally, although there are some signals that developmental issues are related to the need for control, no specific research looks specifically at how different grade-level students desire control in order to be happy

or have a global satisfaction with life. Thus, this research investigated how perceived control relates to satisfaction and how the relevant demographic variables vary in relation to perceived control reports.

CHAPTER II

METHODOLOGY

The following is description of the methodological tactic used in this research study.

Selection

The initial stage of this research required consent from the Human Subjects Committee at the University of Hawai`i. Upon approval, school counselors and principals in many areas on the Island of Oahu were contacted and presented the theory and premise behind this research. Both public and private schools were contacted to represent every aspect of the educational population of the community. This data was used to entice school support from key figures within the school.

Once authorization from the school was received, teachers were enlisted with the help of the counselors to set aside class time for participants to take the surveys. After a collection of classrooms was established, the entire class was given parent consent and child assent forms to grant approval for participation. An average of 85% of students in every class gained and gave consent to participate from each class. The subjects were then administered the scales and short answer interview questions for approximately 30-40 minutes in their regular classrooms. A qualified graduate student or professor asked the students the survey questions. Each question was asked to the students as they make their way through the survey. A second administer was present during administration to answer any questions that the participants had during testing. The study took approximately two months to collect all the data from the various schools.

General Characteristics of the Study Population

Although this sample is a convenience sample of the population, it is consistent with the general population of students in the State of Hawai`i. The sample was drawn from schools in many different areas of the island of Oahu representing many cultural, socioeconomic, demographic areas of the entire community. Grades levels participating in this research range from third grade to twelfth grade.

The socioeconomic make-up of subjects was specifically taken into consideration. Schools sites were sought in many low, middle, and higher economic areas of the community. This was done to eliminate any overall bias due to socioeconomic factors related to the reporting of overall life satisfaction. Economic status could have been a significant factor in accounts of life satisfaction. It has been determined that this is not the central issue related to this research. It is believed that students stating higher levels of life satisfaction, in relation to school, are believed to reveal factors related to perceived control in school. Socioeconomic factors will only play a role in life satisfaction if satisfaction outside of school is low.

Procedure

In order to determine the relationship between overall life satisfaction in children and perceived control of their education, children were asked to complete the Multidimensional Students' Life Satisfaction Scale (MSLSS) and a modified version of the Perceived Control at School Scale (PCSS). These two scales were be combined with a few short answer questions to tie the two scales together and obtain ordinal data about each student's demographic background (i.e., age, gender, cultural identification, and grade in school) (Appendix I). The scores obtained on these assessment tools were

correlated to determine if there is a relationship between how happy a student is with their life and how much control they have over certain aspects of their lives. Variations of perceived control were then investigated to see if each demographic variable contributed differently to a student's perception of control.

Subjects' scores were examined in terms of the overall life satisfaction score on the MSLSS and their score on the perceived control items. These subjects' scores on the PCSS were then examined to determine if the students felt that they have control over their lives or if someone else is controlling what is happening to them. A Pearson's R correlation coefficient was calculated on these items relating to overall happiness on the MSLSS and the perceived control items of the PCSS related to school. After determining if there was a relationship between the dependent variable of overall life satisfaction and the independent variable of perceived control, variations of perceived control based on age, culture, and gender were examined using a general linear model. An R^2 then reported how much of this variation in perceived control could be explained by the demographic variables.

Research Design

The design of this research purported that student life satisfaction is important and should be studied. The investigator examined various life satisfaction and well-being scales and perceived control scales. It was deemed that the MSLSS and PCSS were quality and pertinent scales to use in this study. Students were administered the MSLSS and a modified version of the PCSS. Along with these scales, students were asked to provide some demographic information based on ethnicity, gender, age, grade, etc. These students comprised of participants at the three different school levels. This means that a

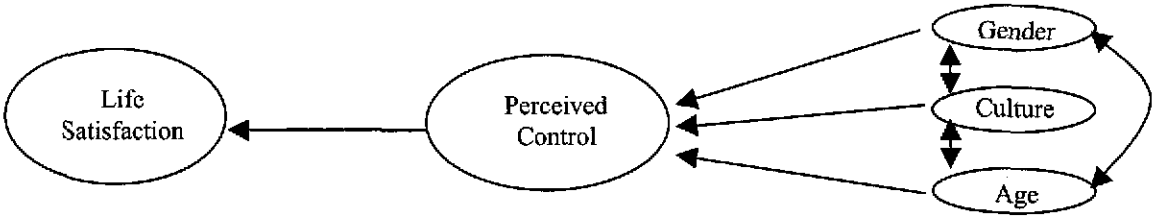
student sample was taken from elementary, intermediate, and high schools throughout the entire Hawai`i school system. It is believed that this sample provided researchers with a sample from various school settings and cultural backgrounds eliminating some of the biases that could have been a concern with a convenience sample.

Further investigation looked at demographic differences among three specific subgroups produced in this study. The first subgroup analyzed was gender. It was hypothesized that male subjects would report higher feelings of control than do females. The second subgroup consisted of cultural differences. It was hypothesized that the research would reveal that certain cultural beliefs resulted in differences in the notion of perception of control and how each culture perceived control. Finally, developmental (age) variations were examined in terms of control. That is, older students were hypothesized to feel more control in situations than do younger students.

The overall theory resulting from this research says that gender; cultural factors and developmental differences are significant variables in the need for perception of control. This need for control varies in its importance in obtaining life satisfaction (See Figure 1).

Figure 1

Life Satisfaction and Perceived Control Theory



This theory contends that a student's life satisfaction will have a direct relationship on the perception of control that the individual has. Furthermore, perceptions of control

will vary based on demographic differences of gender, culture, and age. These demographic variables can either have a singular effect on perceived control or have interaction effects. That is, combinations of gender, culture, and age can have a juxtaposed influence on perceived control.

Instruments

This study utilized two well-established scales used in research today. One of these scales looks at five domains of students' lives and how satisfied they are with those domains. The other scale looks at how much students perceive they have control over their schooling and school environments. Demographic information was obtained by combining these scales with the aforementioned questions on age, grade, ethnicity, and gender.

Multidimentional Student Life Satisfaction Scale (MSLSS)

S. E. Huebner (MSLSS, 2001) developed the Multidimensional Students' Life Satisfaction Scale to provide a multidimensional outline of children's satisfaction with life (Appendix II).

> Specifically, the MSLSS was designed to (a) provide a profile of children's satisfaction with important, specific domains (e.g., school, family, friends) in their lives; (b) assess their general overall life satisfaction; (c) demonstrate acceptable psychometric properties (e.g., acceptable subscale reliability); (d) reveal a replicable factor structure indicating the meaningfulness of the five dimensions; and (e) be used effectively with children across a wide range of age (grades 3-12) and ability levels (e.g., children with mild developmental disabilities through gifted children) (p. 2).

The MSLSS is a 40-item 4-point scale modified in this study to a 6-point scale. This format was suggested for middle and high school-aged children. Therefore, it is determined younger students can comprehend this as well. The author of this study believed that it was pertinent to obtain consistent scores transversely between age and grade levels. Therefore, the 6-point scoring scale was used for all subjects in this study. Scoring is based on the point system established from answers given on the scale. The higher the score a subject receives the high their level of satisfaction in that specific domain.

Huebner reported internal consistency (alpha) coefficients based on numerous studies ranging from .70s to low .90s. Test-retest coefficients were also reported mostly between the .70 - .90 range. These two areas indicate support for the reliability of this scale.

Huebner quoting many outside source examinations as well supported validity for the MSLSS. "Confirmatory factor analyses have provided further support for the multidimensional, hierarchical model consisting of a general life satisfaction higher-order factor at the apex of the hierarchy along with the five specific domains below" (p. 5). Convergent and discriminant validity was established by correlations with numerous self-report well-being indexes, parent reports, and teacher reports. Finding a correlation between gifted and emotional disordered children supported additional validation.

Perceived Control at School Scale (PCSS)

The PCSS is a 16-item designed to educe the degree that students perceive themselves having control at school associated with having opportunities to participate in decision making and to be self-determining (Smith, Adelman, Nelson, & Taylor, 1988).

The scale is based on experiences related to autonomy. Items are based on a 6-point likert scale with scores concerning low perceived control being 16 and high perceived control being as high as 96. Internal consistency (alpha) coefficients of this scale range from 0.69 to 0.80; test-retest reliabilities range between 0.55 and 0.80. Validation was done using reports of special education students in relation to regular education students. Special education students reported lower scores on the PCSS than did regular education students (Taylor, Adelman, Nelson, Smith, & Phares, 1989). When these students were given an experimental program designed to facilitate more involvement, their scores increased. A more complete report of validation data was done by Adelman (1986).

In the present study, certain items were eliminated due to their repetition. It was deemed that time constraints were more significant when these items had already been validated. Some of the items were repetitious to test the validity of the findings. Therefore, this scale was reduced to nine questions directly related to perceived control. Of these nine questions, only seven were directly associated with perceived control at school (Appendix III). Thus, the correlation analysis is based solely upon these seven specific questions.

Demographic Variables

Demographic variables examined in this study evaluated their relationship to the significance of control in satisfaction. Students were asked their age, grade in school, with what ethnic groups they identified the most with (e.g., Japanese, Hawaiian, Caucasian, or mixed), and their gender. The importance of these variables is related to prior mentioned research on perceived control variations. It was believed that these variables would significantly influence reports of perceived control.

Age was combined into four specific groups (early elementary, late elementary, middle school, and high school). This was done to establish groupings consistent with schools and expectations put forth on students at different levels of school.

Due to the small sample size of some cultural groups in the sample, only differences between seven cultural groups were analyzed in the final analysis. These variables were then examined in terms of their relationship to the desire for control. These seven groups are as follows:

1. Pacific Islander (Hawaiian, Samoan, Tongan)
2. Caucasian
3. Asian American, Asian
4. Mixed Pacific Islander (Pacific Islander/Caucasian, Pacific Islander/Asian)
5. Mixed Asian/ Mixed Asian American (Japanese/Chinese)
6. Other (African American, Hispanic, Middle Eastern, etc.)
7. Mixed Other (African American/Middle Eastern)

Gender make-ups were more easily subdivided. Males were placed in one group and females were placed into another. Male and female compositions were consistent with the general population. The sample was roughly 50-50 male and female respectively.

Statistical Analysis

The Statistical Package for Social Sciences (SPSS) was used to analyze the statistics produced in this research. A Pearson's *R* correlation coefficient was run to examine the relationship between perceived control and life satisfaction among school-aged children. This relationship can determine if perceived control is a factor in satisfaction of these research subjects. A general linear model analysis of variance (ANOVA) examined the

relationship amongst the independent variables to perceived control. The reason for an ANOVA is that it can help define which of the demographic variables are significant in a need for control and how interactions between these demographic variables can influence perceptions of control.

Limitations

The geographic area of the study population may influence scores. It may be that students in Hawai`i are, in general, more satisfied with life than other populations in other parts of the United States. Furthermore, there may be an instrumental influence on results. The perceived control scale was modified. This could have led to an inflated or deflated report of perceived control. Modifying the Perceived Control at School Scale could have caused a manipulation of results in one direction or the other. Also, if students perceive a need to respond in a particular manner, results will be based on what they perceive outcomes should reveal not what their true thoughts about the need for control are. Due to the unusual cultural make-up of the Hawaiian population, the generalizability of these findings to other communities may be difficult. These concerns may limit the validity of the findings.

The small sample size could have influenced results. By not covering a larger population, the student reports would produce higher levels of significance. Furthermore, self-reports particularly can impact actual outcomes reported in the study. Problems related to self-reports are a concern. Subject's perceptions and actual relationships may be different. Subjects may believe they are reporting correct information but actually just be giving biased information. Self-reports can also be falsified. Subjects could easily give

responses they perceive you want to hear or just randomly respond without actually understanding or believing what they are reporting.

Delimitations

The subjects in this study are taken from both public and private schools in Hawai`i. The participants volunteered in classrooms at school to participate in the study. These subjects were given the MSLSS, the PCSS, and a short questionnaire about demographic variables deemed significant. This may limit the generalizability of the findings in other groups not volunteering in the study.

CHAPTER III

RESULTS

This research took a three-step statistical approach to investigating the outcomes produced:

1. A Pearson's *R* one-tailed correlation coefficient was ran to examine the relationship between perceived control and life satisfaction at a $p < .0001$.
2. A general linear model analysis of variance (ANOVA) was run to determine the interaction among age (classified at school levels), the seven cultural groups discussed, and gender have on control beliefs. This correlation matrix shows means and frequencies along with the variation matrix resultant of the general linear analysis.
    a. First, the interaction between the three variables school level, cultural identity, and gender in combination were examined.
    b. Second, two-way interactions between these variables were examined to determine if any combination of two of these variables had an impact upon perceptions of control. These interactions were school level and gender, school level and culture, and culture and gender.
    c. Main effect variations examined which of the demographic variables influenced the reports of perceived control. School level, gender, and age were studied to determine if each variable was influential on student reports of perceived control separately.
3. A Scheffe's *post hoc* analysis was also executed to determine which subgroups within statistically significant two-way interactions were higher and lower on

reported perceived control. This determined which subgroups were indeed unique in combination to reports of perceived control. For example, if a Pacific Islander females report higher levels of perceived control than do Pacific Islander males.

Correlation Between Perceived Control and Life Satisfaction-Procedure 1

The results of a Pearson's *R* Correlation Coefficient reveals that there is indeed a relationship between perceived control and life satisfaction. A positive correlation between perceived control and life satisfaction was computed (r=.44, $p < .0001$). Three hundred ten subjects participated in this study. However, due to missing data, not every subject was integrated into the results reported in this study. Two hundred eighty-one (N=291) subjects reported scores related to these variables. This indicates that a perception of control influences how satisfied with life a student reports.

Descriptive Statistics of the Population

Descriptive statistics for each designated population breaks individuals into groups based on their membership in a specific group (Table 1). When explaining differences, 291 participants were included because of the difficulty obtaining statistical significance if population means are not high enough. Therefore, 291 participants out of the original 310 subjects who participated in the study were included in the analysis of group membership to simplify and explain statistical outcomes. These means and frequencies are provided to describe which participants were included and excluded.

Table 1

Cell Means and Frequencies
Autonomy by

Culture	School Level	Gender
1	1	0
19.06 (17)	21.44 (84)	20.20 (148)
2	2	1
19.42 (31)	21.15 (121)	20.82 (143)
3	3	
21.72 (78)	17.03 (38)	
4	4	
19.93 (40)	20.00 (48)	
5		
20.22 (58)		
6		
17.67 (3)		
7		
20.69 (64)		*N*=291

Note. Culture: 1=Pacific Islander, 2=Caucasian, 3=Asian, 4=Mixed Pacific Islander, 5=Mixed Asian, 6=Other, 7=Mixed Other; School levels: 1=Early Elementary, 2=Late Elementary, 3= Middle School, 4=High School; Gender: 0=Male, 1=Female.

General Linear Model-Procedure 2

Three-way Interactions Between Variables

Results of the three-way analysis indicate that there is a direct relationship between the three demographic variables combined and there relationship to perceived control (Table 2). What these results denote is that, collectively, school level, culture, and gender, have some type of an impact on the need for control. Variations of individual subjects control beliefs can be accounted for by a combination of school level, culture, and gender. It may be accounted for by certain genders and ages in certain cultures finding a perception of control more than others. These interpretations delineate an

interaction of culture, school level (age), and gender on overall reports of perceived control.

Table 2

Three-Way Interactions to Perceived Control

Variables	Sum of Squares	*df*	Mean Square	*F*	Sig of *F*
Sclvl Cult Gen	225.64	12	18.80	1.80	.049*

* Results of this general linear model are significant at the $p < .05$ level. Sclvl=school level; Cult=cultural identity; Gen=gender.

Two-Way Interactions Between Variables

Overall, two-way interactions between the three variables do not reach a statistical significance at the $p < .05$ level. However, it does appear there is a relationship among these variables (Table 3). Interactions indicate that this relationship cannot be explained because of two-way interactions in general. All these interaction do show a positive correlation. However, none of them reach statistical significance at $p < .05$. When combined, school level and gender materialize as variables, in conjunction, that approach having an impact on perceived control $F(3, 290) = 2.076, p < .10$. What this implies is that the three variables combined due influence reports of perceptions of control. However, when one of these demographic independent variables is removed, the relationship becomes insignificant $p < .05$. Despite this, combined school level and gender differences on reported perceptions of control do appear to have some influence that cannot be supported to a statistical level supporting this hypothesis.

Table 3

Two-Way Interactions to Perceived Control

Variables	Sum of Squares	*df*	Mean Square	*F*	Sig of *F*
Sclvl Gen	71.644	3	23.881	2.076	**.103
Cult Gen	60.47	6	10.08	.96	*.451
Sclvl Cult	183.98	14	13.14	1.26	*.236

* No significance was found between school level and gender, culture and gender, or school level and culture at $p < .05$. ** Significance was found on school level and gender at $p < .10$

A Scheffe's *post hoc* analysis of the two-way interaction was done only on the interaction between school level and gender. This revealed a significant difference between males and females in middle school and high school. This was limited because the only significant relationship found was between these two specific variables. Cell means and frequencies for these variables (Table 4) reveal that there is a progressive loss of control for both males and females. However, once males reach high school they report higher levels of control than were reported at other school levels. Whereas, females levels of control does not appear to increase like a males once they reach high school. As aforementioned, it appears that females report lower levels of control as they get older, with a slight increase in high school (Early elementary $M = 21.91$; Late elementary $M = 21.57$; Middle School $M = 16.64$; High school $M = 18.95$). Males also report a decrease of control as they get older as well (Early elementary $M = 20.84$; Late elementary $M = 0.72$; Middle School $M = 17.25$), but there is a significant increase for males in the report of control once they reach high school ($M = 20.81$).

Table 4

Two-Way Interaction Between School Level and Gender Means and Frequencies

School Level*	Males	Females
1	20.84 (37)	21.91 (47)
2	20.72 (60)	21.57 (61)
3	17.25 (24)	16.64 (14)
4	20.81 (27)	18.95 (21)

* School level: 1 = Early Elementary; 2 = Late Elementary; 3= Middle/Intermediate School; and 4= High School.

Main Effect Variations Between Variables

Main effect variations among the three variables manifest more differences on perceived control (Table 5). Complete main effect variations indicate that effects of these variables do indeed weigh on an individuals perceived control $F\,(10, 290) = 7.221, p <$ .00. When considered separately, the ANOVA signifies that only school level and culture show the only statistical significance.

Table 5

Main Effect Variations of Variables on Perceived Control

Variables	Sum of Squares	*df*	Mean Square	*F*	Sig of *F*
Main Effects	801.370	10	80.137	7.221	*.000
Sclvl	556.483	3	185.494	16.715	*.000
Cult	199.552	6	33.259	2.997	**.007
Gen	.108	1	.108	.010	***.921

Note. Sclvl=School Level; Cult=Culture; Gen=Gender. * Shows significance at $p <$ .00. ** Shows significance at $p <$ .007. *** No statistical significance.

Effects are the highest on perceived control for a students level in school F (3, 290) = 16.715. This suggests that student's school level is an indication of how much control a student perceives he/she has in terms of school. The results suggest that school level is the largest factor in how much control students perceive themselves as having. As students go further in school they report lower levels of control (Early elementary M = 21.44; Late elementary M = 21.15; Middle School M = 17.03; High school M = 20.00). However, there is an increase in significance from middle school to high school. This increase is large at a M = 2.97. This was a considerable increase after the evident decrease from elementary to middle school. There was a significant drop in perceptions of control from elementary school to middle school (M = 4.12). This is the largest increase or decrease from one level to the other.

The other variable that can suggest differences is culture. In Hawai`i, there appears to be a difference between two of the seven cultural groups defined in this study. Pacific Islanders and mixed Pacific Islanders report lower levels of control than do Asians/Asian Americans and Mixed Asians/Asian Americans (M = 19.06 and 19.93 vs. 21.72 and 20.22, respectively). What this suggests is that Pacific Islanders, of any type, perceive themselves as having less control than do Asian Americans or any type. Also important in this study is that Caucasians reported less control (M = 19.42) than any other significant group other than Pacific Islanders in Hawai`i (Table 6). The "other" group (consisting of African Americans, Hispanics, and Middle Easterners) was not large enough to make any interpretable conclusions.

Table 6

Cultural Group Means and Frequencies on Perceived Control

Cultural Group	Pacific Islander	Caucasian	Asian/ As. Amer.	Mixed Pac. Isl.	Mixed Asian	Other	Mixed Other
Means and Freq.	19.06 (17)	19.42 (31)	21.71 (78)	19.93 (40)	20.22 (58)	17.67 (3)*	20.69 (64)

* Due to the small frequencies in this group, no statistical interpretations can be made based on inclusion in this group.

These results of the general linear model suggest that there are different combinations of variables that relate to perceptions of control. An R^2 reveals that only 22.4% of the variance of reported perceptions of control can be attributed to demographic variables reported. Therefore, this model cannot explain 77.6% of the variance. Differences in reported perceived control do have relationships to the aforementioned demographic variables. However, more of the variance is explained from some other unmentioned factors.

But how do all the independent variables combinations relate to overall life satisfaction? This question can be answered by a path analysis to investigate how these relationships between school level, culture, and gender have on perceived control and how that relationship influences a student's life satisfaction.

Initially a path analysis was going to be computed to determine how the relationship of the independent variables school level, culture, and gender, impact perceived control and how that association affects student life satisfaction. However, due to how many paths this research produced (156) and how many subjects participated in this research (310) no statistical significance could be produced. So many paths would have developed that it was impossible to compute a path analysis. These variables produced composite

scores resulting in combinations of independent variables and their correlation to the dependent variable of life satisfaction. These relationships resulted in so many paths in which they could follow. Some paths looked at each of the demographic variables and their influence on perceived control and how this relationship could affect a student's life satisfaction. Other possibilities were that each of these demographic variables could have a direct influence on a student's life satisfaction. Despite these various directional relationships, the purpose of this research was not to investigate how each of these demographic independent variables influenced the function perceived control has upon life satisfaction. Therefore, it was deemed important to still investigate the differences between demographic variables and perceived control. It was also the main hypothesis to investigate the relationship of perceived control and overall life satisfaction. Since no statistical significance could be produced using a path analysis, it was not run.

CHAPTER IV

DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

Discussion

The major hypothesis of this paper was that there is a positive relationship between a school-aged child's intrinsic perceptions of control and his or her overall life satisfaction. Statistical analyses have substantiated these findings. There appears to be a significant relationship between internal perceptions of control and student's feeling satisfied with life. As students perceived control went up, their life satisfaction went increased. As their perceived control went down, their life satisfaction decreased.

Previous studies hypothesized that perceptions of control were indeed indicative to an individual's sense of well-being. Internal locus of control has indeed provided a means for students to find meaning and significance in school-based activities and life as a whole. The positive correlation produced by this research is conducive to prior research. The school-aged children in this study reported higher levels of internal locus of control when also reporting higher levels of reported life satisfaction. What this means is those students will actually find life more meaningful and fulfilled if they are given the opportunity to control the process by which their own outcomes are produced.

According to the prior mentioned research, this opportunity to make choices and decisions has significant implications. It has been reported that students are more successful in school, find more meaning in education, and have more successful results when they are satisfied or happy with what they are doing. This research indicates that supporting an internal locus of control will produce more positive reports of overall satisfaction. As self-reported levels of perceptions of control increase, so does overall life

satisfaction. As self-reported levels of perceptions of control decrease, levels of overall life satisfaction decrease.

This research also investigated the role that age, cultural ethnicity, and gender played in the perceptions of control. It was hypothesized that these variables would be related to the position that perceptions of control have on a school-aged child's overall life satisfaction. It was also recognized that these variables might also have a direct effect on overall satisfaction. Therefore, an initial complex analysis of variance was utilized and determined which of these variables was related to perceptions of control (i.e., cultural ethnicity, age, gender). However, statistical analysis could not produce any significance on the directional relationship between these variables. Therefore, no conclusion could be drawn.

The hypotheses that age, culture, and gender would influence perceptions of control produced mixed results. First, there does appear to be a very small, but insignificant, relationship of all three variables on the outcome of an internal perception of control. When combined, these three independent variables appear to have an influence on perceptions of control. This result could have various explanations:

a. The population studied may have influenced results of this study. Since twenty of the subjects were excluded from the study, the results are only a representation of a specific population of people. For example, not every cultural group was equally represented, it may have excluded cultural groups that have specific gender roles and expectations for those gender roles. Also, it may be that some cultural groups promote more different levels of autonomy at different ages.

b. Since there appears to be no relationship between gender differences and internal perceptions of control on life satisfaction, it obviously would influence the total outcome of the research.

Since these results were not significantly supported, it would be realistic to broaden the scope of this investigation to other cultural groups and communities. By including a more extensive representation of the entire population, researchers could better explain the three-way relationship between these variables on perceptions of control. It would also be important to broaden the sample population to produce more significance and correlations.

The two-way interaction between school level (age) and culture also did not provide evidence of a relationship to perceptions of control. These results could also have been influenced by the cultures studied. Since previous research has only examined the relationship between perceptions of control and certain ethnic groups, this research was investigating cultural populations (Hawaiians, etc.) that had not been examined. By examining cultural groups not previously studied, results may produce inconclusive and no meaningful results.

For the same reasons, cultural differences and gender were not deemed statistically significant. This interaction linking these two variables does not appear to have an influence on intrinsic perceptions of control. Cultural inclusion appears to not be a predictor of perceptions of control when examined in concurrence with one of the other two variables inclusively. However, when all three variables were combined, culture did have an impact on perceptions of control.

However, an interesting result of this research is that there is a relationship involving school level and gender. The statistical results of this research signify that there is a relationship of age and gender on perceptions of control. As females get older, they report less internal locus of control. These self-reports then level off after a female reaches middle school and proceeds into high school. Whereas, a male reports the same drop in perceptions of control all the way through middle school. However, in high school, males report that their internal locus of control increases dramatically. These results did not reach a level of significance of $p < .05$. However, by examining this data, it was concluded that significance would have gone up by eliminating groups that did not have frequencies high enough to produce outcomes. Therefore, it has been concluded that this interaction would produce significant differences between school level and gender.

What this implies is that boys find a higher levels of internal control once they reach high school than females do. These results could be produced by many different factors. One, a male may feel more in control because of biological factors. Since individuals go through puberty and hormonal changes through middle school. During this developmental stage in school, administration and faculty may impose more structure and regimen on the students. Once the student reaches high school, boys may become more autonomous because they are allowed more opportunities to make decisions. On the other hand, females may be more restricted because of social stigmas and regulations put on women and girls. Society may expect women to not express themselves as much as men are encouraged to express themselves.

A second explanation is that athletic participation may also influence student's perceptions of control. Since males participate more in athletics, they may feel as if they

are allowed more freedoms and opportunities to make choices. Whereas, females may be guided into specific areas related to socially manifested ideals of what a females responsibility is in life. This feeling of social responsibility could create a feeling of loss of control in females during high school years. However, if this possibility was conclusive, one could assume that different cultures would influence these outcomes.

Finally, it should be considered that these results might be gender biased. The questions examining the perceptions of control may be more generative of male reports of perceptions of control. The questions could realistically influence which gender reports higher self-reports of perceptions of control. Therefore, it would be reasonable to examine the reliability and validity of these questions based on gender bias.

To explain these interesting two-way interactions may take even further research. It would be reasonable to assume that there may be a larger difference between cultural groups in relation to both gender and age when examining perceptions of control. This would be a significant investigation by broadening the cultural groups included in the statistical analysis of the outcomes. For example, the majority population of the rest of the United States is Caucasian. By having such a small sample of this ethnic group, the majority of the population was not well represented. Therefore, it would be useful to increase various cultural samples in this study.

An examination of age and gender produced the only significant two-way interaction variation in these results. This suggests that there is a relationship between age and gender on school-aged student's perceptions of control. Therefore, no further examination of this construct is deemed pertinent. However, it may be beneficial to examine what factors are related to those differences in perceptions of control.

Main effect variations in perceptions of control reveal that gender by itself does not influence perceptions of control. This is interesting since there is a relationship between gender/age and perceptions of control. This could explain that individuals do desire control in their lives, but females feel as if they are not given that opportunity at certain stages in life. It could also indicate that even though there are age differences in perceptions of control, females and males do not differ in their overall desire to have control of their lives. These findings suggest that the prior research reporting no gender differences in perceptions of control is correct.

School level (age) has the most significant singular impact on perceptions of control. As reported students report that in early elementary, students report the highest levels of control. As they get older, they begin to report lower levels of control up through middle school. All students do then report an increase of control once they reach high school. Some factors may influence these outcomes. One, a developmental perspective may be taken. As individuals get older their perceptions of what control is may change. When they are in elementary school, students may believe that what opportunities they are given constitute control. Once they reach middle school these same opportunities do not provide opportunities for them to make decisions. Then, as they reach high school, they are given more choices (i.e., what classes to take, involvement in extra curricular activities, ability to drive) resulting in a sense of autonomy. This could result in student's perceptions of control changing throughout their development.

Another explanation may be that student's hormonal changes influence what they constitute as control. The substantial drop in control reports during middle school could be related to puberty. During this time, student's emotions and feelings towards things

are changing. Before this change, students may want one thing, go through the physical changes, want something else, and then once the physical changes subside, change their perception of what they want again. This could change not only perceptions of control, but also actual viewpoints of what constitutes control.

Finally, these age-related differences may be explained through actual changes in control opportunities. During elementary school students may receive opportunities to make choices about many aspects of their lives. A student may feel like choice is an option given them during elementary that is not provided again until high school. It may be important to investigate what ideas child feel is related to control. This would provide a realistic investigation into what factors would be related to age differences in perceptions of control. For example, if a student in elementary school says perception of control is involvement in classroom and familial activities that could be different than in middle school. A middle school child may feel as if control is having the right to choose everything they want to do. Whereas, a high school student may view perceptions of control as having many options to choose from. Since the later is the assumed definition of perceived control, it may be pertinent to examine age differences related to specific areas of opportunity.

The final main effect variations are related to cultural differences. Here, the results indicate that certain cultural groups report various levels of perceived control. Asian/Asian Americans and mixed Asian/Asian Americans report the highest levels of control. Whereas, Pacific Islanders and Mixed Pacific Islanders reported some of the lowest levels of perceived control. Examining these cultural differences can explain many disparities between the groups. These cultural differences could also examine differences

in what one culture constitutes control as opposed to another culture. However, there may be other factors related to other extraneous variables. For example, since there is evidence that Pacific Islanders live in a lower economical climate than do Asian Americans, how do economic factors play a role in perceptions of control? These and other demographic variables could explain differences just as significantly as did the differences between Pacific Islanders and Asian Americans.

R^2 only explains almost one-fourth of the variance in reports of perceived control. Since there are obviously many factors related to perceived control, they might likewise have a bearing on reports of overall life satisfaction. Therefore, it is pertinent to examine a path analysis of what the demographic factors investigated relate to perceived control and how these higher reports of perceived control can induce higher levels of life satisfaction. This analysis can provide a more comprehensive explanation of the minor research hypotheses about demographic factors play a part in perceived control. At this point, this research is not capable of making any interpretations about the relationship between demographic variable variations on perceived control and their influence on life satisfaction. The only interpretations that can be made are: that indeed there is a relationship between perceived control and overall life satisfaction, that school level, gender, and cultural ethnicity three-way interactions have an impact on reports of perceived control, that school level and gender combined have an impact on perceived control, and cultural ethnicities and school level variations are evident on reported perceptions of control.

Conclusion

This research supports the hypothesis that there is a positive correlation between perceived control and students life satisfaction. Students that reported high levels of internal perceptions of control also reported higher levels of satisfaction with life. These findings support SDT's assertion that individuals will find satisfaction and meaning in activities that they either chooses to participate in or have a choice in how this participation takes place. The construct of perceived control can be directly attributed to the outcome of satisfaction.

This research reveals that a relationship between cultural ethnicities, gender, and school level influence reports of perceived control. Males and females at different age levels, in different cultural groups, reported having differences in their view of control. Asians/Asian Americans and Mixed Asian Americans show higher levels of control in school and at home. Whereas, Pacific Islanders and Mixed Pacific Islanders report the lowest levels of control for any significantly represented population in this study.

There is some evidence that the relationship between age and gender can have an influence on perceived control. The results suggest that students find more control at a younger age and it decreases, as they get older. This decrease then increases when students get to high school. Age can also be directly related to reports of perceptions of control. This pattern follows the same linear path for boys and girls. At younger ages, students report higher levels of control with a decrease in middle school. This decrease subsides when students reach high school. Patterns reveal that these results are consistent among many different demographic variables (i.e., ethnicity, age, gender) but are not as statistically significant for some demographic groups as for others. The only difference is

that boys report lower levels of control until middle school than do girls and then report higher levels of control through high school.

The evidence also suggests that Asian and Asian Americans report higher levels of internal control than do Pacific Islanders and other ethnic groups. These differences produce statistical significance. Asian Americans report higher levels of control through the school years than do Pacific Islanders. This suggests that there is some cultural explanation of what perceptions of control are and what is considered when analyzing how much control individuals have. The explanation could be that Pacific Islanders and Asian Americans have differences in what constitutes perceived control. Pacific Islanders are typically interested in what they do for their families and how that influences familial needs. If a Pacific Islander does something that impacts their family, they would be more likely to find control because they chose to do it.

Also, a Pacific Islander may find that perceived control is not pertinent to being satisfied with life. Asian American may find perceptions of control to be more influential on life satisfaction. Since Asian culture values the community as a whole, and family has a higherarchical familial relationship, it may be that life satisfaction stems from other external factors. It may also be addressed that Pacific Islanders may find higher levels of satisfaction in one particular domain (i.e., family) and find less satisfaction in another (i.e., school/self). This could influence overall reports of life satisfaction. Therefore, interpretation of this data cannot make conclusions based on any demographic variables.

There also is evidence that age is directly related to how much control individuals feel like they have. The evidence suggests that individuals report the same amount of control at the same age despite other demographic variables. The only conclusion that can

be drawn from this information is that, individuals at different age levels feel like they have different levels of control of their lives. Individuals at the middle school level do report the lowest levels of control and this data is consistent across genders.

Recommendations

Future examination of the demographic variables is necessary in future research in order to determine differences in variable influences on perceptions of control. Some further research can be done in these specific areas:

1. Gender differences in answers may be investigated in terms of responses to specific questions related to perceived control. It would deem well to examine how valid these questions are based on gender responses. These questions could also be examined on if they determine how different age groups may view perceptions of control differently.
2. Investigation into other ethnic groups is also important. Due do the lack of other cultural groups, these findings can only be interpreted based on these two specific cultural groups. It may become evident that many different ethnic groups are different in terms of perceived control and how the other demographic variables are prevalent in that relationship. Furthermore, other countries may also produce different results. Since these results are based on only one state, other states and countries may also produce different results.
3. Examining the differences in cultural reports of life satisfaction in the five domains of the MSLSS could also prove vital. It may be found that cultural differences are found in satisfaction within certain domains. For example, Asian Americans may be more interested in the school and self domains, whereas

Hawaiians may be more concerned about their family and living environment domains.

4. Other demographic variables may also influence these results. It may be determined that the impact of socioeconomic status may be large for these variables. There was evidence that the two cultural groups were different on reports of perceptions of control. This difference could have been due to socioeconomic factors and not actual ethnicity factors. Therefore, further research may examine the role of socioeconomic factors on perceptions of control.
5. A larger sample population may also be examined. As is evident, some of the age levels and cultural groups were significantly small. Furthermore, statistical analysis on such a small sample population makes it impossible to come up with any significance. An enlargement of the total population in further research should include larger proportions of middle school and high school populations. Also, an overall increase of the sample would allow for analysis of relationships between all variables in this study. These factors could substantially influence the overall outcomes produced by the research.
6. A multiple regression analysis could also be used to determine the direct effects that the demographic factors have on life satisfaction. It may be concluded that these demographic factors could indeed impact overall student life satisfaction. By using a multiple regression and path analysis, researchers could determine which variables become influential on different levels of perceptions of control as well as levels of life satisfaction.

7. Other extraneous variables may also influence the outcomes produced in this study. For example, school climate may influence different students differently. It may be deemed pertinent to examine schools differences and environments to determine if they have an impact on life satisfaction as reported by students.
8. After increasing the sample population, a path analysis could reveal the relationship of the demographic variables on perceived control and overall life satisfaction. Since this research was not looking at the direct relationship of those variables, only a path analysis could determine which demographic variables influenced the relationship between perceived control and overall life satisfaction. This path analysis could also reveal the direct relationship of the demographic variables on life satisfaction.

A qualitative study may also broaden the understanding of what particular factors may be different in self-reports of perceived control and life satisfaction. Interviewing children from different cultures may produce outcomes that divulge extraneous and internal factors that influenced the results. These interview responses may also provide other information not covered in the study.

Every variable in this study has produced differing results. While some variables have produced statistically significant results, others have not. Recommendations for further research may exclude gender as a variable if it is determined that different genders do not vary in the need for autonomy in order to find satisfaction with life. It may be impossible to determine every factor related to life satisfaction. Therefore, it may be considered to examine various important factors such as relatedness, connectedness, and autonomy (internal perceptions of control) in combination across various demographic

factors. It would be viable to provide research to support that these variables are indeed related to reports of satisfaction with life or overall sense of well-being. This could provide further support for Social Determination Theory.

APPENDIX A

DEMOGRAPHIC QUESTIONAIRE

1. How old are you?
2. Are you male or female?
3. What grade are you in?
4. How do you describe yourself? (Mark all that apply)
    a. Native Hawaiian, Micronesian, Samoan, or other Pacific Islander
    b. Chinese
    c. Filipino
    d. Japanese
    e. Korean
    f. Vietnamese
    g. White or Caucasian
    h. Black or African American
    i. Hispanic or Latino/Latina
    j. Other _____

APPENDIX B

MSLSS

We would like to know what thoughts about life you've had during the past several weeks. Think about how you spend each day and night and then think about how your life has been during most of this time. Here are some questions that ask you to indicate your satisfaction with life. Circle the number (from 1 to 6) next to each statement that indicates the extent to which you agree or disagree with each statement. It is important to know what you REALLY think, so please answer the question the way you really feel, not how you think you should. This is NOT a test. There are NO right or wrong answers. Your answers will NOT affect your grades, and no one will be told your answers.

Circle 1 if you **STRONGLY DISAGREE** with the sentence
Circle 2 if you **MODERATELY DISAGREE** with the sentence
Circle 3 if you **MILDLY DISAGREE** with the sentence
Circle 4 if you **MILDLY AGREE** with the sentence
Circle 5 if you **MODERATELY AGREE** with the sentence
Circle 6 if you **STRONGLY AGREE** with the sentence

1 2 3 4 5 6	1. My friends are nice to me
1 2 3 4 5 6	2. I am fun to be around
1 2 3 4 5 6	3. I feel bad at school
1 2 3 4 5 6	4. I have a bad time with my friends
1 2 3 4 5 6	5. There are lots of things I can do well
1 2 3 4 5 6	6. I learn a lot at school
1 2 3 4 5 6	7. I like spending time with my parents
1 2 3 4 5 6	8. My family is better than most
1 2 3 4 5 6	9. There are many things about school I don't like
1 2 3 4 5 6	10. I think I am good looking
1 2 3 4 5 6	11. My friends are great
1 2 3 4 5 6	12. My friends will help me if I need it
1 2 3 4 5 6	13. I wish I didn't have to go to school
1 2 3 4 5 6	14. I like myself
1 2 3 4 5 6	15. There are a lot of fun things to do where I live

1 2 3 4 5 6	16. My friends treat me well
1 2 3 4 5 6	17. Most people like me
1 2 3 4 5 6	18. I enjoy being at home with my family
1 2 3 4 5 6	19. My family gets along well together
1 2 3 4 5 6	20. I look forward to going to school
1 2 3 4 5 6	21. My parents treat me fairly
1 2 3 4 5 6	22. I like being in school
1 2 3 4 5 6	23. My friends are mean to me
1 2 3 4 5 6	24. I wish I had different friends
1 2 3 4 5 6	25. School is interesting
1 2 3 4 5 6	26. I enjoy school activities
1 2 3 4 5 6	27. I wish I lived in a different house
1 2 3 4 5 6	28. Members of my family talk nicely to one another
1 2 3 4 5 6	29. I have a lot of fun with my friends
1 2 3 4 5 6	30. My parents and I do fun things together
1 2 3 4 5 6	31. I like my neighborhood
1 2 3 4 5 6	32. I wish I lived somewhere else
1 2 3 4 5 6	33. I am a nice person
1 2 3 4 5 6	34. This town is filled with mean people
1 2 3 4 5 6	35. I like to try new things
1 2 3 4 5 6	36. My family's house is nice
1 2 3 4 5 6	37. I like my neighbors
1 2 3 4 5 6	38. I have enough friends
1 2 3 4 5 6	39. I wish there were different people in my neighborhood
1 2 3 4 5 6	40. I like where I live

APPENDIX C

MODIFIED PCSS

1. Do you get to help make class rules or choose things to do at school?
    a. No, never
    b. Yes, some of the time
    c. Yes, most of the time
    d. Yes, all of the time
2. At school, do you have a say in what happens if you break a rule?
    a. No, never
    b. Yes, some of the time
    c. Yes, most of the time
    d. Yes, all of the time
3. Do the teachers and other grown-ups at school listen when you have something to say?
    a. No, never
    b. Yes, some of the time
    c. Yes, most of the time
    d. Yes, all of the time
4. At school, do people let you be yourself and act the way you are?
    a. No, never
    b. Yes, some of the time
    c. Yes, most of the time
    d. Yes, all of the time
5. At school, do you have a choice in what you are learning?
    a. No, never
    b. Yes, some of the time
    c. Yes, most of the time
    d. Yes, all of the time
6. At school, can you change something if you don't like it?
    a. No, never
    b. Yes, some of the time
    c. Yes, most of the time
    d. Yes, all of the time
7. At school, are others always making decisions for you?
    a. No, never
    b. Yes, some of the time
    c. Yes, most of the time
    d. Yes, all of the time

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