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Cynthia L. Taylor
Iowa State University

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Assessment of happiness among young adults: A construct validation study

Taylor, Cynthia L., Ph.D.

Iowa State University, 1988

Assessment of happiness among young adults:

A construct validation study

by

Cynthia L. Taylor

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TABLE OF CONTENTS

LIST OF TABLES

Page

INTRODUCTION

Research interest in the study of happiness and life satisfaction has been steadily growing since the early part of this century. Social scientists, philosophers, and theologians have defined happiness and studied it within their own perspectives (Veenhoven, 1984a). Beginning in the 1950s, a new movement in social science which was related to national and cross-national survey research, the Social Indicators' Movement, was begun. Happiness and life satisfaction questions were added to large scale Social Indicator survey projects and many studies were conducted. At the present time, the study of happiness and life satisfaction has taken many new directions (Diener, 1984).

Related to assessing happiness in the individual, many empirical studies have been conducted over the last sixty years. The study of happiness can be categorized by two general approaches. The first method is based on an individual's affective processes or moods. The second method is based on an individual's notions of the needs and aspirations being sought (Andrews & Withey, 1974). Bradburn (1969) pioneered affective happiness by weighing the amounts of pleasant affect against the amounts of unpleasant affect experienced. This second method involves asking individuals to indicate their subjective impressions of happiness by needs and aspirations. This method will be utilized in this study in regard to a student population.

The study of college students' subjective happiness is important for two reasons. First, by indications of happiness the students'

ability to make a positive adjustment to the academic and nonacademic aspects of college life is signalled. Second, sources of unhappiness can be identified from this process, and intervention provided. Bloom (1971) suggested that studying the occurance of students' personal problems was a vital link in providing adequate mental health services. Houston (1971) studied the etiology of students' psychological problems and identified typical problem areas such as: academic stress, peer relationships, heterosexual adjustment, self-identity and autonomy apart from one's family, and vocational planning.

No studies of college students were found using a measure of perceived happiness whose content was developed specifically from the many indicators of happiness identified in the research literature. Such information could be of assistance to students in their psychological adjustment to academic life specifically by the identification and removal of unhappiness provoking symptoms and by providing information and assistance via campus support services.

Purpose of Study

The purpose of this study was to develop an instrument which would be capable of identifying sources of perceived happiness potentially related to a university population. This was initiated by hypothesizing apriori sources of happiness, developing an instrument, collecting, and analyzing data among different university student groups at Iowa State University.

Research Question

Three research problems were formulated for the examination of perceived happiness among university students.

1. To determine the sources students identify which would be potentially related to their perceived happiness.

2. To determine how these sources might vary among International and North American students, males and females, on measures of actual and ideal happiness.

3. To determine how these sources might vary for the individual on measures of actual and ideal happiness.

Definitions

1. Actual Happiness – current identified happiness based on an individual's perceptions of affective and cognitive happiness being experienced.

2. Ideal Happiness – future identified happiness based on an individual's perceptions of affective and cognitive happiness being experienced.

REVIEW OF LITERATURE

The purpose of this review is to present an overview of happiness
that has emerged in research studies spanning the last 60 years. Early
studies, presented first are followed by more recent studies, theoretical
approaches, and influential research. Since the purpose of this study
was to identify sources, the review will also contain a section on stu-
dents' adjustment to campus life, from a North American and an Interna-
tional student perspective, and a review of ahppiness measures that have
been used with student and adult populations. A brief summary will
follow each subtopic and at the end of the chapter.

Early Studies

Happiness research with a focus on the various ways individuals ex-
perience their lives can be traced back to the arly part of this century
(Veenhoven, 1984a). As interest steadily grew, social scientists began
obtaining life satisfaction and subjective happiness data during the
1950s. By the 1960s, these data, from national and cross-national polls,
were considered to be influential in national policy decisions as well as
in presenting promising indications about the nature of human behavior on
the psychological frontier. During each period, many important studies
were undertaken. In the interest of presenting a comprehensive review
of research, and, at the same time, providing evidence of the breadth of
research covered, the early research studies have been highlighted by
utilizing a number of the existing reviews of published research (Arkoff,
1975; Diener, 1984; Fellows, 1966; Fordyce, 1972; Wilson, 1967).

Happiness Correlations

In Fellows' (1966) review, the concept of happiness is examined in regard to the psychological and sociological perspective of the day: goal setting, performance, and motivation (Cassel, 1954; Hutschnecker, 1964), the release of tension (Gumpert, 1951), the release of energy (Brochman, 1950; Hutschnecker, 1964), and was felt to be equated with positive mental health and psychological well-being (Bradburn & Caplovitz, 1965). Correlates found to be positively identified with happiness were evident from survey data: enjoyment, interest, and success in one's occupation or related meaningful activity (Flügel, 1925; Iisager, 1948; Lawton, 1943; Watson, 1930), good health (Iisager, 1948; Lawton, 1943), and the prevalence of good health in childhood (Watson, 1930). Social relationships, which included support from friends and family, were also apparent (Iisager, 1948; Lawton, 1943; Watson, 1930). Related to the individual, pleasant affect (Flügel, 1925; Gillespie, 1942; Lawton, 1943), positive functional feelings (Flügel, 1925; Lawton, 1943; Symonds, 1937), and a clear conscience (Iisager, 1948) were found to be positively associated with happiness. In Gillespie's (1942) wartime study, the sample group was totally British working class adults who identified many factors related to their happiness: religious beliefs, security, knowledge, humor, politics, action, equity, leadership, and beauty. Other aspects of Fellows' (1966) happiness research review included happiness in regard to uses of leisure time, age differences, cultural perspectives, and

commonly held myths.

Wilson's Happiness Critique

Wilson's (1967) review of happiness literature was considered to be one of the most concise presentations of comparative research and psychometric issues written to date. He postulated that happiness was defined by the prompt satisfaction of three types of needs: physiological, pleasure-seeking, and acquired. A second postulate was that on individual's happiness and degree of fulfillment were dependent upon variations in adaptive levels, past experiences, comparisons with others, values, and other factors.

The summary of correlates positively associated with happiness as identified in Wilson's (1967) review and supported by other researchers included: happy childhood memories (Barschak, 1951), youth (Bradburn & Caplovitz, 1965; Gurin, Veroff, & Feld, 1960; Kuhlen, 1948), successful social relationships including one's spouse (Bradburn & Caplovitz, 1965; Chassell, 1928 (cited in Wilson, 1967), Gurin et al., 1960; Smith, 1961; Watson, 1930), reduced worrying (Bradburn & Caplovitz, 1965; Chassell, 1928 (cited in Wilson, 1967); Gurin et al., 1960), high job morale (Bradburn & Caplovitz, 1965; Watson, 1930), favorable self-descriptions (Smith, 1961; Watson, 1930), the ability to identify sources of happiness (Gurin et al., 1960; Laxer, 1964; Smith, 1961; Symonds, 1937), a stable home environment (Washburne, 1941; Watson, 1930), future optimism (Gurin et al., 1960), education (Bradburn & Caplovitz, 1965; Gurin et al., 1960), maintaining health, pursuing

sports, and outside activities (Bradburn & Caplovitz, 1965; Fellows, 1966; Washburne, 1941; Watson, 1930), intelligence quotient (Fellows, 1966; Washburne, 1941), socioeconomic status (Beckham, 1929; Bradburn & Caplovitz, 1965), reduced marital tension (Bradburn & Caplovitz, 1965), and religiosity (Wilson, 1965). Wilson (1967) suggested that although these studies have yielded much data, some methodologies appear questionable. By validating happiness instruments and combining this with reliability tests, confidence in research conclusions would be improved. Wilson also suggested that little advancement in happiness theory had been offered in terms of explaining some of the happiness relationships.

Two of the major research studies reviewed by Wilson (1967) that warrant special mention are by Wessman (1957) and Wessman and Ricks (1966). Wessman (1957) studied happiness and adjustment and found three central indicators: supportive family relationships, job satisfaction, and successful social relationships. Wessman and Ricks (1966) studied characteristics of happy and unhappy men and found that happier men made more positive use of their time, planned long-range goals, made commitments to these goals, and tended to adequately estimate the time needed to complete tasks. Wilson (1967) attempted to replicate portions of these studies using a student population and found similar correlations between happiness and achievement needs.

Fordyce's Happiness Critique

Fordyce's (1972) review is divided into sections in which the concept of happiness as affective experience is defined. In his definition, happiness is equated with pleasant emotion(s), measurable as a singular construct or as a transcendent overall evaluation of emotional life.

Fordyce's (1972) tabling of correlates positively associated with happiness is grouped into sociability, employment, and life quality factors. All correlates, weak and/or moderate, are shown in his work. The following represent the highly important or the most important indicators of happiness. In the area of sociability, happiness correlates were supported among the following research studies: friendships (Barschak, 1951; Goldings, 1954; Gurin et al., 1960; Meltzer, 1966; Wall, 1948), social popularity for adolescent school girls (Iisager, 1948; Scott, 1967), marital satisfaction (Gurin et al., 1960; Landis, 1942; Wessman, 1957), love and affection among high school and college students (Hart, 1945; Iisager, 1948; Scott, 1967), positive family life (Cantril, 1965; Landis, 1942; Wessman, 1957), and positive family life related to early childhood memories (Barschak, 1951; Meltzer, 1966; Scott, 1967; Wall, 1948).

Happiness was found to be positively associated with employment of Cantril (1965), with work satisfaction related to employment (Cantril, 1965; Iisager, 1948; Landis, 1942), and with college student

life (Goldings, 1954).

Many correlates were found to be related to life quality, such as sufficient money (Cantril, 1965; Iisager, 1948; Landis, 1942; Wessman, 1957) as well as maintaining a decent standard of living, welfare, opportunities for children, and home, farm, or business ownership (Cantril, 1965). Other conditions included: contentment (Wessman, 1957), achievement (Scott, 1967), optimism (Lawton, 1943), self-development, morality, resolving ethical and religious problems (Cantril, 1965), having fun (Wessman, 1957), and maintaining good health (Cantril, 1965; Goldings, 1954; Gurin et al., 1960; Iisager, 1948; Landis, 1942; Lawton, 1943; Meltzer, 1966; Wessman, 1957). The final segment of Fordyce's review is devoted to studies in which the attempt was made to measure happiness as related to values which include: religious values (Hartmann, 1934), ways to live (Wilson, 1960), and sexual values (Wilson, 1965).

Arkoff's Happiness Critique

Arkoff (1975) provided a review of happiness literature relating the concept of psychotherapy and personal growth issues. Since most of the studies cited concern student populations, this review is focused upon happiness among young adults. Another feature of this review is that the occurrence of peak experiences (self-descriptions of happy moments) are presented in categorical fashion. Peak experiences are identified in other studies (Maslow, 1962; McClain & Andrews, 1969).

Arkoff (1975) suggested predominant correlates associated with happiness: wealth, health, education, employment, high status jobs, marriage, singlehood in comparison with being widowed or divorced, social relationships, leisure pursuits, high self-esteem, and personal competence. These were consistently identified in the research literature (Bradburn, 1969; Fellows, 1966; Robinson & Shaver, 1969; Wilson, 1967). Arkoff emphasized that the topic of happiness is worthy research area deserving of more attention in the psychotherapy world as a viable concern.

Summary

For the sake of comprehensiveness and breadth, this research was highlighted by examining major happiness research reviews. Although the lists were lengthy, the following indicators were consistently reappearing: employment, job satisfaction, good health, religion, and social relationships. Social relationships included one's spouse, family, and friends. Many correlates were indicative of personal qualities that related to happiness. These were self-esteem, positive functional feelings, pleasant childhood memories, social extroversion, contentment, the ability to love and give to others, future orientation, commitment toward goals, productivity, and self-actualization. Other correlates were related to economic factors such as property ownership and maintenance, income, wealth, and socioeconomic status.

Recent Studies

Diener's Happiness Critique

Diener (1984) reported that after Wilson's (1967) happiness research review, at least 700 happiness-related studies have been published. Provided in his review was an update on some of these correlates that have been identified with subjective happiness and on the most theoretical contributions.

In earlier studies, estimates of satisfaction with areas such as oneself, family life and standard of living were found to correlate highly with life satisfaction. Many of these remain in present research. Related to standard of living and income, a positive relationship was found to exist between having happiness and having wealth (Easterlin, 1974). Satisfaction with one's income has been supported throughout the literature (Alston, Lowe & Wrigley, 1974; Andrews & Withey, 1974; Bortner & Hultsch, 1970; Clemente & Sauer, 1976; Freudiger, 1980; Mancini & Orthner, 1980; Riddick, 1980). From these associations, Diener (1984) suggested that although happiness was reported to increase with income, once one's basic need levels were met, happiness didn't necessarily increase with income.

Since the mid 1970s, other demographic variables related to subjective happiness have emerged. In previous studies, young persons were found to be happier than older persons (Bradburn & Caplovitz, 1965; Gurin et al., 1960; Kuhlen, 1948; Wessman, 1957). Diener (1984) noted that some inconsistencies seemed to exist in measuring age dif-

ferences. He believed that one reason for these inconsistencies might
be that persons in each age group qualitatively interpretated happiness-
evolking situations.

Young people reported more joyful experiences; older persons may be
able to look at the quality of their entire life and form a positive
judgment. In many current studies the idea that there are some gender
differences when it comes to subjective happiness is still supported.
It has been suggested that there is a qualitative difference with women
experiencing more negative affects but greater joys than men (Braun,
1977; Cameron, 1975; Gurin et al., 1960), that young women are happier
than their male counterparts, and that older women appear to be less
happy than older men (Medley, 1980; Spreitzer & Snyder, 1974).

Relationships appear to be intertwined with other variables.
Employment remained strongly related to life satisfaction (Diener, 1984).
Related to education, some studies have suggested that the most positive
effects appear for women (Freudiger, 1980; Glenn & Weaver, 1981b;
Mitchell, 1976) while in other studies little significance was reported
when other variables were controlled. Campbell (1981) concluded that
the effects of education related to subjective happiness could simply
be that the process served to open doors to alternative ways of life,
acted as a resource, and raised an individual's life aspiration levels.
Religion was found to hold significance for individuals (Hadaway,
1978). As found in earlier studies, marriage and family satisfaction
were important or one of the most important, predictors of subjective

happiness (Campbell, Converse & Rodgers, 1976; Freudiger, 1980; Glenn & Weaver, 1979, 1981a; Michalos, 1980; Toseland & Rasch, 1979-1980).

Social contact also remained an important predictor of happiness. Its relationship to subjective happiness has been reported (Anderson, 1977; Campbell et al., 1976; Edwards & Klemmack, 1973; Falkman, 1973; Knapp, 1976; Markides & Martin, 1979; Mitchell, 1976; Olsen, 1980; Palmore & Luikart, 1972; Rhodes, 1980; Toseland & Rasch, 1979-1980; VanCoevering, 1974; Zeglen, 1977).

The experience of loving and having a satisfying love relationship has been documented in the literature (Anderson, 1977; Emmons, Larsen, Levine & Diener, 1983 (cited in Diener, 1984); Freeman, 1978; Forrester, 1980; Gordon, 1975), although, according to Diener (1984), the finer complexities of these relationships are still being explored. In general, these correlates appear to be strongly related to subjective happiness, similar to the importance of friendships, family relationships, and social contact.

Of any variable that has been listed, self-esteem is thought to be one of the most important predictors of subjective happiness. This finding has been well reported in the research literature (Anderson, 1977; Czaja, 1975; Drumgoole, 1981; Ginandes, 1977; Higgins, 1978; Kozma & Stones, 1978; Peterson, 1975; Pomerantz, 1978; Reid & Ziegler, 1980; VanCoevering, 1974; Wilson, 1960). Campbell et al. (1976) found self-esteem to be one of the highest correlations of any variable. Other personality variables such as locus of control, intelligence

quotient, and the effects of one's temperament are thought to be associated with happiness.

The final factor, health, is thought to be highly associated with happiness (Edwards & Klemmack, 1973; Larson, 1978; Markides & Martin, 1979; Near, Rice & Hunt, 1980; Ray, 1979; Riddick, 1980; Spreitzer & Snyder, 1974; Toseland & Rasch, 1979-1980; Zeglen, 1977). One speculation is that with good health, options to increase one's life satisfaction in many ways can be provided.

Diener (1984) suggested that while the volume of research has grown since the time of Wilson's (1967) review, more work is needed. Diener supported the idea that research studies must be founded on theoretical structures to better describe these influences. In many of these studies, the casual nature of these relationships remained unclear-- whether happiness is due to the direct influence of one's social skills and positive personality traits or is due to environmental circumstances in which a positive outlook on life is fostered. An additional possibility is that these forces covary in ways that are unique to each individual as well as to each group. To explore some of these parameters, such as the degree of linerity and covariance, several of the most current happiness theories are presented.

Happiness Theory

In early studies, happiness was often conceptualized within various sociological and psychological frameworks but was not well grounded in happiness theory (Wilson, 1967). Since his review, several

theories have been proposed. First, in some theories that are related to goal seeking, the suggestion is made that happiness is the result of successfully reaching one's goals in life (Wilson, 1967), fulfilling needs (Michalos, 1980), and fulfilling one's life plan (Chekola, 1975). Some researches suggested that it is not possible to ever completely fulfill one's needs and achieve total happiness. Needs appear to be cyclical in nature, with new ones appearing as old ones are met (Houston, 1981; Tatarkiewicz, 1976). In activity theory, the suggestion is made that happiness is the by-product of important activities and goals (Csikszentmihalyi, 1975). A third theory, the bottom-up theory, is suggestive that happiness is the basic result of many small pleasures which have cummulated from the bottom-up (Kozma & Stones, 1980). A fourth theory, the bottom-down theory, is based on the idea that a general attitude of happiness is experienced first and later is dispersed to positively influence the events one experiences in life in a positive manner (Andrews & Withey, 1974; Tatarkiewicz, 1976). Proponents of the bottom-up and bottom-down theoretical approaches continue to debate as to whether happiness should be conceptualized as a state or a trait. A fifth theory, associationistic theory, is based on cognitive appraisal. Happiness is related to the attributions people make about events happening to them (Schwartz & Clore, 1983) or associative networks in memory (Bower, 1981). In this theory happiness educational programs which emphasize cognitive reprogramming (Fordyce, 1977a; Kammann, 1983) would be included. A sixth theory type, judgment

theories, is related to the process of achieving happiness based on social comparison (Carp & Carp, 1982; Michalos, 1980) or adaptation from a past life perspective (Brickman, Coates & Janoff-Bulman, 1978; Parducci, 1968, 1982 (cited in Diener, 1984)). Another type of judgment theory is suggestive of happiness being related to aspirational level which is dependent upon the perception of the fulfilled versus total desires ratio formed. Diener (1984) suggested that the development of these theories would be enhanced by research supportive of the propositions espoused. So far, many of the theories have not received this treatment and would be enhanced by empirical analysis.

Finally, two theories that are most pertinent to this study are Multiple Discrepancies Theory (MDT) developed by Michalos (1986) and a two component theory of happiness developed by Veenhoven (1984a). A final approach, also pertinent to this study, was developed by Fordyce (1977a). In this, the role of cognitive reprogramming in seeking happiness is emphasized. Details of those theories follow.

Michalo's Multiple Discrepancies Theory

Michalos (1986) defined happiness as feelings and attitudes that were relatively long lasting and justified. This is in agreement with other conceptualizations (Tatarkiewicz, 1976; Veenhoven, 1984a). The Multiple Discrepancies Theory (MDT) was developed as a theory of satisfaction borrowing from other theories such as equity theory, cognitive dissonance theory, and person-environment theory. Basically,

Michalos postulated that net life satisfaction is the result of dis-
crepancies between what one has and what one wants out of life. At
least seven perceived discrepancies were measured on a seven-point,
Likert-type scale. The discrepancies are related to an individual's
life as a whole and how big the gaps are between what one currently
wanted, needed and expected in the past, like expectations in the
future, and/or how these were compared with others of similar age and
like circumstances. This theory has been applied to the aged,
university clerical, and rural community members (Michalos, 1983,
1986), and to undergraduate university students representing 23 uni-
versities and 23 countries. He (1986) stated that among students,
the two most influential variables regarding their satisfaction with
their education were self-wants and self-other wants. He suggested
that on the basis of MDT, well-founded information and a progressive
vision were the elements needed to assist others in moving away from
a dissatisfactory state of life to a more satisfactory one.

Veenhoven's Two Component Theory of Happiness

Veenhoven (1984a, p. 17) defined happiness as "The overall appre-
ciation of one's life as a whole." His conceptualization of happiness
and an extensive review of research literature were presented in
Condition of Happiness (Veenhoven, 1984a), and Data-book of Happiness
(Veenhoven, 1984b). In these volumes are detailed analyses of some 245
empirical studies of happiness which date from 1911 to 1975. Most
of the data are correlational studies in which 48 key variables,

two-thirds of which are considered statistically significant, are revealed. In the first volume is a listing of these studies. In the second volume the findings are presented. Veenhoven (1984a) provided his conceptualization of happiness and evaluated whether this conceptualization would be adequately measured by existing happiness measures.

Two happiness components are distinguished: hedonic level of affect and contentment. Hedonic level of affect is identified by Veenhoven as a composite description of the degree of one's pleasant affective experiences. Contentment is described as cognitive processes of appraising how well one's aspirations have been met. Veenhoven (1984a) analyzed these components and suggested that to gain a more complete picture of an individual's total happiness these cognitive and affective aspects would need to be combined. Overall happiness would be the result of this process, the combination of the individual's cognitive and affective dimensions (contentment and hedonic level of affect) as well as personality characteristics and environmental influences.

To measure these components, Veenhoven (1984a) suggested that questions related to the degree of pleasantness (hedonic level of affect) an individual experienced on a day by day basis should be asked. Aspiration level could be measured by content that is directed at how each individual effectively plans for the future, successfully attains goals, and utilizes existing talents. According to this theory, it is possible for the individual to experience variation and still

rate his or her overall happiness as generally high. For example, an indivíual might not enjoy his or her own working conditions, experiencing daily low hedonic level of affect, yet rate his or her own overall happiness high, as motivated by aspirations, family support, and other factors. Veenhoven suggested future research include: instrument development and validation, longitudinal and cross-cultural research, and the implementation of several types of analysis techniques.

Fordyce's Cognitive Approach to Happiness

Fordyce (1972) defined happiness as a subjective, emotional experience of happy well-being and has spent the last several years developing measures to test his hypothesis among community college students (1977, 1981, 1983, 1985). Based on the assumptions that happiness can be taught, increased knowledge and self-growth can occur, Fordyce (1977b) attempted to answer two questions. The first question was whether individuals, if taught happiness characteristics, could modify their lifestyles to become more like happy persons, and secondly, if this knowledge would actually result in permanent changes. Fordyce developed two self-report measures in conjunction with an education program, the Happiness Measures and the Psychap Inventory (1977b, 1985). The Happiness Measures consisted of two indices of perceived quality and quantity of one's emotional morale. The Psychap Inventory (1985) was written and used to provide a diagnostic measure of happiness-skills for those attending the fundamentals program. It also contained

subscales proported to measure personality, behavioral, and life-style domains of happiness.

Summary

Studies which measure happiness correlations and related theoretical concepts have been broadened since the mid-1970's. Employment, social contacts (including marriage and family relationships), and personal qualities such as self-esteem are three factors most strongly associated with subjective happiness. Michalos' (1980) Multiple Discrepancies Theory (MDT) related to the fulfillment of needs. Veenhoven (1984a,b) provided a review of empirical studies and presented a two-component conception of happiness. Fordyce (1977a) presented a cognitive approach to conceptualize the affective experience of happiness by assisting the individual to form more positive cognitions about life. All three have used their approaches with student populations. In the next part of the review, the available literature on the needs and perceptions of national and international college student is summarized briefly.

College Student Satisfaction

This section of the review concerns college students' satisfaction with various aspects of their academic and nonacademic experiences. The needs and satisfactions of international students will also be highlighted.

General Findings

In early studies assessing college students' satisfaction with their academic environments students were required to identify components of satisfaction or dissatisfaction (Bird, 1933; Gamelin, 1953 (cited in Taha, 1984); Wrenn & Bell, 1942). Large undergraduate samples were examined and satisfaction was found related to quality of instruction (Bird, 1933); personal inner qualities verses types of activities (Gamelin, 1953); and overcoming learning difficulties (Wrenn & Bell, 1942). Pervin (1967) found that student satisfaction was related to self-esteem and if rated on an "actual versus ideal" continuum, students with high levels of self-esteem reported increased satisfaction with their environments. Ernest (1966) also found that satisfaction was related to positive self-esteem in employed students who indicated high levels of job satisfaction. Self-congruence has been related to students' goal directedness and life purpose (Jenks, Kahane, Bobinski, & Piermarini, 1979) and other factors such as happiness, trust, and identity development (Constantinople, 1970).

Related to social contact, Schmidt and Sedlacek (1972) studied social patterns among students and found that satisfied students had fewer emotional concerns, more contacts with faculty, and fewer difficulties choosing a major. Aitken (1982) found peer relationships to be an important factor in students' successful residential adjustment, although over socializing was identified with problems concerning

academics. Successful social contacts and the need to meet a variety
of different people were explored in a study by Lokitz and Sprandle
(1976). They found that during their first year students' perceptions
were affected by their own social identity, residence, advisors,
faculty contacts, classes, and campus activities. Students' self-
esteem combined with positive experiences in these areas effected
overall academic satisfaction.

International Student Adjustment

An increasing interest has been found in the study of the college
environment as related to international students' perceptions,
academic adjustments, academic achievements (Baty & Dold, 1980;
Hamilton, 1980; Sharp, 1982), and attitudes toward life in the
United States in general (Selltiz, Christ, Havel & Cook, 1963). Taha
(1984) suggested that a student's common goal was to complete his or
her education while learning to accommodate and adjust to environmental
demands. This view has also been documented in other studies related
to students of specific nationalities such as: Chinese (Klein, Miller,
& Alexander, 1980; Leong, 1986) and Nigerian (Arubayi, 1981; Lever,
1983; Okwudishu, 1984).

International students' adjustment problems, needs, and satisfac-
tions have been addressed. Herbert (1981) suggested that students
receiving their early education based on a different educational model
often have adjustment difficulties with the United States system. They
appear to experience the greatest difficulties adjusting to their total

environment within the first six months (Arubayi, 1981; Si-Tayeb, 1982).
English proficiency (Brandywine, 1965), social alientation (Owie, 1982),
and financial problems (Lee, 1981; Okwudishu, 1984) were reported as
major adjustment concerns.

Lee (1981) explored needs and satisfactions among international
students in 30 universities and found that areas of greatest need were
identified as financial and educational. Areas of least need were
informational and academic. Students' greatest satisfaction was in ful-
filling their educational goals. They had the least satisfaction in
areas such as hopes of securing future employment and in maintaining
financial security.

Research pertaining to students' perceptions of their experiences
in the United States is suggestive that positive self-concept has a
direct relationship to academic performance (Mehrinfar, 1982) and that
perceptions vary with student's age, class level, country, and English
proficiency (Culha, 1974 (cited in Taha, 1984); Kim, 1983; Sharp, 1982).
Graduate students perceived fewer adjustment difficulties than under-
graduate students as their goals were focused primarily on academics
(Hull, 1978; Jammaz, 1973). These aspects appeared to have a different
impact on students depending upon their perceptions needs, year in
college, and reported satisfactions.

Summary

Satisfaction with college life has been the focus of studies among
national and international students at the undergraduate and graduate
levels. The research presented here is suggestive that the importance

of students' self-esteem as it has been related to the process of
overall adjustment and academic success is important. International
students who complete their educations in United States colleges and
universities must cope with additional adjustments. Overall indicators
such as high self-esteem, social contacts with a variety of different
persons, adequate financial resources, and the hope of future employ-
ment after graduation were related to high satisfaction in all groups.

Assessment of Happiness

Two main types of happiness measures have been reported in the
subjective happiness literature. Single item measures, the first type,
have been used extensively in large-scale survey research (Cantril,
1965; Gurin et al., 1960; Andrews & Withey, 1974). Multi-item measures,
the second type have been used with geriatric populations (Kozma &
Stones, 1980; Lawton, 1975; Morris & Sherwood, 1975; Neugarten,
Havighurst & Tobin, 1961; Wood, Wylie & Sheafor, 1969) to assess
affect (Bradburn, 1969; Campbell et al., 1976; Wessman & Ricks, 1966),
personality dimensions (Fordyce, 1985), and general happiness estimates
(Fordyce, 1977b). For the purpose of this review, the most commonly
reported single item and multi-item instruments, suitable for use with
student populations, will be reported. A commonly used measure of
college student satisfaction will also be reported and followed by a
brief summary.

Three single item measures have been used extensively: Cantril's
(1965) Self-Anchoring Ladder, The Gurin Scale, developed by Gurin

et al., (1960), and Andrews' and Withey's (1974) Delighted-Terrible

Scale. The Self-Anchoring Ladder is a self-report ladder picture with

rungs marked "0" to "10". Respondents mark one rung between the best

possible life "10" and the worst possible life "0." Responses are

indicative of how the subject is feeling at the present moment. The

Gurin Scale is a self-report question which asks respondents to rate

their general happiness in the present time frame with "very happy,

pretty happy, or not too happy". The Delighted-Terrible Scale is a

self-report question with "delighted" representing one end of the

scale and "terrible" representing the other end. Respondents are

asked to indicate how happy they are feeling about their life as a

whole.

Five multi-item measures have been used extensively: The Affect

Balance Scale (Bradburn, 1969), the Index of General Affect (Campbell

et al., 1976), the Elation Depression Scale (Wessman & Ricks, 1966),

the Psychap Inventory (Fordyce, 1985), and the Happiness Measures

(Fordyce, 1977b). The Affect Balance Scale consists of ten self-rated

statements. Subjects are asked to respond "yes" or "no" when consider-

ing their positive and negative affective experiences over a period of

time. The Index of General Affect is a ten-pair semantic differential

self-report scale. "Least favorable" to "most favorable" responses

are marked in consecutive order from one to ten. Individual mean values

are calculated. The Elation Depression Scale is a self-report daily

mood diary. Respondents are asked to rate the amount of depression,

happiness or unhappiness they experienced that day by checking one of
ten item statements. Total feelings of elation are represented at one
end of the scale while total feelings of depression and gloom are at
the other end.

The Psychap Inventory, an 80 item self-report measure, was
designed as a diagnostic personality instrument. Subjects circle one
dichotomous response per each 80-pair question group. Questions are
related to achieved personal happiness, happy personality, happiness
values, personal attitudes and happy lifestyle. Another instrument
developed by Fordyce (1977b) was the Happiness Measure, an 11-item
self-report scale of emotional morale. In this instrument, two aspects
of an individual's hedonic affect are measured: (1) the frequency of
experienced moods and (2) the intensity of experienced moods. These
two areas are combined to create a composite score of emotional
morale.

One instrument in which an attempt is made to deal with student
satisfaction and is somewhat related to happiness, although not
specifically perceived happiness, is The College Student Satisfaction
Questionnaire (CSSQ). This has been widely used since its inception
in the early 1970s (Betz, Klingensmith, & Menne, 1970). This is a
70-item self-report instrument in which five aspects of college life
are measured: (1) compensation, (2) recognition, (3) quality of
education, (4) social life, and (5) working conditions. Students use
a five-point Likert-type scale and answer each question with a range

of "very dissatisfied" to "very satisfied". Scores are summed and mean values calculated.

Summary

In this section of the review, several instruments designed to assess the affective and cognitive aspects of an individual's subjective happiness, were presented. Two types of instruments have been developed: (1) a single-item survey questionnaire, used mainly in large scale Social Indicators research, and (2) multi-item instruments, used in specific, comparative research projects. One measure of college student satisfaction was reported. Its dimensions were concerned with certain aspects of a college student's satisfaction with his or her academic environment. While related to life satisfaction, this instrument was not specifically developed to measure perceived happiness.

Summary

The approach of this review was to present the findings of several of the well known reviews of happiness literature written during the last twenty years. Many important studies were identified from the early part of this century to the present time, each involved in the growth and complexity inherent in happiness research. Several theories have been proposed in an attempt to describe the relationship parameters among happiness and several variables, as well as to define happiness as a state or a trait. This was followed with a review of research related to national and international college

student satisfaction. Since no known instruments could independently, or in combinations, be used to assess aspects related to the construct of perceived happiness among university students, a new instrument was developed by this researcher.

METHODOLOGY

The purpose of this study was to develop an instrument capable of
identifying sources of perceived happiness potentially related to a
university population. These sources of happiness would be measurable
in young adults, regardless of national origin. This process in-
volved the following steps: (1) hypothesizing apriori sources of
happiness, (2) developing an instrument, (3) conducting a pilot study,
(4) revising and developing the instrument, then (5) implementing the
main study and data analysis. The Actual and Ideal Happiness Scale
(AIHS) was the result of this process and used in the main study.
This chapter will identify the subjects used, then focus on the incep-
tion of an instrument, outlining its development and modification
through the pilot and main studies. The final segments will identify
how the data were collected and analyzed for the pilot and main studies.

Subjects

The subjects in this study were all Iowa State University students
representing undergraduate and graduate level classifications and
various ethnic backgrounds. A total of 831 students participated.
Specifically, a total of 301 male and female subjects participated in
the pilot study; 182 of them were enrolled in introductory education
courses while the remaining 119 were enrolled in introductory psychology
courses. The sample consisted of 134 males and 167 females. All
represented various undergraduate majors and were of North American
nationality. A total of 530 subjects, 323 North American and 207

international students participated in the main study. Specifically, the North American group consisted of 119 males and 204 females with at least 90% of the group of undergraduate level classification. The International group consisted of 147 males and 49 females with at least 79% of the group, of graduate level classification. All of the students were enrolled during the 1986-1987 academic year and were selected primarily due to their groups' accessibility to the investigator.

Instrument Development

Pilot Study

Steps were taken to develop an instrument capable of assessing five hypothesized dimensions of happiness: future aspirations, physical attractiveness, interpersonal relationships, sharing with others, and creative pursuits. These factors were based on correlates positively associated with happiness that were identified in the research literature. A pool of 66 items was written which were thought to be related to the five identified happiness factors and measure students current perceptions of happiness. This instrument was administered to graduate classes for evaluation. It was later sent out for evaluation to six noted researchers in the field of happiness and life satisfaction, four researchers in the field of cross-cultural education, and seven researchers at Iowa State University (see Appendix A and B). The instrument was revised and expanded in accordance with the evaluators comments (see Appendix C).

The pilot study instrument was administered to 301 Iowa State

University undergraduate students. A least squares factor analysis procedure was applied to the responses. Following the factor extraction, the factors were rotated with a varimax solution.

As shown in Appendix D, four factors were identified. Factor one contained the following five items: "13. Being a good friend to others", "10. Having one or more close friends", "60. Helping others", "56. Being sensitive toward others needs", "24. Spending time with one or more close friends"." This factor was labeled Social relationships. The Spearman Brown estimate of internal consistency was .83.

The second factor contained four items: "8. Being satisfied with my physical appearance", "6. Feeling satisfied with my body shape and size", "5. Having others consider me an attractive person", "43. Thinking that I am sexually appealing". This factor was labeled Physical attractiveness and its Spearman Brown estimate of internal consistency was .78.

The third factor, Assisting others, contained three items: "36. Caring for children", "37. Spending time with children", and "23. Teaching others new skills". The Spearman Brown estimate of internal consistency was .70.

The final factor, labeled Desire for learning, contained four items: "47. Learning new things", "38. Solving work or school-related problems", "54. Writing, related to academic and/or other areas", and "63. Obtaining knowledge by reading". The Spearman Brown

estimate of internal consistency was .62.

Items which did not load on factors were dropped and new items were added in order to investigate further aspects thought to be related to a student's happiness such as life goal orientation and the desire to maintain one's health.

Main Study

The revisions on the pilot study instrument resulted in the development of the "Actual and Ideal Happiness Scale" which was condensed to a thirty item format (see Appendix E). Each item was selected because it appeared to load highly in the pilot study factor analysis and because it was potentially identified with happiness in the research literature. To add to the construct definition of students' perceived happiness students were asked to respond to each item in two ways. First, by how each item would contribute to their perception of actual happiness and second, by how each item would contribute to their perception of ideal happiness. To control for response bias, one-fourth of the items were written in a reverse response direction.

The AIHS was administered to a total of 530 undergraduate and graduate level ISU students during the Spring, 1987 semester. The sample was divided into two groups, 323 North American students and 207 International students. Since four a priori factors were predicted, a sample of at least 240 subjects per group would have been most desirable.

To control for irrelevant sources of variance on the pilot and

main study instruments, the response format (1-99) and probit trans-
formation procedures were used on 66 items and 30 item revisions as
suggested by Liu (1971), Wolins (1982), and Wolins and Dickinson
(1973). On the pilot study instrument students were asked to indicate
the extent to which each of the 66 items would or would not sub-
stantially contribute to their current happiness. This format was
modified on the main study instrument. Students were asked to indicate
the extent to which each of the 30 items presently contributed to
their happiness (actual happiness) and how much they wanted these items
to contribute to their happiness (ideal happiness). If they were
uncertain or neutral about their response, they were to write "50".
The response range included whole numbers from 1-99. Since the responses
to these instruments depended on subjects' self-reports, the response
biases of social desirability and faking were considered. To control
for these sources of bias, students were informed of the purpose of
the study and the importance of their responding honestly. Any identi-
fying information such as student names, classes, or addresses were
not included on the instrument so that their responses would be kept
confidential (see Appendix F).

<div align="center">Data Collection</div>

The Iowa State University Committee on the Use of Human Subjects
in Research reviewed this project and concluded that the rights and
welfare of the human subjects were adequately protected, that risks
were outweighed by the potential benefits and expected value of the

knowledge sought, that confidentiality was assured and that informed

consent was obtained by appropriate procedures. A copy of this

approved proposal was submitted to the assistant director of the ISU

International Education Services, whose cooperation made data collec-

tion among the international student groups possible.

Pilot Study

A total of 301 undergraduate North American students participated

in the pilot study. The collection of data among these groups was

handled by distributing instruments to various introductory psychology

and education courses. Of the 301 subjects who participated, the

return rate was 95%.

Main Study

The collection of data among the American student groups was

handled by distributing instruments to various education and psychology

undergraduate classes. Of the 323 North American subjects who partici-

pated, the return rate was 98%.

The collection of data among the International students groups

involved a different procedure as it was not possible to collect among

groups of International students who were concentrated in classroom

settings. Group leaders representing 49 international campus organi-

zations were contacted and 29 agreed to participate in the data collec-

tion process (see Appendix G). This investigator met with each group

leader by correspondence, phone contact and meeting, explained the

purposes of the study, assurance of confidentiality, and procedures

for returning completed surveys. Of the 850 surveys distributed in this manner, 207 were returned, for a return rate of 24%.

The directions for data collection included handling the instruments and directions for the subjects. Information included on all instruments included the purpose of the study and an explanation of the response format. The subjects were informed of the importance of their responding honestly, the confidentiality of their responses and that participation in the study was completely voluntary.

Data Analysis

Data analysis procedures were conducted for the pilot and main studies. In the pilot study, the purpose of the data analysis was to determine which items would cluster according to the hypothesized factors, to the extent that they were interpretable. In the main study, the purpose of the data analysis was expanded to three parts: (1) to determine if the 30 items on the AIHS would cluster on hypothesized dimensions related to students' perceptions of happiness, regardless of national origin, (2) to determine if cross-national differences emerged among North American and International groups, and (3) to determine if differences existed for individuals on their "actual" verses "ideal" item responses. To accomplish this purpose the data were analyzed using procedures according to the Statistical Analysis System (Statistical Analysis System Institute, 1982).

Pilot Study

Data for the pilot study were transformed to standard scores using the computer program PROBIT prior to the factor analysis. Next, the transformed scores were correlated using the program PROC CORR. The factors were extracted using a Least Squares procedure iterating for communalities using the computer program PRINIT. Using the N Factor criterion, thirty factors were extracted.

A range of factors to rotate was indicated by inspecting the pattern of latent roots. To determine the number of factors to rotate two methods were used. The first method involved using the scree test as advocated by Cattell (1966). The results of the factor extraction were listed from the greatest values over 1.00 to the least values under 1.00. A break in the latent root pattern, as suggested by Wolins (1982) was used to determine the minimum number of factors to rotate. A second method was to look at eigen values and eliminate those under 1.00.

The factors were rotated using a varimax procedure. The procedure was applied because it maximized the sum of variances of the squared factor loadings. Starting with the largest solution working backwards to the smallest solution, the rotated factor with the smallest variance was evaluated. The factor was considered interpretable when items contained reflected conceptual similarity. It was then selected.

Main Study

Data for the main study involved four separate factor analysis procedures for the North American and International students' "Actual" responses and their "Ideal" responses. The methodology was the same as identified in the pilot study factor analysis. The data were transformed to standard scores, correlated, and thirty factors were extracted on each. The scree test and eigen value procedure were used. Factors were rotated using a varimax procedure and selected based on the same criterion as identified in the pilot study data analysis.

In order to further investigate items which differentiated between cultures and sexes individual item differences were contrasted among American and International males and females. The statistical procedures used were recommended by Wolins (1982). In order to determine if five student groups differed significantly on any of the AIHS items five dummy variables were constructed contrasting: (1) North American with International students, (2) males with females, (3) North American males with International males, (4) North American females with International females, and (5) North American males and females. These dummy variables served as artificial variables used to denote the classification of the observations on the AIHS items (Brown, 1976). Each of the AIHS items was then correlated with the dummy variable (Statistical Analysis System Institute, 1982). To reduce the chances that such a large number of probabilities would be significant due to chance alone, a conservative level of significance ($p < .001$) was employed.

A final procedure involved determining the significance of individuals' item differences between the "actual" and "ideal" components of each AIHS question. A series of paried T-tests were computed to determine the differences among: (1) North American students, (2) International students, (3) North American males, (4) North American females, (5) International males, and (6) International females. Again, to reduce the chance that such a large number of probabilities would be significant due to chance alone, a conservative level of significance ($p < .001$) was employed.

RESULTS

The purpose of this study was to develop an instrument capable
of identifying sources of perceived happiness potentially related to
a university student population. The pilot study instrument data
analysis was conducted to determine which items would cluster accord-
ing to hypothesized factors. THE AIHS, used in the main study, was
based on these hypothesized factors and was developed for the purpose
of having subjects respond to item statements based on how much each
contributed to their actual or ideal perception of happiness. Similar
to the pilot study instrument, the same response scale was used, con-
trolling for response bias was maintained as well as subjects' con-
fidentiality. The main study data analysis was devised to explore the
following questions: (1) to determine if the 30 AIHS items would
cluster on hypothesized dimensions, regardless of student's national
origin, (2) to determine if cross-national differences emerged among
North American and international groups by mean score comparisons,
and (3) to determine if differences eixsted among individuals on their
"actual" verses "ideal" item responses by paired t-tests. This
chapter will present subjects' demographic data, results of the American
and international groups' factor analysis on their "actual" and "ideal"
responses, results of the item contrasts among the various groups, and
results of the "actual" verses "ideal" paired t-tests among individuals
in each group.

Demographic Data

Demographic data for the American males and females and the international male and female groups are presented in Tables 1 and 2. Each table displays the characteristics of each group according to age, marital status, year in college, community size of origin, Iowa State University attendance, college in major, shared living quarters, highest level of education completed by the family main income earner, time spent pursuing leisure activities, and grade point average. On the international male and female groups, two additional variables were available; time spent in the United States and nationality. The characteristics of each group will now be highlighted by displaying percentages.

American Males and Females

Demographic data on the American males and females are presented in Tables 1 and 2. A total of 119 males and 204 females who participated in the main study. The most frequent percentage reported for age was 22 years for males and 21 years for females. A large majority of these subjects were single; 89% for males and 92% for females. The most frequent percentage reported for year in college on both groups was the senior classification. Over 50% of these students resided in off-campus housing. American males reported a community size of origin of 10,000 to 49,000 most frequently. The most frequently reported community size of origin for females was also 10,000 to 49,000. On each group, almost 50% had attended Iowa State University a total

of 1 to 11 months. In terms of the college representing the major

field of study, males' majors tended to vary among five of the eight

colleges while almost half of the females were education majors. Males

most frequently tended to share living quarters with two or more

persons, while females most frequently shared living quarters with one

person. At least 65% of the American males and 66% of the American

females reported that the highest level of educational attainment of

the family main income earner was completion of a baccalaureate degree

at a college or university. At least 25% of the males and 22% of the

females reported that the next highest level of income obtained was a

secondary school diploma. The majority of the remaining percentage for

both groups was accounted for by the family main income earner obtain-

ing vocational school training. Each group estimated that their

present G.P.A. fell within the 2.00 - 2.99 category and most frequently

spent up to twenty hours per week pursuing lesiure activities.

Insert Tables 1 and 2 about here

International Males and Females

Demographic data on the international males and females are pre-

sented in Tables 3 and 4. There were 147 males and 59 females who

participated. The most frequent percentage reported for age on both

groups was 23 years or more. At least 63% of the males were single

while 58% of the females reported being single. Both groups reported

the graduate classification most frequently in terms of their year in

college. Over 50% of these students resided in on-campus housing.
Each group most frequently reported a community size of origin of
300,000 or more. International males' attendance at Iowa State
University was diversely spread but the most frequently reported
percentage of attendance was between 24 to 35 months. Females' most
frequently reported percentage of attendance was between 1 to 11
months. The most frequent college in the major field of study was
engineering for males, science and humanities for females, although
three to four colleges were represented for each group. Males shared
living quarters with two or more persons; females most frequently
shared living quarters with one person. At least 67% of the interna-
tional males and 73% of the international females reported that the
highest level of education attainment of the family main income earner
was completion of a baccalaureate degree at a college or university.
This was followed by at least 16% of the international males and 12%
of the international females reporting that the family main income
earner had obtained a secondary school diploma. The next most
frequently reported categories, similar to the American groups, was
the international students' main income earner obtaining vocational
training. Each group estimated that there present G.P.A. fell within
the 3.00 - 3.99 category and most frequently spent between one to
nine hours per week pursuing leisure activities.

Insert Tables 2 and 3 about here

Some differences emerged among each group. In the American group, male and female subjects were more evenly distributed to total number and tended to be younger than their international counterparts. Each group reported single marital status most frequently. American males and females most frequently reported being in the senior level classification compared to international students who most frequently reported being in the graduate level classification. A majority of American students resided off campus while international students resided on-campus. The American male group, as well as the International male and female groups came from community sizes of origin over 300,000 or more in population. American students most frequent percentage of Iowa State University attendance averaged one year compared to international students' attendance of one to three years. American females had the highest percentage of majors in one college, education, followed by international males, whose college was engineering. Almost all of the other colleges were represented in this study. In each group, males most frequently shared living quarters with at least two persons; females shared with one person. Both American and international groups reported that the family main income earner had earned at least a baccalaureate degree from a college or university followed by a secondary school diploma. American students' G.P.A.'s were a full point lower than the international students. American students frequently reported up to twenty hours of time spent per week pursuing leisure activities while international students reported up to ten hours per week spent on leisure activities.

Factor Analysis

Actual Happiness Items

In both the American and international groups, seven factors
were extracted using a Least Squares procedure on their AIHS "actual"
item responses. The eigen values for each of the seven factors for
the American group and international groups' "actual" happiness items
are shown in Table 5. For the American group, the magnitude of change
between the successive latent roots of Factors 3 and 4 was .27, and
the latent roots began to level off at Factor 6. Therefore, the range
of factors that were rotated was from three to five factors. In the
international group, the magnitude of change between the successive
latent roots of Factors 5 and 6 was .34, and the latent roots began
to level off at Factor 7. Therefore, the range of factors that were
rotated was from three to six factors.

Insert Table 5 about here

The factors were rotated using a varimax (orthogonal) rotation.
In both the American and international groups, factor four of the fourth
rotated factor matrix was interpretable by this author. Therefore,
four factors for each group were retained. The rotated factor matrix
for the American group and the international group are shown in Tables
6 and 7.

Insert Tables 6 and 7 about here

For the American students, the four factors accounted for 12.91%
of the variance of the responses to the instrument. Percentages of the
variance accounted for were as follows: Factor 1 = 3.60%, Factor 2 =
3.30%, Factor 3 = 3.04%, and Factor 4 = 2.96%. For the international
students, the four factors accounted for 12.49% of the variance of the
reponses to the instrument. Percentages of variance accounted for
were as follows: Factor 1 = 4.31%, Factor 2 = 3.05%, Factor 3 = 2.71%,
and Factor 4 = 2.42%.

Items were retained if they loaded on only one factor. Items
with low factor loadings were dropped from the factors so that a maximum
reliability estimate for each factor would be obtained. The Spearman
Brown estimate of internal consistency was used for each factor. The
items retained for the American and international group and their cor-
responding Spearman Brown estimates were presented in Tables 8 and 9.

Insert Tables 8 and 9 about here

For the American student group, four factors were identified.
Factor 1 was labeled Goal Striving and contained the following: "24.
Thinking about current academic and/or professional goals", "26.
Making time to think about current academic and/or professional goals",
"16. Spending time thinking about future goals in life", "18.
Developing plans to achieve my goals", "1. Thinking about goals that
I would like to achieve". The Spearman Brown estimate of internal
consistency was .82. Factor 2, labeled Physical Appearance, contained

four items: "10. Feeling satisfied with my body shape and size", "2. Feeling satisfied with my physical appearance", "3. Being sexually appealing to others", and "12. Being concerned about my physical appearance". The Spearman Brown estimate of internal consistency was .82. The third factor contained three items: "23. Being a good friend to others", "14. Spending time with one or more close friends," and "20. Having a good relationship with one or more parent". Labeled Social Relationships, the Spearman Brown estimate of internal consistency was .68. The fourth factor, labeled Assisting Others, had three itesm: "11. Spending time with children", "4. Caring for children", and "5. Teaching others new skills". The Spearman Brown estimate of internal consistency was .79.

Four factors were also identified for the international student group. Factor 1, labeled Goal Striving, consisted of five items: "16. Spending time thinking about future goals in life", "18. Developing plans to achieve my goals", "26. Making time to think about current academic and/or professional goals", "28. Learning new things", and "7. Obtaining knowledge by reading". The Spearman Brown estimate of internal consistency was .74. The second factor, Physical Appearance, contained four items" "2. Feeling satisfied with my body shape and size", "10. Feeling satisfied with my physical appearance", "3. Being sexually appealing to others", and "22. Being concerned about my physical appearance. The Spearman Brown estimate of internal consistency was .67. Social Relationships, the third

factor, contained four items: "23. Being a good friend to others", "14. Spending time with one or more close friends", "15. Investing effort into my personal relationships", and "19. Feeling accepted by others". The Spearman Brown estimate of internal consistency was .67. The fourth factor identified as Assisting Others, consisted of three items: "4. Caring for children", "11. Spending time with children", and "21. Volunteering to help those in need". The Spearman Brown estimate of internal consistency was .65.

For each group, certain items emerged on each "actual" factor analysis. Related to Goal Striving were items 16, 18, and 26. Related to Physical Appearance, all items emerged similarly for each group. Related to Social Relationships, items 14 and 23 emerged on each group. On Assisting Others, two items emerged, 4 and 11.

Ideal Happiness Items

In both the American and international groups, seven factors were extracted using a Least Squares procedure on their AIHS "ideal" item responses. The eigen values for the American and international groups' "ideal" happiness items are shown in Table 10. For the American group, the magnitude of change between the successive latent roots of Factors 4 and 5 was .45, and the latent roots begin to level off at Factor 6. Therefore, the range of factors that were rotated was from three to five factors. In the international group, the magnitude of change between the successive latent roots of Factors 5 and 6 was .22 and the latent roots began to level off at Factor 7. Therefore, the range of factors that were rotated was from three to five factors.

Insert Table 10 about here

Similar to the "actual" happiness factor analysis, the factors were rotated using a varimax (orthogonal) rotation. In both the American and international groups, factor four was interpretable by this author. Four factors for each group were retained. The rotated factor matrix for the American group and the international group are shown in Tables 11 and 12.

Insert Tables 11 and 12 about here

For the American students, the four factors accounted for 13.14% of the variance of the responses to the instrument. Percentages of the variance accounted for were as follows: Factor 1 = 4.12%, Factor 2 = 3.72%, Factor 3 = 3.15%, and Factor 4 = 2.15%. For the international students, the four factors accounted for 12.12% of the variance of the responses to the instrument. Percentages of the variance accounted for were as follows: Factor 1 = 3.60%, Factor 2 = 2.96%, Factor 3 = 2.82%, and Factor 4 = 2.74%.

Similar to the "actual" item responses, items were retained if they loaded on one factor. Items with low factor loadings were dropped so that a maximum reliability estimate for each factor would be obtained. The Spearman Brown estimate of internal consistency was used for each factor. The items retained for the American and international group and their corresponding Spearman Brown estimates are

presented in Tables 13 and 14.

Insert Tables 13 and 14 about here

For the American student group, four factors were identified.
Factor 1 was labeled Physical Attractiveness and contained the follow-
ing: "10. Feeling satisfied with my physical appearance", "3. Being
sexually appealing to others", "2. Feeling satisfied with my body
shpae and size", "22. Being concerned about my physical appearance",
"27. Evaluating others' opinions about my attractiveness". The
Spearman Brown estimate of internal consistency was .80. The second
factor was labeled Social Relationships and contained the following
items: "23. Being a good friend to others", "14. Spending time with
one or more close friends", "15. Investing effort into my personal
relationships", "20. Having a good relationship with one or more
parent", and "13. Assisting others to meet their needs". The
Spearman Brown estimate of internal consistency was .71. The third
factor was labeled Goal Striving and contained the following three items:
"26. Making time to think about current academic and/or professional
goals", "7. Obtaining knowledge by reading", and "29. Writing,
related to academic and/or other areas". The Spearman Brown estimate
of internal consistency was .58. The fourth factor was labeled Assist-
ing Others and consisted of the following two items: "11. Spending
time with children" and "4. Caring for children". The Spearman Brown
estimate of internal consistency was .70.

For the international student group, four factors were identified.
Factor 1 was labeled Social Relationships and consisted of the following
four items: "23. Being a good friend to others", "19. Feeling
accepted by others", "17. Solving personal problems", and "14.
Spending time with one or more close friends". The Spearman Brown
estimate of internal consistency was .64. Three items were identified
in the second factor labeled Goal Striving: "26. Making time to think
about current academic and/or professional goals", "24. Thinking
about current academic and/or professional goals", and "16. Spending
time thinking about future goals in life". The Spearman Brown estimate
of internal consistency was .66. The third factor, Assisting Others,
contained the following three items: "4. Caring for children", "11.
Spending time with children", and "5. Teaching others new skills".
The Spearman Brown estimate of internal consistency was .72. The
fourth factor was labeled Physical Attractiveness and contained the
following itesm: "2. Feeling satisfied with my body shape and size",
"3. Being sexually appealing to others", "10. Feeling satisfied with
my physical appearance", and "27. Evaluating others' opinions about
my attractiveness". The Spearman Brown estimate of internal con-
sistency was .72.

For each group, certain items emerged on each "ideal" factor
analysis. Related to Physical Attractiveness were items 10, 3, 2, and
27. Related to Social Relationships were items 23 and 14. One item
was related to Goal Striving, item 26, among the American and interna-

tional analysis. Related to the fourth factor <u>Assisting Others</u> were items 4 and 11.

Item Contrasts

Actual Item Contrasts

Several of the "actual" AIHS items significantly differentiated between the contrasted groups at the $p < .001$ level. The AIHS item mean score comparisons of the American and international groups are shown in Table 15. The American group scored significantly higher than the international group on items 3, 14, 22, 23, and 25; and significantly lower on items 7, 12, and 29.

Insert Table 15 about here

The AIHS item mean score comparisons of the male and female groups are shown in Table 16. The females scored significantly higher than the male group on all items 23, 15, and 14.

Insert Table 16 about here

The AIHS item mean score comparisons of the American and international male groups are shown in Table 17. The American male group scored significantly higher than the international male group on item 22 and significantly lower on items 12 and 7.

Insert Table 17 about here

The AIHS item mean score comparisons of the American and interna-

tional female groups are shown in Table 18. The international female group scored significantly higher than the American female group on item 7.

Insert Table 18 about here

The AIHS item mean score comparisons of the American male and female groups are shown in Table 19. The American female group scored significantly higher on item 23.

Insert Table 19 about here

No items were found to be significant between the international male and female groups.

Ideal Item Contrasts

Several of the "ideal" AIHS items significantly differentiated between the contrasted groups. These items were found to be significant at the $p < .001$ level. The AIHS item mean score comparisons of the American and international groups are shown in Table 20. The American group scored significantly higher than the international group on items 23, 15, and 14; and significantly lower on items 29, 7, 6, and 3.

Insert Table 20 about here

The AIHS mean score comparisons of the male and female groups are shown in Table 21. The females scored significantly higher on all items: 23, 20, 15, 14, 13, and 8.

53

Insert Table 21 about here

The AIHS mean score comparisons of the American and international
male groups are shown in Table 22. The international male group
scored significantly higher in all items: 29, 21, 11, 7, and 6.

Insert Table 22 about here

The AIHS mean score comparisons of the American and international
female groups are shown in Table 23. The international female group
scored significantly higher on both items: 29 and 7.

Insert Table 23 about here

The AIHS mean score comparisons of American male and female groups
are shown in Table 24. The American female group scored significantly
higher on all ten items: 28, 21, 20, 17, 16, 15, 13, 11, 8, and 6.

Insert Table 24 about here

No items were found to be significant among international male
and female groups.

T-Tests

In all groups, individuals' differences between their "actual"
and "ideal" responses were assessed by a series of paired t-tests. The
purpose of the t-tests were to determine if significant discrepancies
existed between how much each item contributed to the individual's

"actual" happiness verses "ideal" happiness. For each group, individuals' discrepancies between these two constructs were significant at the $p < .001$ level on most of the AIHS items. Of these significant items, all of the "ideal" means were found to be greater than the "actual" means. These t-tests will now be examined.

American T-Tests

Paired t-tests for the American subjects are shown in Table 25. Out of thirty AIHS items, one item was not significant, item 27.

Insert Table 25 about here

International T-Tests

Paired t-tests for the international subjects are shown in Table 26. Out of thirty AIHS items, all were found to have significant mean differences.

Insert Table 26 about here

American Male T-Tests

Paired t-tests for the American male subjects are shown in Table 27. Of the thirty AIHS items, three items were not significant: 19, 22, and 27.

Insert Table 27 about here

International Male T-Tests

Paired t-tests for the international male subjects are shown in Table 28. Out of thirty AIHS items, one item was not significant,

item 27.

Insert Table 28 about here

American Female T-Tests

Paired t-tests for the American female subjects are shown in Table
29. Out of thirty AIHS items, two items were not significant: 19 and
22.

Insert Table 29 about here

International Female T-Tests

Paired t-tests for the international female subjects are shown in
Table 30. Out of thirty AIHS items, five items were not significant:
2, 3, 12, 22, and 27.

Insert Table 30 about here

Summary

To analyze the AIHS data for the American and international groups,
three procedures were identified: factor analysis, mean score compari-
sons and paired t-tests. Factor analysis was used to determine which
items would cluster according to the a priori hypothesized factors iden-
tified in the research literature. Mean score comparisons were used to
determine which AIHS item responses significantly differed among groups'
sex and culture on the "actual" and "ideal" happiness dimensions. The
final procedure involved a series of paired t-tests per individual
assessing differences in "actual" verses "ideal" responses. All items
were measured at the $p < .001$ level of significance.

Table 1. Demographic percentages on the American male group (n = 119)

Variable	%	Variable	%
Age:		Community size of origin:	
18 years	4	less than 1,000	14
19 years	11	1,000 to 4,999	17
20 years	20	5,000 to 9,999	12
21 years	20	10,000 to 49,999	21
22 years	23	50,000 to 99,999	14
23 or more years	22	100,000 to 299,999	13
		300,000 or more	7
		Varied in life	2
Marital status:		Attendance at I.S.U.:	
Single	89	1 to 11 months	48
Married	10	12 to 23 months	12
Separated	--	24 to 35 months	16
Divorced	1	36 to 47 months	15
Widowed	--	48 or more months	9
Year in college:		College in major:	
Freshman	11	Agriculture	13
Sophomore	19	Business administration	11
Junior	26	Design	2
Senior	43	Education	31
Graduate	--	Engineering	20
Undeclared	--	Home Economics	2
Special student	1	Science and humanities	20
		Veterinary medicine	1
Residing in I.S.U. housing:		Shared living quarters:	
I.S.U. housing	40	None	9
Non I.S.U. Housing	60	One person	38
		Two or more persons	53
Highest level of education completed by the main income earner:		Time spent pursuing leisure activities per week:	
Unknown	1	1 to 9 hours	40
Elementary K-8	2	10 to 19 hours	32
Secondary 9-12	25	20 to 29 hours	20
Vocational 1-4	7	30 to 39 hours	3
College/university	65	40 to 49 hours	2
		50 or more hours	3

Table 1. (continued)

Variable	%	Variable	%
Present G.P.A.:			
.00 to .99	--		
1.00 to 1.99	4		
2.00 to 2.99	64		
3.00 to 3.99	31		
Unknown	1		

Table 2. Demographic percentages on the American female group (n = 204)

Variable	%	Variable	%
Age:		**Community size of origin:**	
18 years	7	less than 1,000	14
19 years	17	1,000 to 4,999	21
20 years	22	5,000 to 9,999	19
21 years	28	10,000 to 49,999	25
22 years	16	50,000 to 99,999	10
23 or more years	10	100,000 to 299,999	6
		300,000 or more	4
		Varied in life	1
Marital status:		**Attendance at I.S.U.:**	
Single	92	1 to 11 months	49
Married	6	12 to 23 months	18
Separated	--	24 to 35 months	12
Divorced	2	36 to 47 months	19
Widowed	--	48 or more months	2
Year in college:		**College in major:**	
Freshman	14	Agriculture	3
Sophomore	24	Business administration	15
Junior	28	Design	3
Senior	32	Education	47
Graduate	2	Engineering	1
Undeclared	--	Home Economics	13
Special student	--	Science and humanities	18
		Veterinary medicine	--
Residing in I.S.U. housing:		**Shared living quarters:**	
I.S.U. housing	48	None	2
Non I.S.U. housing	52	One person	54
		Two or more persons	44
Highest level of education completed by the main income earner:		**Time spent pursuing leisure activities per week:**	
Unknown	1	1 to 9 hours	37
Elementary K-8	2	10 to 19 hours	38
Secondary 9-12	22	20 to 29 hours	17
Vocational 1-4	9	30 to 39 hours	4
College/university	66	40 to 49 hours	3
		50 or more hours	1

Table 2. (continued)

Variable	%	Variable	%
Present G.P.A.:			
.00 to .99	--		
1.00 to 1.99	1		
2.00 to 2.99	51		
2.00 to 3.99	45		
Unknown	3		

Table 3. Demographic percentages on the international male group
(n = 147)

Variable	%	Variable	%
Age:		**Community size of origin:**	
18 years	1	less than 1,000	3
19 years	1	1,000 to 4,999	4
20 years	3	5,000 to 9,999	3
21 years	9	10,000 to 49,999	10
22 years	7	50,000 to 99,999	3
23 or more years	79	100,000 to 299,999	5
		300,000 or more	56
		Varied in life	16
Marital status:		**Attendance at I.S.U.:**	
Single	63	1 to 11 months	25
Married	37	12 to 23 months	18
Separated	--	24 to 35 months	29
Divorced	--	36 to 47 months	12
Widowed	--	48 or more months	16
Year in college:		**College in major:**	
Freshman	1	Agriculture	18
Sophomore	7	Business administration	5
Junior	11	Design	2
Senior	10	Education	5
Graduate	69	Engineering	40
Undeclared	--	Home Economics	2
Special student	2	Science and humanities	28
		Veterinary medicine	--
Residing in I.S.U. housing:		**Shared living quarters:**	
I.S.U. housing	60	None	18
Non I.S.U. housing	40	One person	41
		Two or more persons	41
Highest level of education completed by the main income earner:		**Time spent pursuing lesiure activities per week:**	
Unknown	5	1 to 9 hours	48
Elementary K-8	7	10 to 19 hours	31
Secondary 9-12	16	20 to 29 hours	16
Vocational 1-4	5	30 to 39 hours	5
College/university	67	40 to 49 hours	--
		50 or more hours	--

Table 3. (continued)

Variable	%	Variable	%
Present G.P.A.:		Nationality:	
.00 to .99	--	Africa	2
1.00 to 1.99	1	British Isles	1
2.00 to 2.99	13	Central America	2
3.00 to 3.99	72	East Asia	28
4.00	5	IndoChina	7
Unknown	9	Mexico	2
		South America	3
Time spent in the United States:		Southeast Asia	22
		Southern Asia	24
1 to 11 months	21	Southwest Asia	8
12 to 23 months	15	West Indies	1
24 to 35 months	27		
36 to 47 months	13		
28 or more months	24		

Table 4. Demographic percentages on the international female group
          (n = 59)

Variable	%	Variable	%
Age:		**Community size of origin:**	
18 years	2	less than 1,000	7
19 years	5	1,000 to 4,999	3
20 years	5	5,000 to 9,999	5
21 years	7	10,000 to 49,000	9
22 years	3	50,000 to 99,999	7
23 or more years	78	100,000 to 299,999	7
		300,000 or more	45
		Varied in life	17
Marital status:		**Attendance at I.S.U.:**	
Single	58	1 to 11 months	36
Married	42	12 to 23 months	23
Separated	--	24 to 35 months	26
Divorced	--	36 to 47 months	9
Widowed	--	48 or more months	6
Year in college:		**College in major:**	
Freshman	5	Agriculture	18
Sophomore	12	Business administration	14
Junior	9	Design	9
Senior	11	Education	--
Graduate	58	Engineering	7
Undeclared	3	Home Economics	13
		Science and humanities	39
		Veterinary medicine	--
Residing in I.S.U. housing:		**Shared living quarters:**	
I.S.U. housing	56	None	14
Non I.S.U. housing	44	One person	47
		Two or more persons	39
Highest level of education completed by the main income earner:		**Time spent pursuing leisure activities per week:**	
Unknown	5	1 to 9 hours	60
Elementary K-8	3	10 to 19 hours	26
Secondary 9-12	12	20 to 29 hours	10
Vocational 1-4	7	30 to 39 hours	4
College/university	73	40 to 49 hours	--
		50 or more hours	--

Table 4. (continued)

Variable	%	Variable	%
Present G.P.A.:		Nationality:	
.00 to .99	--	Africa	8
1.00 to 1.99	--	British Isles	--
2.00 to 2.99	9	Central America	--
3.00 to 3.99	89	East Asia	31
4.00	2	IndoChina	12
Unknown	--	Mexico	2
		South America	2
Time spent in the United States:		Southeast Asia	20
		Southern Asia	21
1 to 11 months	25	Southwest Asia	4
12 to 23 months	21	West Indies	--
24 to 35 months	29		
36 to 47 months	8		
48 or more months	17		

Table 5. American and international students actual happiness -
Eigenvalues of initial extracted factors

American students actual happiness - Eigenvalues of initial extracted
factors
(Eigenvalues are rounded to the nearest hundredth)

Factor	Eigenvalue
Factor 1	8.52
Factor 2	2.70
Factor 3	1.97
Factor 4	1.70
Factor 5	1.44
Factor 6	1.37
Factor 7	1.26

International students actual happiness - Eigenvalues of initial
extracted factors
(Eigenvalues are rounded to the nearest hundredth)

Factor	Eigenvalue
Factor 1	8.03
Factor 2	2.89
Factor 3	2.03
Factor 4	1.79
Factor 5	1.45
Factor 6	1.22
Factor 7	1.19

Table 6. American students actual factor matrix: Varimax (orthogonal) rotation

(Factor loadings are rounded to the nearest hundredth)

Question Number	Factor 1	Factor 2	Factor 3	Factor 4	h2
1	.55	.11	.07	-.01	.32
2	.09	.75	.13	.05	.59
3	.24	.73	.09	.06	.60
4	-.09	.09	.00	.77	.61
5	.11	.06	.14	.67	.48
6	.13	.07	.09	.38	.17
7	.22	.03	.11	.25	.12
8	.15	.07	.45	.46	.44
9	.37	.33	.23	.19	.33
10	.12	.84	.15	.12	.76
11	-.05	.12	.05	.78	.63
12	.37	.17	.26	.19	.27
13	.15	.07	.45	.45	.43
14	.05	.21	.65	.09	.48
15	.23	.38	.32	.16	.33
16	.69	.19	.10	.05	.52
17	.40	.31	.47	.15	.50
18	.66	.27	.24	.17	.60
19	.31	.27	.42	.11	.36
20	.18	.16	.51	.04	.32
21	.05	.11	.33	.51	.38
22	.16	.62	.20	.11	.46
23	.13	.06	.77	.20	.65
24	.79	.15	.23	-.00	.70
25	.28	.32	.43	.06	.37
26	.74	.15	.16	.19	.63
27	.24	.34	.08	.14	.20
28	.32	.10	.36	.19	.28
29	.23	.17	.01	.28	.16
30	.21	.34	.22	.09	.22
Eigenvalue	8.52	2.70	1.97	1.70	14.89
Percent Variance	3.60	3.30	3.04	2.97	--
Cumulative Percent Variance	3.60	6.90	9.94	12.91	--

Table 7. International students actual factor matrix: Varimax
(orthogonal) rotation

(Factor loadings are rounded to the nearest hundredth)

Question Number	Factor 1	Factor 2	Factor 3	Factor 4	h2
1	.44	.44	.19	-.06	.43
2	.09	.53	.13	-.01	.31
3	.03	.64	.20	-.03	.45
4	-.07	.09	.06	.70	.51
5	.26	-.09	.19	.45	.31
6	.28	.18	-.01	.28	.19
7	.56	-.16	.16	.09	.37
8	.43	-.12	.49	.46	.65
9	.50	.31	.24	.00	.40
10	.13	.59	.24	.09	.43
11	-.03	.22	.14	.61	.44
12	.34	.10	.15	.11	.16
13	.27	-.09	.42	.52	.53
14	.30	.20	.59	.03	.48
15	.13	.29	.57	.07	.43
16	.65	.35	-.02	.09	.55
17	.52	.15	.30	-.01	.38
18	.65	.29	.20	.01	.55
19	.06	.27	.56	.01	.39
20	.08	-.05	.37	.18	.18
21	.23	.09	.23	.56	.43
22	.27	.54	.01	.17	.39
23	.14	.05	.61	.34	.51
24	.65	.50	.11	-.01	.68
25	.46	.31	.14	.18	.36
26	.59	.40	-.03	.12	.52
27	.19	.56	-.15	.24	.43
28	.58	-.09	.27	.19	.45
29	.50	.08	.09	.25	.33
30	.19	.09	.43	.24	.29
Eigenvalue	8.03	2.89	2.03	1.79	14.74
Percent Variance	4.31	3.05	2.71	2.42	--
Cumulative Percent Variance	4.31	7.36	10.07	12.49	--

Table 8. American students' actual happiness - Items retained in each factor (N = 323.)

Question Number	Factor Loading
Factor 1: Goal Striving	
24. Thinking about current academic and/or professional goals.	.79
26. Making time to think about current academic and/or professional goals.	.74
16. Spending time thinking about future goals in life.	.69
18. Developing plans to achieve my goals.	.66
1. Thinking about goals that I would like to achieve.	.55
Reliability coefficient (Spearman Brown) r = .82	
Factor 2: Physical Appearance	
10. Feeling satisfied with my physical appearance.	.84
2. Feeling satisfied with my body shape and size.	.75
3. Being sexually appealing to others.	.73
22. Being concerned about my physical appearance.	.62
Reliability coefficient (Spearman Brown) 4 = .82	
Factor 3: Social Relationships	
23. Being a good friend to others.	.77
14. Spending time with one or more close friends	.65
20. Having a good relationship with one or more parent.	.51
Reliability coefficient (Spearman Brown) r = .68	
Factor 4: Assisting Others	
11. Spending time with children.	.78
4. Caring for children.	.77
5. Teaching others new skills.	.67
Reliability coefficient (Spearman Brown) r = .79	

Table 9. International students actual happiness - Items retained in
each factor (N = 207)

Question Number	Factor Loading

Factor 1: Goal Striving

16. Spending time thinking about future goals in life.   .65
18. Developing plans to achieve my goals.   .65
26. Making time to think about current academic and/or
     professional goals.   .59
28. Learning new things.   .58
 7. Obtaining knowledge by reading.   .56
Reliability coefficient (Spearman Brown r = .74

Factor 2: Physical Appearance

 3. Being sexually appealing to others.   .64
·10. Feeling satisfied with my physical appearance.   .59
22. Being concerned about my physical appearance.   .54
 2. Feeling satisfied with my body shape and size.   .53
Reliability coefficient (Spearman Brown) r = .67

Factor 3: Social Relationships

23. Being a good friend to others.   .61
14. Spending time with one or more close friends.   .59
15. Investing effort into my personal relationships.   .57
19. Feeling accepted by others.   .56
Reliability coefficient (Spearman Brown) r = .67

Factor 4: Assisting Others

 4. Caring for children.   .70
11. Spending time with children.   .61
21. Volunteering time to help those in need.   .56
Reliability coefficient (Spearman Brown) r = .65

Table 10. American and international students ideal happiness -
Eigenvalues of initial extracted factor

American students ideal happiness - Eigenvalues of initial extracted
factors
(Eigenvalues are rounded to the nearest hundredth)

Factor	Eigenvalue
Factor 1	8.95
Factor 2	2.92
Factor 3	1.75
Factor 4	1.66
Factor 5	1.21
Factor 6	1.16
Factor 7	1.13

International students ideal happiness - Eigenvalues of initial
extracted factors
(Eigenvalues are rounded to the nearest hundredth)

Factor	Eigenvalue
Factor 1	8.38
Factor 2	2.59
Factor 3	1.77
Factor 4	1.59
Factor 5	1.37
Factor 6	1.25
Factor 7	1.10

Table 11. American students ideal happiness factor matrix: Varimax (orthogonal) rotation

(Factor loadings are rounded to the nearest hundredth)

Question Number	Factor 1	Factor 2	Factor 3	Factor 4	h2
1	.34	.23	.42	-.07	.35
2	.66	.21	.06	.02	.48
3	.71	.09	.06	-.00	.52
4	.16	.20	.11	.70	.57
5	.14	.27	.29	.42	.35
6	-.04	-.00	.51	.36	.39
7	-.13	.11	.55	.23	.38
8	.04	.52	.30	.39	.51
9	.36	.22	.42	.08	.36
10	.76	.22	.05	.03	.63
11	.08	.16	.06	.77	.63
12	.27	.19	.37	.11	.26
13	-.01	.50	.28	.28	.41
14	.16	.61	.15	.09	.43
15	.17	.54	.17	.08	.36
16	.45	.41	.43	-.11	.57
17	.35	.35	.31	.10	.35
18	.38	.39	.47	-.09	.53
19	.52	.26	.11	.12	.36
20	.14	.51	.06	.19	.32
21	.02	.33	.32	.47	.43
22	.63	.15	.03	.11	.43
23	.20	.72	.13	.21	.62
24	.49	.33	.45	-.03	.55
25	.37	.40	.25	.11	.37
26	.43	.27	.61	-.04	.63
27	.60	-.12	.05	.12	.39
28	.10	.40	.45	.11	.38
29	.04	.03	.53	.22	.33
30	.12	.46	.03	.06	.23
Eigenvalue	8.95	2.92	1.75	1.66	15.28
Percent Variance	4.12	3.72	3.15	2.15	--
Cumulative Percent Variance	4.12	7.84	10.99	13.14	--

Table 12. International students ideal happiness factor matrix:
Varimax (orthogonal) rotation

(Factor loadings are rounded to the nearest hundredth)

Question Number	Factor 1	Factor 2	Factor 3	Factor 4	h2
1	.02	.30	.06	.43	.1849
2	.14	.04	.01	.73	.55
3	.12	.04	-.03	.64	.43
4	.05	.06	.83	.09	.70
5	.24	.12	.50	.03	.32
6	.05	.27	.36	.07	.21
7	.23	.41	.38	-.04	.37
8	.53	.21	.46	.04	.54
9	.16	.36	.18	.40	.35
10	.37	.02	.10	.62	.53
11	.11	.10	.70	.13	.53
12	.27	.26	.13	.20	.20
13	.52	.15	.48	.05	.72
14	.51	.13	.07	.10	.29
15	.46	.28	.05	.13	.31
16	.10	.58	.11	.42	.53
17	.55	.29	.01	.20	.53
18	.33	.51	.13	.19	.42
19	.55	-.02	.04	.23	.36
20	.47	.13	.29	.04	.32
21	.44	.25	.43	.14	.46
22	.28	.18	.10	.33	.23
23	.60	.06	.31	.10	.47
24	.13	.64	.09	.32	.54
25	.37	.24	.15	.29	.30
26	.28	.65	.11	.23	.57
27	.03	.25	.12	.52	.35
28	.38	.42	.31	-.10	.43
29	.16	.44	.20	.00	.26
30	.44	.27	.07	.12	.28
Eigenvalue	8.38	2.59	1.77	1.59	14.33
Percent Variance	3.60	2.96	2.82	2.74	--
Cumulative Percent Variance	3.60	6.56	9.38	12.12	--

Table 13. American students ideal happiness - Items retained in each factor (n = 323)

Question Number	Factor Loading
Factor 1: Physical Attractivness	
10. Feeling satisfied with my physical appearance.	.76
3. Being sexually appealing to others.	.71
2. Feeling satisfied with my body shape and size.	.66
22. Being concerned about my physical appearance.	.63
27. Evaluating others' opinions about my attractiveness.	.60
Reliability coefficient (Spearman Brown) r = .80	
Factor 2: Social Relationships	
23. Being a good friend to others.	.73
14. Spending time with one or more close friends.	.61
15. Investing effort into my personal relationships.	.54
20. Having a good relationship with one or more parent.	.51
13. Assisting others to meet their needs.	.50
Reliability coefficient (Spearman Brown) r = .71	
Factor 3: Goal Striving	
26. Making time to think about current academic and/or professional goals.	.61
7. Obtaining knowledge by reading.	.55
29. Writing, related to academic and/or other areas.	.53
Reliability coefficient (Spearman Brown) r = .58	
Factor 4: Assisting Others	
11. Spending time with children.	.77
4. Caring for children.	.70
Reliability coefficient (Spearman Brown) r = .70	

Table 14. International students ideal happiness - Items retained in each factor (n = 207)

Question Number	Factor Loading
Factor 1: Social Relationships	
23. Being a good friend to others.	.60
19. Feeling accepted by others.	.55
17. Solving personal problems.	.55
14. Spending time with one or more close friends.	.51
Reliability coefficient (Spearman Brown) r = .64	
Factor 2: Goal Striving	
26. Making time to think about current academic and/or professional goals.	.65
24. Thinking about current academic and/or professional goals.	.64
16. Spending time thinking about future goals in life.	.58
Reliability coefficient (Spearman Brown) r = .66	
Factor 3: Assisting Others	
4. Caring for children.	.83
11. Spending time with children.	.70
5. Teaching others new skills.	.50
Reliability coefficient (Spearman Brown) r = .72	
Factor 4: Physical Attractiveness	
2. Feeling satisfied with my body shape and size.	.73
3. Being sexually appealing to others.	.64
10. Feeling satisfied with my physical appearance.	.62
27. Evaluating others' opinions about my attractiveness.	.52
Reliability coefficient (Spearman Brown) r = .72	

Table 15. American and international mean scale score group compari-
sons - Actual items

Item	American n = 323		International n = 207		
	X̄	SD	X̄	SD	P
29	45.18	27.91	55.77	25.38	.0001
25	78.48	19.73	72.57	21.49	.001
23	79.92	16.85	73.84	18.56	.0001
22	63.54	25.24	51.42	27.00	.0001
14	77.50	20.33	67.33	23.23	.0001
12	59.75	23.63	68.22	22.60	.0001
7	55.82	25.51	71.17	20.46	.0001
3	60.79	23.32	52.44	25.19	.0001

Table 16. Male and female mean scale score group comparisons - Actual
items

Item	Males n = 264		Females n = 263		
	X̄	SD	X̄	SD	P
23	74.51	17.94	80.46	17.12	.0001
15	63.65	24.53	70.65	24.38	.001
14	69.35	22.50	77.60	20.89	.0001

Table 17. American and international males' mean scale score group
comparisons - Actual items

Item	American males n = 119		International males n = 147		
	$\overline{X}$	SD	$\overline{X}$	SD	P
22	62.66	24.68	51.90	26.18	.0001
12	57.74	24.15	68.41	22.16	.0002
7	55.96	24.79	71.43	20.81	.0001

Table 18. American and international females' mean scale score group
comparisons - Actual items

Item	American females n = 204		International females n = 59		
	$\overline{X}$	SD	$\overline{X}$	SD	P
7	55.67	26.01	70.05	19.57	.0001

Table 19. American males' and females' mean scale score comparisons -
Actual items

Item	American males n = 117		American females n = 204		
	$\overline{X}$	SD	$\overline{X}$	SD	P
23	76.52	18.34	81.81	15.69	.0007

Table 20. American and international mean scale score group comparisons - Ideal items

| Item | American n = 323 | | International n = 207 | | |
	$\bar{X}$	SD	$\bar{X}$	SD	P
29	57.54	26.34	72.06	22.96	.0001
23	89.30	10.84	84.00	15.14	.0001
15	86.93	14.18	79.40	19.46	.0001
14	87.38	82.57	14.22	16.19	.0004
7	72.50	22.73	86.69	13.23	.0001
6	45.26	29.37	55.80	28.05	.0001
3	68.88	23.67	72.54	25.23	.0008

Table 21. Male and female mean scale score group comparisons - Ideal items

| Item | Males n = 264 | | Females n - 263 | | |
	$\bar{X}$	SD	$\bar{X}$	SD	P
23	83.76	14.27	90.60	10.40	.0001
20	85.52	17.81	92.56	11.75	.0001
15	80.33	18.80	87.55	13.72	.0001
14	82.86	16.10	88.14	13.77	.0001
13	74.34	18.26	80.48	16.04	.0001
8	82.41	16.73	88.21	12.29	.0001

Table 22. American and international males' means scale score group
comparisons - Ideal items

Item	American males n = 119 X	SD	International males n = 147 X	SD	P
29	53.27	28.15	70.59	23.79	.0001
21	64.07	24.11	73.51	20.25	.0007
11	61.32	24.20	73.18	24.23	.0001
7	70.11	24.06	86.02	13.06	.0001
6	37.20	26.99	52.92	28.75	.0001

Table 23. American and international females' mean scale score group
comparisons - Ideal items

Item	American females n = 204 X	SD	International females n = 59 X	SD	P
29	59.89	25.01	75.15	20.56	.0001
7	73.78	21.90	88.19	13.66	.0001

Table 24. American males' and females' mean scale score comparisons -
Ideal items

Item	American males n = 117 X	SD	American females n = 204 X	SD	P
28	85.39	11.63	91.50	9.72	.0001
21	64.07	24.11	74.92	20.15	.0001
20	85.62	18.21	93.01	11.46	.0001
17	70.25	21.66	78.18	18.32	.0006
16	73.28	21.32	80.82	16.33	.0004
15	83.30	15.54	88.97	12.94	.0005
13	71.47	18.47	80.62	16.01	.0001
11	61.32	24.20	72.29	25.92	.0002
8	80.89	17.29	88.05	12.42	.0001
6	37.20	26.99	49.81	29.80	.0002

Table 25. American t-tests – Actual and ideal items (n = 323)

Question Number	Actual $\overline{X}$	SD	Ideal $\overline{X}$	SD	P
1	68.02	17.87	80.24	18.11	.0001
2	61.74	27.01	76.94	22.32	.0001
3	60.79	23.32	68.88	23.67	.0001
4	54.03	34.00	73.90	25.95	.0001
5	59.02	26.17	74.80	20.88	.0001
6	31.26	28.91	45.26	29.37	.0001
7	55.82	25.51	72.50	22.73	.0001
8	70.91	19.63	85.49	14.77	.0001
9	66.51	22.60	77.49	20.12	.0001
10	63.31	24.71	78.49	19.62	.0001
11	45.40	31.15	68.38	25.82	.0001
12	59.75	23.63	74.30	20.05	.0001
13	63.89	20.99	77.35	17.50	.0001
14	77.50	20.33	87.38	14.22	.0001
15	69.95	25.04	86.93	14.18	.0001
16	67.63	20.53	78.07	18.61	.0001
17	63.03	20.57	75.17	20.06	.0001
18	65.00	20.86	77.93	17.44	.0001
19	70.98	20.64	76.59	20.04	.0001
20	82.02	22.15	90.34	14.69	.0001
21	52.48	27.69	71.02	22.25	.0001
22	63.54	25.24	68.94	25.65	.0006
23	79.92	16.85	89.30	10.84	.0001
24	67.24	22.10	79.56	17.45	.0001
25	78.48	19.73	90.09	12.18	.0001
26	61.79	23.64	73.68	20.38	.0001
27	53.36	25.89	54.11	27.04	.5786
28	75.21	16.44	84.19	14.62	.0001
29	45.18	27.91	57.54	26.34	.0001
30	69.72	32.21	90.94	13.29	.0001

Table 26. International t-tests - Actual and ideal items (n = 207)

Question Number	Actual $\bar{X}$	SD	Ideal $\bar{X}$	SD	P
1	68.74	21.74	82.30	20.57	.0001
2	61.24	25.67	72.54	25.23	.0001
3	52.44	25.19	61.28	27.32	.0001
4	57.17	32.48	77.31	24.53	.0001
5	61.49	26.57	77.17	22.70	.0001
6	36.83	27.02	55.80	28.05	.0001
7	71.17	20.47	86.69	13.23	.0001
8	71.89	20.07	85.20	15.25	.0001
9	63.93	23.00	79.28	21.49	.0001
10	63.88	24.11	75.87	21.35	.0001
11	44.08	33.44	74.19	23.49	.0001
12	68.22	22.60	79.06	20.49	.0001
13	64.93	20.17	77.50	17.48	.0001
14	67.33	23.29	82.57	16.19	.0001
15	63.00	23.60	79.40	19.46	.0001
16	63.83	24.95	75.82	23.30	.0001
17	62.77	23.23	77.20	19.95	.0001
18	67.50	21.27	82.09	17.80	.0001
19	69.59	20.45	79.95	18.84	.0001
20	80.26	21.66	87.11	16.43	.0001
21	58.16	26.48	74.06	20.01	.0001
22	54.42	27.00	61.91	26.80	.0001
23	73.84	18.56	84.00	15.14	.0001
24	69.30	23.30	81.67	18.20	.0001
25	72.57	21.49	86.26	15.30	.0001
26	64.56	23.28	76.50	20.58	.0001
27	47.04	26.52	52.66	28.35	.0001
28	74.40	18.34	87.33	12.29	.0001
29	55.77	25.38	72.06	22.96	.0001
30	72.16	28.69	89.27	14.11	.0001

Table 27. American males t-tests - Actual and ideal items (n = 119)

Question Number	Actual X̄	Actual SD	Ideal X̄	Ideal SD	P
1	67.37	18.01	77.08	21.87	.0001
2	60.05	28.38	76.51	22.42	.0001
3	60.90	22.05	70.76	24.57	.0003
4	55.98	34.51	69.60	25.44	.0001
5	58.39	26.98	74.08	20.06	.0001
6	34.82	29.81	37.20	26.99	.0001
7	55.67	26.01	70.12	24.06	.0001
8	73.36	19.19	80.89	17.29	.0001
9	66.67	21.33	73.25	23.40	.0004
10	62.38	26.17	77.93	19.05	.0001
11	49.12	31.92	61.32	24.20	.0001
12	60.86	23.35	72.10	19.91	.0001
13	65.78	21.01	71.47	18.47	.0001
14	79.67	19.35	84.64	14.51	.0001
15	72.32	24.57	83.30	15.54	.0001
16	68.34	20.64	73.28	21.32	.0001
17	64.24	20.67	70.25	21.66	.0001
18	64.94	21.42	75.06	19.57	.0001
19	71.96	20.19	75.40	20.50	.0036
20	84.30	20.98	85.62	18.21	.0001
21	53.67	27.77	64.07	24.11	.0001
22	64.21	25.55	68.31	26.14	.0121
23	81.81	15.69	85.39	11.63	.0001
24	68.18	22.39	77.11	18.64	.0001
25	78.37	19.10	89.27	12.39	.0001
26	63.58	23.39	70.71	21.61	.0001
27	54.51	25.57	53.29	26.94	.4636
28	75.67	16.28	82.36	15.19	.0001
29	54.46	27.46	53.27	28.15	.0001
30	72.29	31.04	89.17	13.43	.0001

Table 28. International males t-tests - Actual and ideal items
(n = 147)

Question Number	Actual		Ideal		
	$\overline{X}$	SD	$\overline{X}$	SD	P
1	68.18	21.36	82.30	20.50	.0001
2	59.72	24.91	72.21	24.30	.0001
3	53.28	23.25	62.77	26.03	.0001
4	57.19	32.14	76.34	24.68	.0001
5	63.65	27.54	76.98	23.80	.0001
6	34.56	26.48	52.92	28.75	.0001
7	71.43	20.81	86.02	13.06	.0001
8	71.99	20.13	83.63	16.22	.0001
9	63.13	22.28	78.36	21.49	.0001
10	61.37	24.47	74.08	21.33	.0001
11	42.22	34.07	73.18	24.23	.0001
12	68.41	22.16	79.01	19.55	.0001
13	64.34	19.82	76.67	17.82	.0001
14	65.88	22.67	81.44	17.19	.0001
15	61.98	23.75	77.94	20.82	.0001
16	64.18	25.15	72.02	24.42	.0001
17	62.92	23.82	76.77	20.81	.0001
18	67.08	22.59	82.51	18.28	.0001
19	68.42	20.26	79.62	18.65	.0001
20	78.54	22.41	85.44	17.55	.0001
21	57.79	26.88	73.51	20.25	.0001
22	51.90	26.18	59.51	26.18	.0003
23	72.89	17.50	82.48	16.05	.0001
24	67.59	23.56	80.91	18.18	.0001
25	70.88	21.57	85.04	16.27	.0001
26	62.32	23.68	74.09	21.38	.0001
27	45.59	25.87	50.49	27.95	.0057
28	74.90	17.99	86.50	12.67	.0001
29	54.41	24.94	70.59	23.79	.0001
30	69.85	29.51	88.48	14.41	.0001

Table 29. American female t-tests - Actual and ideal items (n = 204)

Question Number	Actual $\bar{X}$	SD	Ideal $\bar{X}$	SD	$\underline{P}$
1	67.37	18.01	82.08	15.39	.0001
2	60.05	28.38	77.42	22.12	.0001
3	60.90	22.05	68.14	22.71	.0001
4	55.98	34.51	76.31	26.03	.0001
5	58.39	26.98	75.10	21.36	.0001
6	34.82	29.81	49.81	29.80	.0001
7	55.67	26.01	73.78	21.90	.0001
8	73.36	19.19	88.05	12.42	.0001
9	66.67	21.33	79.92	17.63	.0001
10	62.38	26.17	78.94	19.93	.0001
11	49.12	31.92	72.39	25.92	.0001
12	60.86	23.35	75.68	20.04	.0001
13	65.77	21.01	80.62	16.01	.0001
14	79.67	19.35	89.00	13.87	.0001
15	72.32	24.57	88.97	12.94	.0001
16	68.34	20.64	80.82	16.33	.0001
17	64.24	20.67	78.18	18.32	.0001
18	64.94	21.42	79.56	15.96	.0001
19	71.96	20.19	77.35	19.80	.0005
20	84.30	20.98	93.01	11.46	.0001
21	53.67	27.77	74.92	20.15	.0001
22	64.21	25.55	69.59	25.14	.0112
23	81.81	15.69	91.50	9.72	.0001
24	68.18	22.39	80.95	16.67	.0001
25	78.37	19.10	90.62	12.07	.0001
26	63.58	23.39	75.34	19.54	.0001
27	54.51	25.57	75.34	19.54	.0001
28	75.67	16.28	85.21	14.24	.0001
29	45.46	27.46	58.87	25.01	.0001
30	72.29	31.04	91.92	13.16	.0001

Table 30. International females t-tests- Actual and ideal items
(n = 59)

Question Number	Actual X̄	Actual SD	Ideal X̄	Ideal SD	P
1	69.66	22.64	82.84	20.66	.0002
2	65.98	26.18	73.74	27.62	.0118
3	49.55	29.05	56.84	29.95	.0124
4	56.37	33.40	79.42	24.29	.0001
5	57.19	22.44	78.93	17.38	.0001
6	41.36	26.96	62.10	24.98	.0001
7	70.05	19.57	88.12	13.66	.0001
8	71.17	19.95	88.78	11.92	.0001
9	66.21	24.91	81.28	21.57	.0001
10	69.51	22.08	79.93	20.97	.0001
11	47.58	31.30	76.20	21.62	.0001
12	68.88	22.34	79.68	22.62	.0020
13	66.14	21.20	80.02	16.28	.0001
14	70.42	24.29	85.14	13.10	.0001
15	64.88	23.01	82.68	15.25	.0001
16	63.17	24.78	77.45	20.29	.0001
17	61.80	21.59	77.88	17.76	.0001
18	68.00	17.50	80.74	16.64	.0001
19	71.93	20.67	80.41	19.45	.0001
20	84.17	19.36	90.98	12.68	.0001
21	60.03	24.74	75.00	19.45	.0001
22	61.47	27.32	68.84	26.38	.0217
23	75.76	20.82	87.45	12.09	.0001
24	73.02	22.24	83.26	18.32	.0002
25	76.27	20.88	88.97	12.37	.0001
26	69.46	21.37	81.95	17.40	.0001
27	51.40	27.39	58.09	29.09	.0132
28	73.59	19.19	89.19	11.18	.0001
29	58.37	26.03	75.15	20.56	.0001
30	77.32	26.09	91.03	13.39	.0001

SUMMARY AND DISCUSSION

The purpose of this study was to develop an instrument capable of identifying sources of perceived happiness potentially related to a university population. These sources were identified by hypothesizing a priori sources of happiness, developing the AIHS instrument, then collecting and analyzing data from a total sample of 823 Iowa State University students. These data were analyzed using three methods: factor analysis, mean score comparisons, and paired t-tests. The results of these data will now be summarized in further detail. The final sections of this chapter will include a discussion, recommendations for further study, and limitations.

Factor Analysis

As a result of the factor analysis on the university student subgroups, five a priori indicators of happiness were hypothesized and became the basis for the AIHS: Social Relationships, Physical Appearance, Desire for Learning, Assisting Others, and Goal Striving. Each factor contained five items. From these five a priori factors, four consistently appeared on the American students' "actual" happiness responses: Goal Striving, Physical Appearance, Social Relationships, and Assisting Others. These factors accounted for 12.91% of the variance. The factor analysis on the international students' "actual" responses revealed the same four factors: Goal Striving, Physical Appearance, Social Relationships, and Assisting Others. These factors accounted for 12.91% of the variance. The construct validity on this

instrument was indicated on four of the five a priori hypothesized factors.

American students' "ideal" happiness responses revealed the same four factors: Goal Striving, Physical Appearance, Social Relationships, and Assisting Others. These factors accounted for 13.14% of the variance. The factor analysis on the international students' "ideal" responses also revealed the same four factors: Goal Striving, Physical Appearance, Social Relationships, and Assisting Others. These factors accounted for 12.12% of the variance. The construct validity on this instrument was indicated on four of the five a priori hypothesized factors.

Item Contrasts

The next purpose of this study was to compare and identify possible differences among the American and international student subgroups. A series of mean score comparisons, analyzing the means of each group per item, were undertaken. The results of these comparisons will now be examined.

Actual Happiness Items

American and international groups. When the responses to the AIHS were compared between the American and international student groups on "actual" happiness items, the American group scored significantly higher on five out of eight items. Two of these items related to the Social Relationships factor and the other three related to the Physical Appearance factor. The international student group scored significantly

higher on three items related to the Desire for Learning.

Males and females. When the responses to the AIHS were compared
between male and female groups, the female group scored significantly
higher on three items related to the Social Relationships factor.

American and international males. When the responses to the AIHS
were compared between the American and international male groups, three
itmes were found to be significantly different. The American males
scored significantly higher on one item related to the Physical Appear-
ance factor and the international male group scored significantly higher
on two items related to the Desire for Learning.

American and international females. When the responses to the
AIHS were compared between the American and international female groups,
the international female group scored significantly higher on one item
related to the Desire for Learning.

American males and females. When the responses to the AIHS were
compared between the American males and females, the American female
group scored significantly higher on one item related to the Social
Relationships factor.

Ideal Happiness Items

American and international groups. When the responses to the AIHS
were compared between the American and international student groups on
"ideal" happiness items, seven items were found to be significant. The
American group scored significantly higher on three items related to
the Social Relationships factor. The international student group

scored significantly higher on four items; one item was related to the Physical Appearance factor and the other three items were related to the Desire for Learning.

Males and females. When the responses to the AIHS were compared between male and female student groups, the female group scored significantly higher on six items; four were related to the Social Relationships factor and the other two were related to the Assisting Others factor.

American and international males. When the responses to the AIHS were compared between the American and international males groups, five items were found to be significantly higher by the international male group; three of the items related to the Desire for Learning and two of the items related to the Assisting Others factor.

American and international females. When the responses to the AIHS were compared between the American and international females, two items were found to be significant for the international female group and were related to the Desire for Learning.

American males and females. When the responses to the AIHS were compared between the American males and females, ten items were found to be significant for the American female group, two items were related to the Social Relationships factor, three items were related to the Desire for Learning, four items were related to the third factor, Assisting Others, and the last item was related to the Goal Striving factor.

T-Tests

In all groups, individuals' differences between their "actual" and "ideal" responses were assessed by a series of paired t-tests. The purpose of the t-tests were to determine if significant discrepancies existed between how much each item contributed to the individual's "actual" happiness verses how much the item would contribute to the individual's "ideal" happiness. For each group, individuals' discrepancies between these two constructs were significant at the $p < .001$ level on most of the AIHS items. Of these significant items, all of the "ideal" means were found to be higher than the "actual" means which will now be examined.

American group. Out of thirty items, twenty-nine were found to be significant. One item was not significant: "27. Evaluating others' opinions about my attractivenesss".

International group. All 30 of the items were found to have significant mean differences. Discrepancies exist between the elements individuls identify contributing to their present happiness verses what is sought for future happiness.

American males. There were 27 items found to have significant differences. Three items were not significant: "19. Feeling accepted by others", "22. Being concerned about my physical appearance", and "27. Evaluating others' opinions about my attractiveness".

Internotional males. There were 29 items found to have significant mean differences. One item was not significant: "27. Evaluationg others' opinions about my attractiveness".

American females. There were 28 items found to have significant mean differences. Two items were related to physical appearance: "22. Being concerned about my physical appearance" and "27. Evaluating others' opinions about my attractiveness" and found to have insignificant mean differences.

International females. There were 25 items found to have significant mean differences. Five items were found to be insignificant. Four items related to physical appearance: "2. Feeling satisfied with my body shape and size", "3. Being sexually appealing to others", "27. Evaluating others' opinions about my attractiveness", and "22. Being concerned about my physical appearance". The fifth item, "12. Solving work or school-related problems was also insignificant".

Discussion

Research interest in the study of happiness and life satisfaction has been growing steadily since the early part of this century. It has been possible to trace the emergence of several correlates, positively associated with subjective happiness, throughout the literature. On the basis of this information, the AIHS was developed. Each factor, Physical Attractiveness, Social Relationships, Goal Striving, and Assisting Others will now be discussed in relationship to the research

literature. A fifth hypothesized component, Desire for Learning, will also be discussed although it did not appear in the "actual" or "ideal" factor structures but proved to be significant in the mean score comparisons and the paired t-test procedures.

Physical Attractiveness. There were six AIHS items related to this factor addressing topics such as sex appeal, body satisfaction and maintaining one's health. Subjective happiness was related to health and the ability to favorably describe oneself in early studies (Smith, 1961; Watson, 1930). The importance of maintaining good health through participation in sports and similar types of activities was also observed (Bradburn & Caplovitz, 1965; Fellows, 1966; Washburne, 1941; Watson, 1930).

The subjective experience of happiness has also been associated with the practive of maintaining good health (Cantril, 1965; Edwards & Klemmack, 1973; Goldings, 1954; Gurin et al., 1960; Iisager, 1948; Landis, 1942; Larson, 1978; Lawton, 1943; Markides & Martin, 1979; Near et al., 1978; Ray, 1979; Riddick, 1980; Spreitzer & Snyder, 1974; Toseland & Rasch, 1979-1980; Wessman, 1957; Zeglen, 1977). Diener (1984) speculated that one of the reasons this correlate has seemingly endured is because for many individual's good health has been equated with the possibility of increased overall life satisfaction. Good health has been associated with the personal rewards it might bring to the individual as well as other factors such as longevity and the possible prevention of serious illness.

<u>Social Relationships</u>. There were six items related to the estab-
lishment and maintenance of social relationships on the AIHS. These
items covered topics such as spending time with friends, family and
loved ones, feeling accepted by others, and investing effort into main-
taining social relationships. Similar to the previous factor, subjec-
tive happiness has been strongly correlated with social relationships,
especially in areas such as maintaining social contact (Anderson, 1977;
Campbell et al., 1976; Edwards & Klemmack, 1973; Falkman, 1973; Knapp,
1976; Markides & Martin, 1979; Mitchell, 1976; Olsen, 1980; Palmore &
Luikart, 1972; Rhodes, 1980; Toseland & Rasch, 1979-1980; VanCoevering,
1974; Zeglen, 1977), maintaining satisfying romantic relationships
(Anderson, 1977; Freeman, 1978; Forrester, 1980; Gordon, 1975), and
the development and maintanence of loving, affectionate relationships
among high school and college students (Hart, 1945; Iisager, 1948;
Scott, 1967). Arkoff (1975) suggested that single adults were happier
than those who were widowed or divorced, and young women were generally
more affectively expressive and happier than their male counterparts
(Medley, 1980; Spreitzer & Snyder, 1974). Marital and family satisfac-
tion was also found to be strongly correlated with subjective happiness
(Campbell et al., 1976; Freudiger, 1980; Glenn & Weaver, 1979, 1981a;
Michalos, 1980; Toseland & Rasch, 1979-1980).

Within this category of social relationships is another type of
variable, self-esteem. It was associated with successful social func-
tioning and feelings of happiness (Anderson, 1977; Czaja, 1975;

Drumgoole, 1981; Ginandes, 1977; Higgins, 1978; Kozma & Stones, 1978; Peterson, 1975; Pomerantz, 1978; Reid & Ziegler, 1980; VanCoevering, 1974; Wilson, 1960).

Although success in the ability to form and maintain satisfying social relationships appear to be positively correlated with subjective happiness, it is unclear how much of this is due to positive characteristics in one's personality, due to the environmental availability of contacts, or due to some combination of both. Some researchers suggested that happier individuals were those who possessed and constantly utilized their positive personality traits, which set them apart from those who identified themselves as less happy (Arkoff, 1975; Fellows, 1966; Wessman, 1957).

Goal Striving. There were six items related to the process and attainment of future academic, professional and personal goals on the AIHS. In early studies, subjective happiness was positively associated with the successful attainment of a major goal such as finding employment, a high status job or the pursuit of a similarly meaningful activity such as education (Arkoff, 1975; Cantril, 1965; Cassel, 1954; Hutscher, 1964; Flügel, 1925; Iisager, 1948; Lawton, 1943; Watson, 1930). Wessman and Ricks (1966) found that compared to men who claimed to be less happy, happier men were able to clearly set goals, estimate time needed to complete the goals and specify commitments to reach their goals. Wilson (1967) postulated that happiness was strongly related to reaching one's goals in life, a position also supported by Chekola

(1975). The process of identifying one's needs, planning goals and successfully attaining them appears to be a common theme throughout many of these studies.

Assisting Others. There were six items on the AIHS which described helping types of behaviors such as volunteerism, teaching others skills, and assisting others (particularly children), in meeting their needs. These types of behaviors have been associated with subjective happiness particularly through societal roles such as family income earner, teacher, and parent (Cantril, 1965; Veenhoven, 1984a). Many of the subjects participating in this study were approaching or facing transition points common to young adulthood, where such themes were considered relevant to their conceptions of happiness.

Desire for Learning. There were six items on the AIHS related to the pursuit of knowledge. These included utilizing problem solving skills related to school, personal or work issues, reading and/or writing. Arkoff (1975) found that the pursuit of knowledge was strongly associated with college students' reports of subjective happiness. Some researchers found that subjective happiness and the attainment of higher education was a happier experience for women as they expected more personal and career options available to them as a result (Freudiger, 1980; Glenn & Weaver, 1981b; Mitchell, 1976).

Since the focus of the study was to explore college student's perceptions of happiness, and few studies were actually available specifically related to this topic, the area of college student satis-

faction was explored, generally, and in the area of international student satisfaction. One finding was that high self-esteem was related to student satisfaction. Students who possessed high levels of self-esteem had established positive social patterns, had fewer emotional concerns, had more contacts with faculty members, and less difficulty choosing a major (Schmidt & Sedlacek, 1972). They tended to respond favorably to their total academic environment (Pervin, 1967) and in outside activities such as employment (Ernst, 1966). For international students, a positive self-concept was related to successful academic performance (Kim, 1983; Mehrinfar, 1982; Sharp, 1982). Taha (1984) supported this view by suggesting that for international students, successful completion of their educational goal at an American college or university, was a major goal. Other important areas of concern included adjusting to environmental demands, maintaining contact with family and friends, economic support, and finding employment after graduation.

The above findings were supported in the results of the mean score comparisons. When American and international group means were compared on "actual" and "ideal" responses, the international male and female students means were significantly higher in areas related to the Desire for Learning. There were no significant differences when international males and females means were compared with each other, only in contrast to American students. American males and females mean differences were significantly higher in areas such as social relationships and physical attractiveness.

The individual paired t-tests showed twenty-five out of thirty of the AIHS items were significant at the $p < .001$ level for all subjects. The "ideal" happiness means were higher than the "actual" means, demonstrating this discrepancy. For the international males and females, items related to physical appearance and others' evaluating their physical appearance were not significant. For the American males and females, items related to feeling acceptance from others and others' evaluating their physical appearance were not significant.

In conclusion, the AIHS factors were developed based on happiness sources which were positively correlated with the subjective experience of happiness, in the research literature. Several of these correlations were identified: maintaining one's health, the positive influence of social relationships, personal factors that relate to sociability such as a positive self-concept, marital and family relationships, goal striving and the identification of one's needs, volunteerism and other helping behaviors and the pursuit of knowledge. Since little research exists on students perceived sources of happiness, general and international student satisfaction was explored. Positive self-concept was attributed to student's success in their academic environments and for international students, contributed to the successful achievement of their goal, their academic degree.

Two theories were mentioned earlier in this study which were considered to have important implications for this study. In Michalos' (1986) Multiple Discrepancies Theory (MDT) net satisfaction was postu-

lated as the result of discrepancies between what one has and what one wants out of life, similar to the concept of measuring discrepancies among subjects' "actual" and "ideal" happiness. Another theory postulated by Veenhoven (1984a) was a two-component conception of happiness which suggested that overall happiness was the combined measure of components: hedonic level of affect and contentment. Sample items were created, attached to the AIHS and factor analyzed with no clear factor structures existing for each component. These two theories, however, attempt to view the nature of happiness as an individualistic process, by discrepancy or component, and deserve further exploration.

·In summary, this study focused on student's perceptions of the emotional and cognitive sources they felt would contribute to their current, as well as future conceptions of happiness. Construct validity was demonstrated on the AIHS as several items appeared to cluster around four hypothesized factors when factor analyzed. When groups were contrasted as to their specific contributions to their happiness, the contributions appeared to be related to their particular needs. For North American students items related to physical appearance, social relationships, and goal striving were selected. For International students items related to the desire for learning were selected and emerged in these group mean contrasts. The use of paired t-tests on individual's item means revealed significant differences between the actual and ideal contributions to happiness as all of the ideal means were significantly higher.

Suggestions for Further Research

1. In the present study, the AIHS accounted for 12% of the variance among the American and international groups. The AIHS items need to be rewritten and the item pool enlarged to address this situation. The second step would be to refactor analyze the instrument, administering it to large groups and continue with further validation studies.

2. If greater variance could be established, the instrument could be normed by administering it to large numbers of American and Cross-national groups. In each group the following information could be identified: (1) individuals that consistently score higher than other groups on the numbers of indicators that contribute to their perceived "actual" and "ideal" happiness, and (2) individuals that consistently score lower on discrepancies between their perceived "actual" and "ideal" happiness indicators. These individuals would serve as a normative group representing the ability to select several happiness contributions and the awareness of experiencing more happiness than those who identify greater discrepancies.

3. Refinement of the AIHS by adding a dimension to the response scale. Qualitative differences could be measured more specifically by adding a "time" reference to the "ideal" component questions. Instead of broadly defining "ideal" happiness items, subjects could be asked to conceptualize their perceptions within a 3 month, 6 month or 12 month period. This would add substnatially to the interpretation of the "actual" verses "ideal" discrepancies per individual and by group.

4. A final step would be further analyze these data to determine whether variables such as subject's sex and ethnic background differ significantly from each other on each factor and by "actual" and "ideal" responses. A multiple analysis of variance (MANOVA) could be applied to the transformed data scores to test for these differences.

Limitation of the Study

The data for this dissertation were collected from students attending Iowa State University during the 1986-1987 academic year. Generalizations drawn from the results are therefore limited to individuals within these populations. Data collected on samples at other universities, including international student groups, would allow for greater generalizability.

The instruments used in this research were based on subject's self-reports. The information collected was then limited to the extent of subject self-understanding and willingness to share this information in an honest fashion.

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This dissertation is dedicated to my family, friends and committee members who provided support and encouragement throughout the process. I would like to especially acknowledge Dr. Dominick D. Pellegreno, whose watchful eye and constant guidance made the realization of this goal possible.

APPENDIX A.

EVALUATORS OF ORIGINAL INSTRUMENT

Dr. F. M. Andrews
Survey Research Center
Institute for Social Research
The University of Michigan
Ann Arbor, Michigan

Dr. Fred Brown
Psychology Department
Iowa State University
Ames, Iowa

Dr. James C. Crumbaugh
Clinical Psychologist
Gulfport, Mississippi

Dr. Michael Fordyce
Department of Social Sciences
Edison Community College
Fort Myers, Florida

Dr. C. Harry Hui
Department of Psychology
University of Hong Kong
Hong Kong

Dr. George A. Kizer
Professional Studies in Education/
Education Placement Office
Iowa State University
Ames, Iowa

Dr. Motoko Lee
Sociology Department
Iowa State University
Ames, Iowa

Dr. A. C. Michalos
Social Indicators Research
University of Guelph
Guelph, Ontario

Dr. Dominek Pellegreno
Professional Studies in Education
Iowa State University
Ames, Iowa

Mr. Dennis Peterson
International Educational Services
Iowa State University
Ames, Iowa

Dr. David F. Ricks
Psychology Department
University of Cincinnati
Cincinnati, Ohio

Dr. Daniel C. Robinson
Professional Studies in Education/
Assistant Dean
College of Education
Iowa State University
Ames, Iowa

Dr. C. H. Triandis
Psychology Department
University of Illinois
Champaign, Illinois

Dr. Ruut Veenhoven
Department of Sociology
Erasmus University
Rotterdam, The Netherlands

Dr. Richard C. Warren
Research Institute in Education
Iowa State University
Ames, Iowa

Dr. Leroy Wolins
Psychology/Statistics Department
Iowa State University
Ames, Iowa

Dr. Don Zytowski
Psychology Department
Iowa State University
Ames, Iowa

APPENDIX B.

LETTER TO INSTRUMENT EVALUATORS

Dear

I am a Ph.D. candidate who is working on a degree in community oriented counseling through the Department of Professional Studies in Education at Iowa State University. I am interested in learning more about individual's perceptions and definitions of the construct, happiness. My dissertation research consists of conducting a validation study where I will seek university student's self perceptions of happiness. Since I am unaware of these specific self perceptions, I have developed the enclosed instrument. The individuals will be asked to identify which elements contribute to their own perceptions regarding happiness.

The sample I plan to use will consist of Iowa State University undergraduate international and American student groups. Every effort will be made to ensure the student's confidentiality of responses by use of the subject number at the top of the Happiness Scale form. Hopefully, this approach will aid in the task of identifying an overall factor structure which will contain the three components of happiness - overall happiness, hedonic level of affect, and contentment - as posed by Dr. Ruut Veenhoven in his book, Conditions of Happiness (1984). The demographic data, appearing at the beginning of the enclosed questionnaire are also related to the work of Dr. Ruut Veenhoven, as his comprehensive literature review of this topic suggests that these factors might be related to establishing conditions of happiness.

My purpose in writing you is to solicit your assistance. Your name has appeared in the literature that I have been reviewing in establishing a basis for this study. I would be very appreciative if you would be willing to look at and evaluate the enclosed instrument, as much or as little as your schedule may permit. Write your comments on the instrument and return it in the stamped, self-addressed envelope. As you are well aware, dissertation research requires persistence; please don't feel offended if I follow up this letter with another contact within three to four weeks if I've not heard from you sooner. If you have any questions and wish to contact me, I can be reached at these numbers: area code (515) 294-7020 or area code (515) 292-6306. Thank you very much and I hope to hear from you soon.

Sincerely yours,

Cynthia Taylor

enclosure

APPENDIX C.

PILOT STUDY INSTRUMENT - CURRENT HAPPINESS SCALE

PILOT STUDY INSTRUMENT - CURRENT HAPPINESS SCALE

Subject Number _____

The purpose of the Happiness Scale is to have each respondant identify, by various statements, what contributes the most or least to their personal perception of overall happiness in life. This scale is composed of two types of information: a) demographic data and b) happiness opinion statements. The demographic information is used to sort out individual and group characteristics while the happiness opinion statements will be used to provide clues as to which each item contributes to individual's perceptions of happiness in life.

All of the information contained in this instrument will be kept confidential. The subject number at the top of the page will be used for statistical coding. Do not write your name on this form.

A) Begin by answering the following questions, filling in the blank when necessary. <u>Circle</u> the appropriate response:

1. Gender: (1) Male
            (2) Female

2. Age: (1) 18 years
         (2) 19 years
         (3) 20 years
         (4) 21 years
         (5) 22 years
         (6) 23 or more years

3. Marital status:
   (1) Single
   (2) Married
   (3) Separated
   (4) Divorced
   (5) Widowed

4. Year in College:
   (1) Freshman
   (2) Sophomore
   (3) Junior
   (4) Senior
   (5) Graduate
   (6) Undeclared
   (7) Special Student

5. How large was the community where you spent the majority of your life?
   (1) Less than 1,000
   (2) 1,000 - 4,999
   (3) 5,000 - 9,999
   (4) 10,000 - 49,999
   (5) 50,000 - 99,999
   (6) 100,000 - 299,999
   (7) 300,000+
   (8) Varied throughout life

6. I am: (1) an American citizen
          (2) not an American citizen

7. If not an American citizen, in which country do you hold citizenship?
   (1) India
   (2) Indonesia
   (3) Malaysia
   (4) People's Republic of China
   (5) Republic of China (Taiwan)
   (6) United States
   (7) _____(Other)

8. How long have you been
   in the United States?

   ___Years ___Months

9. How long have you attended
   Iowa State University?

   ___Years ___Months

10. In what college is your
    major area of study?
    (1) Agriculture
    (2) Business Administration
    (3) Design
    (4) Education
    (5) Engineering
    (6) Home Economics
    (7) Sciences and Humanities
    (8) Veterinary Medicine

11. How many others share your
    living quarters?
    (1) None
    (2) One person
    (3) Two or more people

12. Highest level of education
    completed by the main income
    earner in your family?
    (1) Unknown or none
    (2) Elementary school
        1 2 3 4 5 6 7 8
    (3) High school 9 10 11 12
    (4) College/University
        1 2 3 4 5 6 (or more)
    (5) Professional 1 2 3 4
    (6) Vocational 1 2 3 4

13. How much time do you spend
    pursuing hobbies or other
    leisure activities.

    ___ Hours per week

14. Do you live in University
    housing?
    (1) Yes
    (2) No

15. Present Grade Point Average
    (GPA) at Iowa State University:

    ___ Estimate if exact GPA is
        unknown
    ___ Unknown

CURRENT HAPPINESS SCALE

Instructions:

Following is a series of statements regarding your current state of happiness in life. Please answer each statement with a whole number from 1-99 in the space before each statement. You may use the full range of numbers. Answer "1" if you believe the statement is not contributing to your current state of happiness. Answer "99" if you believe the statement is contributing substantially to your current state of happiness. Respond "50" if you are uncertain or neutral about whether the statement is contributing to your current state of happiness life.

HOW MUCH IS EACH STATEMENT CONTRIBUTING TO YOUR CURRENT HAPPINESS IN LIFE?

1	10	20	30	40	50	60	70	80	90	99
is not					uncertain					is contributing
contributing					or neutral					substantially

____ 1. Making my own decisions.

____ 2. Helping others.

____ 3. Thinking about current academic and/or professional goals.

____ 4. Joining clubs or organizations whose interests are similar to mine.

____ 5. Having others consider me an attractive person.

____ 6. Feeling satisfied with my body shape and size.

____ 7. Thinking about living in a new location of my choice.

____ 8. Being satisfied with my physical appearance.

____ 9. Functioning well in my academic environment.

____ 10. Having one or more close friends.

____ 11. Having few worries compared to others.

____ 12. Having pleasant childhood memories.

____ 13. Being a good friend to others.

____ 14. Going out on weeknights or during weekend hours.

____ 15. Enjoying life.

____ 16. Aspiring to get more things out of life.

____ 17. Maintaining my health.

117

HOW MUCH IS EACH STATEMENT CONTRIBUTING TO YOUR CURRENT HAPPINESS IN LIFE?

1 . 10 20 30 40 50 60 70 80 90 99		
is not contributing	uncertain or neutral	is contributing substantially

___ 18. Finding meaningful employment in the future.

___ 19. Making time for leisure activities.

___ 20. Feelings romantic closeness with someone.

___ 21. Visiting new places.

___ 22. Spending time outdoors.

___ 23. Teaching others new skills.

___ 24. Spending time with one or more close friends.

___ 25. Managing my money.

___ 26. Accepting my limitations.

___ 27. Earning a large income.

___ 28. Expressing opinions in group dicussions.

___ 29. Having adequate transportation.

___ 30. Having a favorable attitude toward others.

___ 31. Participating in frequent physical exercise.

___ 32. Having enough money to meet daily expenses.

___ 33. Thinking about future goals in life.

___ 34. Recognizing a purpose to life.

___ 35. Believing in God (of my religion).

___ 36. Caring for children.

___ 37. Spending time with children.

___ 38. Solving work or school-related problems.

___ 39. Thinking about having financial independence.

___ 40. Thinking about past hurts.

___ 41. Having my own political beliefs.

___ 42. Visiting my immediate family.

___ 43. Thinking that I am sexually appealing.

___ 44. Having a good relationship with one or more parent.

HOW MUCH IS EACH STATEMENT CONTRIBUTING TO YOUR CURRENT HAPPINESS IN LIFE?

1	10	20	30	40	50	60	70	80	90	99
is not contributing					uncertain or neutral					is contributing substantially

___ 45. Listening to music.

___ 46. Building or creating something.

___ 47. Learning new things.

___ 48. Having a satisfying sex life.

___ 49. Having extra spending money.

___ 50. Learning about myself.

___ 51. Solving problems.

___ 52. Receiving emotional support from my immediate family.

___ 53. Reading for pleasure.

___ 54. Writing, related to academic and/or other areas.

___ 55. Having adequate housing.

___ 56. Being sensitive toward others needs.

___ 57. Being considered generous as a person.

___ 58. Feeling good emotionally.

___ 59. Feeling good physically.

___ 60. Helping others.

___ 61. Being able to eat the food of my choice.

___ 62. Making time to think about the way my life is going overall.

___ 63. Obtaining knowledge by reading.

___ 64. Writing for pleasure.

1	10	20	30	40	50	60	70	80	90	99
terrible					neutral					delighted

___ 65. How do you feel about your current life as a whole?

1	10	20	30	40	50	60	70	80	90	99
completely dissatisfied					uncertain or neutral					completely satisfied

___ 66. How satisfied are you with your current life as a whole?

APPENDIX D.

ITEMS RETAINED IN EACH FACTOR - PILOT STUDY (N = 301)

ITEMS RETAINED IN EACH FACTOR - PILOT STUDY (N = 301)

Factor 1: Social relationships

Question Number	Factor Loading
13. Being a good friend to others.	.74
10. Having one or more close friends.	.71
60. Helping others.	.70
56. Being sensitive toward others needs.	.68
24. Spending time with one or more close friends.	.67
Reliability coefficient (Spearman Brown) r = .83	

Factor 2: Physical attractiveness

Question Number	Factor Loading
8. Being satisfied with my physical appearance.	.75
6. Feeling satisfied with my body shape and size.	.73
5. Having others consider me an attractive person.	.63
43. Thinking that I am sexually appealing.	.62
Reliability coefficient (Spearman Brown) r = .78	

Factor 3: Assisting others

Question Number	Factor Loading
36. Caring for children.	.71
37. Spending time with children.	.69
23. Teaching others new skills.	.68
Reliability coefficient (Spearman Brown) r = .70	

Factor 4: Desire for learning

Question Number	Factor Loading
47. Learning new things.	.58
38. Solving work or school-related problems.	.53
54. Writing, related to academic and/or other areas.	.52
63. Obtaining knowledge by reading.	.52
Reliability coefficient (Spearman Brown) r = .62	

APPENDIX E.

THE ACTUAL AND IDEAL HAPPINESS SCALE

Subject Number _____

THE ACTUAL AND IDEAL HAPPINESS SCALE

These two instruments have been designed to assess certain aspects of happiness in an individual's life. The purpose of The Actual and Ideal Happiness Scale is to have the individual identity how the elements in the statements contribute and will contribute to happiness in life. The first statement focuses on whether the element is actually contributing to happiness in the present. The second statement focuses on whether the element will contribute more or less to future happiness in life. The purpose of The Psychap Inventory is to give the individual a chance to describe self with regard to personality characteristics that may or may not contribute to experiencing happiness in life.

The subject number at the top of the page will be used for statistical coding. Do not write your name on this form.

BACKGROUND INFORMATION

A) Begin by answering the following questions, filling in the blank when necessary. Circle the appropriate response:

1. Gender: (1) Male
            (2) Female

2. Age: (1) 18 years
         (2) 19 years
         (3) 20 years
         (4) 21 years
         (5) 22 years
         (6) 23 or more years

3. Marital status:
   (1) Single
   (2) Married
   (3) Separated
   (4) Divorced
   (5) Widowed

4. Year in College:
   (1) Freshman   (5) Graduate
   (2) Sophomore (6) Undeclared
   (3) Junior   (7) Special
   (4) Senior   Student

5. How large was the community where you spent the majority of your life?
   (1) Less than 1,000
   (2) 1,000 - 4,999
   (3) 5,000 - 9,999
   (4) 10,000 - 49,999
   (5) 50,000 - 99,999
   (6) 100,000 - 299,999
   (7) 300,000+
   (8) Varied throughout life

6. I am: (1) an American citizen
          (2) not an American citizen

7. If not an American citizen, in which country do you hold citizenship?
   _____

8. If not an American citizen, how long have you been in the United States?

_____ Years _____ Months

9. How long have you attended Iowa State University?

_____ Years _____ Months

10. In what college is your major area of study?
    (1) Agriculture
    (2) Business Administration
    (3) Design
    (4) Education
    (5) Engineering
    (6) Home Economics
    (7) Sciences and Humanities
    (8) Veterinary Medicine

11. How many others share your living quarters?
    (1) None
    (2) One person
    (3) Two or more people

12. Highest level of education completed by the main income earner in your family?
    (1) Unknown or none
    (2) Elementary school
        1 2 3 4 5 6 7 8
    (3) Secondary school
        9 10 11 12
    (4) Vocational school
        1 2 3 4
    (5) College/University
        1 2 3 4 5 6 (or more

13. How much time do you spend pursuing hobbies or other leisure activities?
    _____ hours per week

14. Do you live in University housing?
    (1) Yes
    (2) No

15. Present Grade Point Average (GPA) at Iowa state University?
    _____ estimate if exact GPA is unknown
    _____ unknown

ACTUAL AND IDEAL HAPPINESS SCALE

Instructions:

Following is a series of paired statements regarding your state of
happiness in life. Please answer each statement with a whole number
from 1-99 in the space before each statement. You may use the full
range of numbers. Answer "1" if you believe the statment is not con-
tributing to your happiness. Answer "99" if you believe the statement
is contributing substantially to your happiness. Respond "50" if you
are uncertain or neutral about whether the statement is contributing
to your happiness in life.

HOW MUCH IS EACH STATEMENT CONTRIBUTING TO YOUR HAPPINESS IN LIFE?

1	10	20	30	40	50	60	70	80	90	99
is not					uncertain				is contributing	
contributing					or neutral				substantially	

EXAMPLE

```
1.  Making my own decisions.
    60 (a) How much is this element contributing to your
           happiness?
    99 (b) How much do you want this element to contribute
           to your happiness?
```

Explanation: This individual responded with the number 60 to indicate
how "making her own decisions" was contributing to her present happi-
ness. In the second statement she chooses the number 99 to indicate
that she wants this element to be a stronger part of her future happi-
ness.

HOW MUCH IS EACH STATEMENT CONTRIBUTING TO YOUR HAPPINESS IN LIFE?

1. Thinking about goals that I would like to achieve.
   ___ (a) How much is this element contributing to your happiness?
   ___ (b) How much do you want this element to contribute to your
           happiness?

2. Feeling satisfied with my body shape and size.
   ___ (a) How much is this element contributing to your happiness?
   ___ (b) How much do you want this element to contribute to your
           happiness?

3. Being sexually appealing to others.
   ___ (a) How much is this element contributing to your happiness?
   ___ (b) How much do you want this element to contribute to your
           happiness?

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HOW MUCH IS EACH STATEMENT CONTRIBUTING TO YOUR HAPPINESS IN LIFE?

1	10	20	30	40	50	60	70	80	90	99
is not contributing					uncertain or neutral				is contributing substantially	

4. Caring for children.
   ___ (a) How much is this element contributing to your happiness?
   ___ (b) How much do you want this element to contribute to your happiness?

5. Teaching others new skills.
   ___ (a) How much is this element contributing to your happiness?
   ___ (b) How much do you wnat this element to contribute to your happiness?

6. Writing for pleasure.
   ___ (a) How much is this element contributing to your happiness?
   ___ (b) How much do you want this element to contribute to your happiness?

7. Obtaining knowledge by reading.
   ___ (a) How much is this element contributing to your happiness?
   ___ (b) How much do you want this element to contribute to your happiness?

8. Helping others.
   ___ (a) How much is this element contributing to your happiness?
   ___ (b) How much do you want this element to contribute to your happiness?

9. Thinking about the accomplishments I have achieved so far in life?
   ___ (a) How much is this element contributing to your happiness?
   ___ (b) How much do you want this element to contribute to your happiness?

10. Feeling satisfied with my physical appearance.
    ___ (a) How much is this element contributing to your happiness?
    ___ (b) How much do you want this element to contribute to your happiness?

11. Spending time with children.
    ___ (a) How much is this element contributing to your happiness?
    ___ (b) How much do you want this element to contribute to your happiness?

12. Solving work or school-related problems.
    ___ (a) How much is this element contributing to your happiness?
    ___ (b) How much do you want this element to contribute to your happiness?

HOW MUCH IS EACH STATEMENT CONTRIBUTING TO YOUR HAPPINESS IN LIFE?

1	10	20	30	40	50	60	70	80	90	99
is not					uncertain				is contributing	
contributing					or neutral				substantially	

13. Assisting others to meet their needs.
___ (a) How much is this element contributing to your happiness?
___ (b) How much do you want this element to contribute to your happiness?

14. Spending time with one or more close friends.
___ (a) How much is this element contributing to your happiness?
___ (b) How much do you want this element to contribute to your happiness?

15. Investing effort into my personal relationships.
___ (a) How much is this element contributing to your happiness?
___ (b) How much do you want this element to contribute to your happiness?

16. Spending time thinking about future goals in life.
___ (a) How much is this element contributing to your happiness?
___ (b) How much do you want this element to contribute to your happiness?

17. Solving personal problems.
___ (a) How much is this element contributing to your happiness?
___ (b) How much do you want this element to contribute to your happiness?

18. Developing plans to achieve my goals.
___ (a) How much is this element contributing to your happiness?
___ (b) How much do you want this element to contribute to your happiness?

19. Feeling accepted by others.
___ (a) How much is this element contributing to your happiness?
___ (b) How much do you want this element to contribute to your happiness?

20. Having a good relationship with one or more parent.
___ (a) How much is this element contributing to your happiness?
___ (b) How much do you want this element to contribute to your happiness?

21. Volunteering time to help those in need.
___ (a) How much is this element contributing to your happiness?
___ (b) How much do you want this element to contribute to your happiness?

HOW MUCH IS EACH STATEMENT CONTRIBUTING TO YOUR HAPPINESS IN LIFE?

1	10	20	30	40	50	60	70	80	90	99
is not contributing					uncertain or neutral				is contributing substantially	

22. Being concerned about my physical appearance.
    ___ (a) How much is this element contributing to your happiness?
    ___ (b) How much do you want this element to contribute to your happiness?

23. Being a good friend to others.
    ___ (a) How much is this element contributing to your happiness?
    ___ (b) How much do you want this element to contribute to your happiness?

24. Thinking about current academic and/or professional goals.
    ___ (a) How much is this element contributing to your happiness?
    ___ (b) How much do you want this element to contribute to your happiness?

25. Maintaining my health throughout my life.
    ___ (a) How much is this element contributing to your happiness?
    ___ (b) How much do you want this element to contribute to your happiness?

26. Making time to think about current academic and/or professional goals.
    ___ (a) How much is this element contributing to your happiness?
    ___ (b) How much do you want this element to contribute to your happiness?

27. Evaluating others' opinions about my attractiveness.
    ___ (a) How much is this element contributing to your happiness?
    ___ (b) How much do you want this element to contribute to your happiness?

28. Learning new things.
    ___ (a) How much is this element contributing to your happiness?
    ___ (b) How much do you want this element to contribute to your happiness?

29. Writing, related to academic and/or other areas.
    ___ (a) How much is this element contributing to your happiness?
    ___ (b) How much do you want this element to contribute to your happiness?

30. Maintaining a loving relationship with at least one person.
    ___ (a) How much is this element contributing to your happiness?
    ___ (b) How much do you want this element to contribute to your happiness?

APPENDIX F.

INSTRUMENT COVER LETTER TO SUBJECTS

Dear Participant,

You have been chosen as part of a sample of young adults to complete
the attached survey on your own level of happiness and overall satisfac-
tion with your life. I realize that this will take up some of your
time, but in doing so you will be helping us learn more about how
young adults feel about their lives and living in this environment. I
would appreciate your cooperation.

This information will be kept completely confidential; it is for the
purpose of doctoral research. A subject number at the top of your
survey is for the purpose of statistical coding. Your participation
is voluntary and you can choose to stop responding at any time.

If you would like to participate, please answer the questions as
honestly as you can. Thank you!

Sincerely,

Cynthia L. Taylor

APPENDIX G.

INTERNATIONAL COUNTRIES REPRESENTED IN MAIN STUDY

INTERNATIONAL COUNTRIES REPRESENTED IN MAIN STUDY

Africa: Egypt
Gambia
Kenya
Nigeria
Sudan
Zambia

British Isles: United Kingdom

Central America: Honduras

East Asia: People's Republic of China
Republic of China (Taiwan)
Japan

Indo China: Singapore
Sri Lanka
Thailand

Mexico

South America: Argentina
Brazil
Colombia

Southeast Asia: Indonesia
Malaysia

Southern Asia: Bangladesh
India

Southwest Asia: Jordan
Lebanon
Palestine
Turkey

West Indies: Bahamas

APPENDIX H.

INTERNATIONAL GROUP FOLLOW-UP LETTER

IOWA STATE
UNIVERSITY

February 10, 1987

    At the last International Council meeting, January 26, 1987, I spoke briefly about my "happiness" dissertation research project and asked for help from your international group. As a counselor and Ph.D. candidate, I am interested in helping individuals discover more sources of happiness within themselves, with others, and with their lives as a whole. My dissertation addresses happiness from a crosscultural perspective because I think that it is vitally important to be culturally sensitive to the needs of students. If your group would be willing to participate by taking a 15 to 30 minute questionnaire, I believe that this information would make a contribution toward understanding happiness from an international perspective. Early next week I will contact you for your assistance. Thank you and I'll look forward to talking to you soon.

Sincerely,

Cynthia L. Taylor
(515) 294-0270