Dissertations   Graduate College

4-1999

Educational Affirmations for Healthy Self-Esteem- An Exploratory Factor Analysis

Kaye L. Centers
Western Michigan University

Follow this and additional works at: https://scholarworks.wmich.edu/dissertations

Part of the Counseling Psychology Commons, and the School Psychology Commons

Recommended Citation

EDUCATIONAL AFFIRMATIONS FOR HEALTHY SELF-ESTEEM: AN EXPLORATORY FACTOR ANALYSIS

by

Kaye L. Centers

EDUCATIONAL AFFIRMATIONS FOR HEALTHY SELF-ESTEEM: AN EXPLORATORY FACTOR ANALYSIS

Kaye L. Centers, Ed.D.

Western Michigan University, 1999

This investigation explored the underlying constructs of Clarke's Educational Affirmations, a set of 54 statements designed to support the development of healthy self-esteem and the accomplishment of the developmental tasks of the psychosocial stages theorized by Erikson. The Preliminary Educational Affirmations Scale (PEAS), a transformed version of the Educational Affirmations, was devised and administered to 520 community college students. A principal components factor analysis of the results indicates the presence of two main factors that accounted for 28% of the total variance in the data, and offers partial support for the hypothesized factors of worthiness (Being) and competence (Doing).

The scientific literature concerning *affirmations*, the technique of using intentional positive thoughts or statements to bring about or reinforce change in oneself or others, was reviewed and discussed, and suggestions for further research on affirmations in general, and Educational Affirmations in particular, were offered.

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

UMI

UMI Number: 9923737

UMI

300 North Zeeb Road
Ann Arbor, MI 48103

Copyright by
Kaye L. Centers
1999

ACKNOWLEDGMENTS

I wish to thank the many people who supported me in the completion of this dissertation. First, thank you to Jean Clarke, who developed the Educational Affirmations. Her sensitive attention to ideas, issues, and people's needs is peerless. I also wish to thank my dear friend and colleague, Jim Jump, who first suggested that I research the affirmations.

Second, thank you to the members of my committee, Dr. Michael Bahr, Dr. Karen Blaisure, Dr. C. Richard Spates, and Dr. Alan Hovestadt. Thank you to Dr. John Geisler's Dissertation Seminar for ideas and feedback in developing a proposal. A special thanks to Dr. Mary Anderson who went above and beyond the call of duty in giving me guidance and expertise with the factor analysis.

Third, I wish to thank those people who supported me in so many other ways: My mother, Dee Kooyers, and my sister, Wendy VanderVeen, for providing me comfort, merriment, and companionship during this long project; Jill Claeys for her willingness to help gather data; and Phyllis Straw for proof-reading the manuscript.

Last, I wish to thank my husband and best friend, Bill Centers, who provided the financial support, love, and encouragement to help me finish.

This dissertation is dedicated to the *Self-Esteem: A Family Affair* facilitators who helped me to wonder about the value of affirmations: Beth Byerly, Jill Claeys, Jean Clarke, Janet Connors, Susie Craw, Rene Drumm, Mable Dunbar, Pam Ellis, Lynne Frey, Marlene Gauer, Marci Hale, Bob Helmer, Jim Jump, Bertha King, Jane

ii

TABLE OF CONTENTS

Table of Contents—Continued

CHAPTER

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

Are there messages that people can give to children, to themselves, and to each other that will nurture the development of healthy self-esteem, support personal growth, encourage appropriate behavior, and enhance therapeutic change? This question is an important one in the fields of parent education, counseling, and psychology because these messages, or affirmations, may be a simple heuristic tool that can be used many ways to help people. This chapter will present a brief background of the problem, the rationale for the present study, definitions of terms used, and the research question.

Background of the Problem

As noted in Chapter II, affirmations have been used for many years in educational and clinical settings, yet there is a paucity of empirical evidence for their efficacy, and only a few attempts to articulate a theoretical basis for their use. Clarke (1986a) has developed a theory-based set of Educational Affirmations intended to support child development, authoritative parenting, and help for people of all ages. These affirmations have been presented by trained facilitators in Clarke's psychoeducational parenting courses since 1986 (J. I. Clarke, personal communication, July 6, 1996). They have also been used as the major component of an after school child-care program for children 10–12 years old, in healthful living courses at a community college with adults, in jails with female prisoners, in Parents

1

Anonymous groups with abusive parents, and in group and individual therapy settings with adult clients (J. I. Clarke, personal communication, July 6, 1996). Clarke reported that leaders of these programs indicated that many participants have stated that the Educational Affirmations have been very meaningful to them as a source of healing and personal growth (J. I. Clarke, personal communication, July 6, 1996). However, the personal accounts of participants and leaders of small groups testifying to the helpfulness of affirmations need to be systematically researched and transformed into empirical evidence. Until now there has been no research that has attempted to establish the validity or efficacy of the Educational Affirmations, or any systematic investigation concerning if, how, when, or with whom they are salient.

There are many questions to be answered concerning affirmations in general, and Clarke's affirmations specifically. The basic belief underlying the Educational Affirmations is that adults who believe the messages will have healthy self-esteem and will be better able to care for children (Clarke, 1986a). Is this true? Do the affirmations promote healthy human development? Are they a useful way to define and measure self-esteem? Do they affect children differently than adults? Are the affirmations more potent for some populations than others? These exciting questions concerning Educational Affirmations are needing investigation. Before these questions can be explored, however, preliminary investigations are needed.

This study was an initial step toward answering such questions. It was limited to a factor analysis of a transformed version of the Educational Affirmations with a population of adults in order to develop an instrument to facilitate the investigation of the validity of the Educational Affirmations.

Rationale for This Study

Investigating the Educational Affirmations is important for several reasons. First, affirmations are already being used in clinical settings as evidenced by authors in the educational (Campbell, 1991; Clarke, 1978; Clarke & Dawson, 1989; Clarke & Gesme, 1988; Downing, 1986, 1988; Johnson & Daumer, 1993; LaMascus, 1985; McCaffrey, 1986; Valett, 1991) and clinical literature (Altenberg, 1992; Cash, 1997; Copeland, 1996; Coue, 1922; Davis, 1994; Haines, 1997; Jones, 1985; Paulhus, 1993; Salka, 1997; Steffenhagen, 1990). These authors have advocated the use of affirmations, but only Clarke, Coue, Paulhus, and Salka have articulated any specific theory behind their affirmations, and only Paulhus has offered any empirical evidence of their efficacy. Additionally, there is great disparity among these same authors as to how affirmations ought to be constructed and used.

Next, affirmations have been linked to self-esteem (Clarke, 1986a; Steffenhagen, 1990; Valett, 1991). Clarke specifically theorized that her Educational Affirmations help develop healthy self-esteem. Self-esteem is an important concept to study because healthy self-esteem has been shown to be related to healthy functioning and positive adjustment in life; low self-esteem has been related to depression, despair, and maladjustment (Mruk, 1995); and inflated self-esteem may be related to narcissism and antisocial behavior (Baumeister, Smart, & Boden, 1996).

Finally, affirmations, especially Clarke's Educational Affirmations, may be a helpful, simple and low-cost therapeutic, educational, and prevention strategy. For example, teaching new parents to use the affirmations with their babies may help parents understand child development needs. Teaching abusive parents to use affirmations for themselves and their children may help reduce the risk of child abuse.

Teaching adults at risk for substance abuse to use affirmations may prevent relapses or help them in the recovery process. Affirmations may help the healing process for survivors of childhood abuse or victims of trauma. Appropriate types of affirmations may support the development of thoughtful, productive citizens. It seems important to explore the utility of using affirmational techniques for these kinds of costly social and psychological issues.

Definitions of Terms

Definition of Affirmation

Affirmations, in the general sense of saying "Yes!" to people, ideas, and beliefs, have been around for millenniums in the form of warm greetings, blessings, and affirmations of faith. However, the term *affirmation* has also come to mean a conscious and positive thought or statement that is intended to bring about or reinforce change in oneself or others. It is this meaning of the term that will be used in this study.

Definitions of Self-Esteem

Baumeister et al. (1996) defined self-esteem as a favorable global evaluation of oneself. However, this definition may be too general. In an exhaustive review of the literature, Mruk (1995) analyzed and compared the definitions of self-esteem offered by major theorists in the past 100 years that include Bednar, Wells, and Peterson (1989), Branden (1969), Coopersmith (1967), Epstein (1985), James (1890), Pope, McHale, and Craighead (1988), Rosenberg (1965), and White (1963). Mruk concluded that, when studied collectively, there seems to be general agreement

that self-esteem is the personal evaluation of one's competence and worthiness, is both cognitive and affective, and is dynamic (i.e., both stable and open to change). Theorists agree that self-esteem is also socially constructed, that is, affected by what other people say about and to the individual, and how the individual interprets others' actions and messages.

The present study specifically investigated Clarke's Educational Affirmations that she intended to be used as a means to promote healthy self-esteem. Clarke defined self-esteem as "one's assessment of the extent to which one is lovable and capable. Self-esteem is nourished by recognizing one's own lovableness and capabilities and by being recognized as lovable and capable by other people" (1978, p. 272). She also added that it is "behaving in ways that are respectful to ourselves and to other people. It is true humility" (Clarke, Gesme, London & Brundage, 1993, p. 19). Clarke (1978) believes that belief in people's lovableness is reinforced by giving and receiving affirmations for *Being*, that is, unconditional positive messages that affirm people's value and right to exist just because they are alive. Likewise, belief in people's capability is reinforced by giving and receiving affirmations for *Doing*, that is, messages that reinforce positive behavior and that encourage helpful societal values, standards, and limits. Thus, Clarke's definition of self-esteem contains the elements mentioned by Mruk (1995): a dynamic evaluation of one's worthiness (i.e., Clarke's "lovableness"); and socially responsible competence (i.e., Clarke's "capability") that is a result of affective, cognitive, behavioral, and social phenomena.

A person having "high" or "positive" self-esteem in all of the references reviewed by Murk, as well as Clarke, are understood to have a positive sense of valuing oneself and one's creativity and rights, but also a sense of valuing others, and respecting societal rules of safety and social responsibility. However, the terms *high*

self-esteem, positive self-esteem, low self-esteem, and *negative self-esteem* have also been used to describe the promotion of self-centered arrogance (Baumeister et al., 1996). Thus, these terms have become so ambiguous and controversial in the literature that, for the purposes of this study, the term *healthy self-esteem* will be used to distinguish the type of socially responsible self-esteem that the above theorists seem to be advocating, and not the *inflated self-esteem* that is discussed by Baumeister et al.

<div align="center">Research Question and Preview of the Dissertation</div>

This investigation was an exploratory factor analysis of a transformed version of the Educational Affirmations. One goal of the study was to identify factors or constructs that underlie the Educational Affirmations and to compare these to the theory on which they were based. The theory predicts that there should be two underlying independent factors related to lovableness or Being, and to capability or Doing. A second goal of the study was to produce a reliable scale that could then be validated with established self-esteem instruments based on adult norms to see if the affirmations are, indeed, correlated with self-esteem. The final scale could then be used in future research.

Chapter II has four sections. In the first and second sections, the scientific literature concerning affirmations in general will be reviewed. In the third and fourth sections, the literature will be reviewed concerning Clarke's Educational Affirmations, including a description of the affirmations, their development, and underlying theoretical bases. Chapter III will describe the methods used to conduct the factor analysis, and Chapter IV will describe the results. A discussion of the results and their implication for practice and research will be offered in Chapter V.

CHAPTER II

REVIEW OF RELATED LITERATURE

Overview

This chapter reviews the literature related to the study of affirmations. The first section contains an outline of the historical development of the concept of affirmations as a technique, followed by a review of the early and current uses of affirmations in the educational and clinical literature. The second section is a review of the empirical literature related to affirmations. The third section describes Clarke's Educational Affirmations and their development, and the fourth section explains their underlying theoretical basis.

To explore the scientific literature, the researcher entered the following terms into the ERIC, PSYCHINFO, and SOCIOLOGICAL ABSTRACTS databases: *self-esteem, self-statements, development, affirmations, parenting,* and *self-talk.* The literature was then narrowed to the clinical and empirical articles that directly addressed the use of affirmations as intentional positive statements that are supposed to bring about positive change in self or others. The review of literature will be restricted to this topic.

A search in the ERIC system yielded several references to the application of affirmations in educational settings but no empirical studies. Searches in PSYCHINFO, and SOCIOLOGICAL ABSTRACTS databases yielded several

7

references to using affirmational techniques in clinical settings, as well as several

empirical studies related to the concept of affirmations.

Historical Background of Affirmations

The term *affirmation* has come to mean an intentional positive statement that

is supposed to bring about positive change in oneself or others. Although some

authors (Mitchell, 1991; Paulhus, 1993) credit the term and technique to the so-called

New Age movement, the term may have grown out of the efforts by researchers who

explored internal dialogues. For example, Beck (1967) studied severe depression and

concluded that a negative view of self contributed to its development. He noted that

people tended to unreasonably attribute their failures to personal shortcomings, to

focus on negative feedback from others while ignoring positive feedback, and to

make unfounded pessimistic predictions of the future. Ellis (1973) labeled this kind of

thinking "catastrophic," and pointed out that peoples' beliefs that contain words like

must, ought, should, always, and *never* form the irrational thoughts that are the

foundation of catastrophic thinking. Research by Meichenbaum (1976) indicated that

self-statements influence peoples' behaviors and feelings. He developed the technique

of cognitive functional analysis to identify the cognitive antecedents and

consequences of the internal dialogue, especially the inner dialogues concerning self-

appraisals and expectations. He concluded that stress-induced negative inner

dialogues influence the probability of a recurrence of a negative behavior

(Meichenbaum & Turk, 1982). From this research, psychologists have reasoned that

if thoughts influence behavior, then modifying thoughts ought to lead to modified

behavior. For example, if the thought "I need to smoke a cigarette" sets in motion a

series of behaviors that leads to smoking, then the thought "My lungs are clean and

healthy" should reduce the urge to smoke. Affirming the desired outcome is thought to help people change their behavior.

<u>Early References to Affirmations</u>

The earliest reference found in the scientific literature of an affirmation (i.e., an intentional positive statement intended to change behavior) is the repetitional statement, "Every day in every way, I'm getting better and better," presented as a technique to help people overcome a variety of problems. This statement was developed and presented by Coue (1922, 1923) at the Psychological Congress in Paris, France, in 1916 (Paulhus, 1993). Coue had his patients repeat the statement 20 times in the morning and 20 times in the evening. He called the technique *conscious autosuggestion* rather than affirmation. He hoped that a person's psychological makeup could be influenced for the better by the force of frequent self-repetition of this general positive statement. As an outgrowth of psychoanalytical theory, Coue reasoned that frequent repetition of the statement permitted the imagination (i.e., the unconscious) to bypass the will (i.e., the conscious that tends to resist positive change) to allow the positive idea to become inculcated through the natural processes of association and amplification. He believed that the integration of the affirmation would, in turn, lead to better psychological and physical health. Coue stipulated that affirmational statements should be general (i.e., "I am getting better") and not be specific (i.e., "My headache is getting better and better") because the unconscious may focus on the negative aspect (i.e., the headache) and lead to more problems. He also stated that the affirmation should be repeated effortlessly and without thinking so that the will would not resist the message. Although the technique was popular and widely practiced in Europe, Coue's theory was barely known in the United States,

perhaps because most of his papers, published in Europe, were in French. Paulhus (1993) stated that after his death in 1924, Coue's ideas went out of favor, and little became of them. Although there does not appear to be any empirical attempts at the time to validate Coue's theory (Paulhus, 1993), Coue's affirmation is one of the earliest modern uses of an affirmational statement intended to bring about change in people.

It was not until the 1980s that the idea of using affirmational statements to promote growth or change again appeared in the scientific literature. During this time practitioners from several fields began using the term *affirmation* as a technique to promote a variety of outcomes (Downing, 1986, 1988; Jones, 1985; LaMascus, 1985; McCaffrey, 1986).

Current Use of Affirmations

In this section the nonempirical literature that has been published since the 1980s concerning affirmations as they are currently being used in educational and clinical settings will be reviewed. Articles reviewed are primarily theory or thought pieces describing, promoting, or criticizing the use of affirmations. Empirical studies related to the idea of affirmations will be reviewed in the section following this one.

Use of Affirmations in Educational Literature

In an article describing information learned in a personal development class, LaMascus (1985) offered some ideas for helping children learn. She defined affirmation as "a positive assertion of a personal goal" (p. 3), and urged teachers to help students learn the skill of developing self-affirmations to achieve goals. The rules she offered for writing affirmations were that they must be personal, positive, stated

in the present tense, assume success, never include comparison, and contain action words. In a similar article, Downing (1986) urged teachers to help children develop written affirmations and to use them to counter negative self-fulfilling prophecies. He asserted that affirmations should be individualized for each child, and the child should be involved in the actual writing process. The three guidelines he proposed included stating the affirmation as if it was already accomplished (e.g., "I know all of my times tables"), making the goal or objective of the affirmation reasonable for each child (e.g., "I try hard in my math work"), and stating the affirmation in positive terms (e.g., "I behave well in class"). When the child says the affirmation, it should be said as an I-statement as in the above examples, but if a helper offers one, it should be said as a you-statement, such as, "You like school." Downing stated that children should say three to six affirmational statements at least two times every day, with each affirmation repeated at least six times each session. If the child is unable or unwilling to say or to repeat the affirmations, then several adults can offer the affirmations 6 to 10 times a day, but without informing the child of the target behavior and without explaining why. Downing offered three case illustrations where children were successfully dissuaded from negative behavior and self-beliefs by these methods.

In a later article directed at school counselors, Downing (1988) discussed ways they could intervene with depressed children. After careful assessment and monitoring, he suggested that a systematic plan be implemented to help depressed children experience small and attainable success experiences daily and to increase daily activity. Citing anecdotal evidence, Downing suggested that depressed children should be taught the productive use of fantasy, coping and change skills, simple biofeedback techniques, and the use of positive self-affirmations as effective methods to overcome depression.

Guided fantasies, focusing on current behaviors, visualization of goals, and positive affirmations were techniques Campbell (1991) advocated for teachers to use when working with under-motivated students in small groups or in classrooms, although no research was cited to support these recommendations. To develop affirmations, teachers should help children identify their goals, figure out the negative messages they give themselves, and then rephrase the messages in positive terms. For example, the statement "The work is too hard" can be rephrased into the affirmation "I am bright and capable."

Self-affirmation was among the self-management strategies used in model education programs in California to promote self-esteem in children in order to enhance learning (Valett, 1991). Although Valett did not explain how or why they were chosen, he offered nine self-affirmations as ones that all children should say to themselves, including, "I believe that: I am a unique and precious human being; I am my own best friend and my worst enemy; I am self-respecting and conscience free; I am an important part of the universe" (p. 3).

To summarize the current use of affirmations in the educational literature, several authors have promoted their use (Campbell, 1991; Downing, 1986, 1988; LaMascus, 1985; Valett, 1991). However, none of them cited a theoretical basis for the development of affirmations, or any empirical evidence of their effectiveness.

Use of Affirmations in the Clinical Literature

In the fields of psychology and sociology, certain types of affirmations have been identified as clinically useful therapeutic tools. For example, Cash (1997) advocated the use of "Face-to-Face affirmations" (p. 175) as part of a behavioral self-help strategy for people suffering from irrational negative body image problems to

change their negative self-talk. Suffers should stand in front of the mirror once a day, make eye contact with their reflection, and mentally express a positive statement to their bodies for one full minute. Face-to-Face affirmations should be in the form of compliments to the self in recognition of one's physical assets. Examples of affirmations include, "What a nice smile! People love to see me smile"; "I don't have to have a perfect complexion to like myself"; and, "I don't need to be perfect; I can accept myself as I am" (p. 175).

Similarly, Copeland (1996) recommended that clients suffering from depression should develop, and regularly repeat, affirmations, defined as "short positive statements that describe how they would like to feel and how they ideally envision their lives" (p. 255). Examples of affirmations suggested by Copeland are, "I enjoy being alive," "I want to live," and "I am happy" (p. 254).

.Altenberg (1992) explored Eastern and Western medicine for methods to promote holistic healing, and devoted an entire chapter to the topic of affirmations. He stated that affirmations can be created to help overcome any kind of physical, psychological, or spiritual difficulty, or to help focus people on a goal. People should create a positive, present-tense affirmation (e.g., "I am an outgoing person"), and then write it three ways within a 10-line set (e.g., "I, John, am an outgoing person" repeated three times; "You, John, are an outgoing person" repeated three times; "He, John, is an outgoing person," repeated three times, and finally, "I, John, am an outgoing person" [p. 153]). Altenberg stated that, although there is no scientific proof, affirmations work if people repeat them regularly and in a variety of ways.

Jones (1985) reported that she successfully treated seven young women suffering from anorexia nervosa and bulimia by using affirmations as part of her treatment strategy. Her most striking clinical observations when treating these

women were that all of their mothers initially rejected the pregnancy and sought to hide it, all their mothers had difficult deliveries, and many of the baby daughters had to be put in incubators because they were too small. She observed that her clients seemed to be treating themselves as their mothers once did during their early prenatal existence by starving themselves. As part of their recovery, Jones had each woman write down for herself several affirmations concerning her femininity and issues with her mother, such as, "I am not my mother," "I totally forgive my mother for her negative attitudes toward me," and "The more I accept my own femininity, the more love and support I receive." She also had her clients do "Rebirthing" breathing exercises while thinking about the affirmations, a process that was repeated many times. She credits their healing to the "simple techniques known as Conscious Connected Breathing, or Rebirthing, and Affirmations, or Positive Thinking" (p. 6).

Affirmations have also been recommended as a strategy in therapeutic hypnosis. For example, Steffenhagen (1997) listed affirmation as the first of nine hypnotic techniques for building self-esteem. The affirmation Steffenhagen had his clients listen to while in a very relaxed (i.e., hypnotized) state is this version of Coue's (1922) affirmation:

> Every day in every way, you are getting better, better and better. Every day in every way you are becoming more positive, more self-assured, more relaxed, more content. Every day in every way you are becoming better, better, and better. And as you become more confident you will be able to deal with the problems on the material level more effectively, creatively, productively and efficiently. (p. 143)

Davis (1994), a hypnotherapist, also described how she used positive affirmations and visualizations during hypnosis to help her clients change negative unconscious self-talk and beliefs. Like many other practitioners already cited, she stated that affirmations should be positive, simple, in the present tense, and applicable

to the individual. Keys to success are repetition, belief in the affirmations, and the re-education of the unconscious mind. Although she believes that affirmations work without hypnosis, they take longer to work and are less effective. Davis described two cases as examples of how using affirmations led to successful outcomes.

In the area of substance abuse counseling, Haines (1997) identified that the inability to find meaning in life was the existential source of relapse in addiction treatment. She outlined five affirmations of self that she believes to be the most useful for "invading and conquering the existential root of relapse" (p. 40). These affirmations are: "I am someone," "I am an adult," "I have something special to give," "I will not be vanquished," and "I forgive" (pp. 40–41).

Salka (1997), a grief counselor, advocated the use of "Embedded Affirmations," along with metaphors and guided visualization to augment the usual grief counseling techniques of grief process education, exploration of feelings, and support throughout the grieving period. She defined affirmations as positive messages offered to the clients to reinforce and amplify the healthy parts of persons who are often overwhelmed by their fears and anxieties related to grief and prospects for recovery. Her Embedded Affirmations were developed using Ericksonian hypnosis theory and neuro-linguistic programming (NLP) theory and practice. To recreate an affirmation, therapists should listen carefully to the client to determine what representational system (visual, auditory, or kinesthetic) the client uses, and then, using that representational system, frame a therapeutic question or command that includes an embedded affirmation. In the following examples, embedded affirmations are in italics: "I wonder whether or not you *believe you will survive this loss*"; "People don't always know they can *trust the strengths inside them*, do they?" or, "I don't know how soon *you will begin to experience peace in your heart*." Salka

stated that embedded affirmations should be kept simple (i.e., unambiguous) and concise, and should be delivered by a change of tone, tempo, or volume of the therapist's voice, or by some physical behavior, such as nodding or gesturing with the hand, to increase the effectiveness of the message. Salka specifically emphasized that NLP affirmations are powerful techniques, and that "therapists should maintain the utmost vigilance and professional ethics to ensure that Embedded Affirmations given indeed match the client's expressed desired outcomes" (p. 22).

To summarize the current use of affirmations in the clinical literature, many practitioners are advocating the use of affirmations to counter negative internal self-talk and to help people change behavior. Similar to the educational literature, the most frequently recommended form for an affirmation is one stated in the first person, present tense, with a positive goal or idea. Although several authors described case studies or anecdotal support for using affirmations, none of them cited any empirical studies that support the most effective way to create or use affirmations. Coue (1922, 1923) and Salka (1997) were the only ones in this section who articulated any specific theory behind their affirmations, although cognitive-behavioral theory was implied by Cash (1997), Copeland (1996), Davis (1994), and Steffenhagen (1990) in their discussions of negative self-talk.

Use of Affirmations in Other Literature

Self-affirmation became an important motivational strategy promoted by trainers in business. For example, McCaffrey (1986) defined affirmation as "a positive assertion and a means to an end. Affirmations are self-talk" (p. 16). The following quotation lists his rules for affirmation development:

.

a) Choose an internal goal or value ("excellent communicator on the telephone").

b) Strengthen it with specific, positive adjectives ("warm and authoritative").

c) Write the affirmation ("I enjoy having a warm, yet authoritative telephone manner"). (p. 17)

Johnson and Daumer (1993) encouraged the use of mandalas, "other" handwriting, and positive [self-] affirmations to teach managers to access the right brain functions to increase their intuition. Finally, affirmations have been frequently promoted in popular psychology books found in self-help sections of bookstores, although these sources are not necessarily considered scientific literature. Many books promoting affirmations are self-published volumes written as inspiration and support for overcoming alcoholism, codependency, or abusive backgrounds. These affirmations are often similar to the ones mentioned above.

Criticism of Affirmations

In contrast to these enthusiastic efforts to promote the use of positive affirmations, there has been some caution and criticism concerning their use. Mitchell (1991) pointed out that some Judaeo-Christians object to the so-called "New Age" techniques and terminology of Affirmations, Centering, Guided Imagery, Visualization, and Meditation as a violation of their religious beliefs. She stated that these techniques are frequently used in school and business psychoeducational training programs as well as psychotherapy groups and individual therapy. Without describing or defining what is meant by New Age, Mitchell compared procedures and underlying beliefs of each technique to Biblical references. She concluded that all these techniques have a Biblical and spiritual counterpart. The difference is that Judaeo-Christians look to God as the source of power and healing where as the New Agers look to the self. She wondered if these techniques are not really age-old

generic practices that bring relief but have been "packaged" as New Age. Mitchell did not criticize the use of the techniques per se, but rather cautioned practitioners to be sensitive to the needs and beliefs of clients when using them.

On the other hand, affirmations as a form of positive thinking were openly criticized by Holder (1990). In a discussion concerning techniques for helping managers promote motivation among workers, Holder pointed out that positive thinking does not assist people in discovering the causes that limit their motivation. Holder warned that by repressing and refusing to deal with negative thoughts, positive thinking can create unrealistic expectations that can lead people to become depressed when they do not achieve their goals. In other words, the positive-thinking approach may enhance a person's inner conflict and inhibit peak performance. Furthermore, some of the positive thought approaches can be "manipulative, seductive, elitist and treat people immaturely. They have also lead to narcissism and express disrespect towards others" (p. 21). Holder specifically criticized the Dale Carnegie program because he believes it teaches people to manipulate and seduce people by putting them in a positive state of mind through constant approval, rather than promoting critical thinking and mutual respect. Holder also criticized the use of the mind-as-a-computer metaphor, and the use of affirmations that are intended to "program the unconscious" (p. 28) by deleting negative thoughts and inserting positive ones. He warned that this practice may enhance a person's unconscious anxiety and result in focusing on the reverse. Unfortunately, Holder offered little in the way of scientific studies to support his criticisms.

Finally, there is a growing concern about the possible negative social effects of promoting positive self-esteem, and by inference, positive affirmations. It used to be commonly assumed that people who commit violence and verbal aggression suffer

from low-esteem but are trying defend against it through antisocial behavior

(Samenow, 1984). Now these conclusions are being questioned. In an

interdisciplinary review of evidence about the causes of aggression, crime, and

violence, Baumeister et al. (1996) pointed out that it is an overinflated ego, not low

self-esteem, that usually leads to violence.

> On both empirical and theoretical grounds, therefore, we must reject the view
> that low self-esteem causes violence. Aggressive, violent, and hostile people
> consistently express favorable views of themselves. And even if one could
> document hidden low self-esteem beneath the surface of apparently high self-
> esteem (for which empirical support is scant), it would still be necessary to
> regard the surface egotism rather than the hidden self-doubts as causally
> crucial. (p. 28)

> Our review has indicated, however, that it is threatened egotism rather than
> low self-esteem that leads to violence. Moreover, certain forms of high self-
> esteem seem to increase one's proneness to violence. An uncritical
> endorsement of the cultural value of high self-esteem may therefore be
> counterproductive and even dangerous. (p. 29)

Summary of Current Use of Affirmations in the Scientific Literature

As already mentioned, none of the above educational or clinical references

were empirical studies, and none cited research to validate their ideas that positive

affirmations promote positive behavior. With the exception of Coue (1922, 1923) and

Salka (1997), there does not appear to be any particular theoretical organization

within these references as to how affirmations ought to be constructed and used.

However, it appears that the notion of using of affirmations as tools for healing and

growth has taken root in the educational and clinical literature. Finally, although there

seems to be a great deal of enthusiastic support for affirmational techniques, there has

been some criticism that affirmations may offend some people's religious

perspectives, create cognitive dissonance, and promote self-centeredness. In the

following section empirical studies that relate to affirmations as a technique will be reviewed.

Related Empirical Literature

Empirical Studies of Affirmations

This section reviews the empirical literature concerning affirmations. There were five studies found in a computer search of the clinical literature.

Affirmations in the Women for Sobriety Program

The entire membership of Women for Sobriety (WFS), an alcohol treatment program for women that endeavors to enhance their feelings about themselves, was surveyed in an attempt to identify associations between participation in WFS, length of sobriety, and self-esteem (Kaskutas, 1991). In contrast to the Alcoholics Anonymous (AA) program that requires members to surrender to a higher power and to adopt a stance of humility in order to quit drinking, the WFS program believes that female alcoholics need to overcome feelings of helplessness, powerlessness, guilt and dependencies. Therefore, the WFS approach encourages members to embrace a positive view of themselves, and to look to one's state of mind rather than a higher power to overcome alcoholism. WFS members' first affirmation is, "I have a drinking problem that once had me," in contrast to AA's, "We are powerless over alcohol." Although Kaskutas mentions that WFS has other affirmations, she did not state them.

The survey consisted of mailing 822 questionnaires to WFS members at their groups' weekly meetings (there were 157 groups in United States and Canada). There was a 73% ($N = 600$) response rate. The average respondent was 46 years old,

white, married, and had children. This sample was highly educated (i.e., two thirds attended college) and over half were employed in professional or administrative positions. Kaskutas used Rosenberg's 10-item self-esteem scale to measure members' self-esteem because it is the most widely cited source of information about self-esteem among women alcoholics. Next, beliefs and practices were measured by asking participants to respond to the two statements (i.e., "I have a drinking problem that once had me," and "We are powerless over alcohol") using a 4-point Likert scale (i.e., strongly agree, agree, disagree, or strongly disagree). Third, to assess the extent to which the respondents practiced the WFS program, they were asked to answer the question, "How often do you think about the Affirmations?" (i.e., only at meetings, only when I have a problem, almost every day, or every day). Finally, they were asked about their length of sobriety and lengths of membership in WFS and AA. Kaskutas concluded that significant predictors of self-esteem included endorsement of the WFS program beliefs and practices, disbelief in AA's first step (i.e., powerless over alcohol), length of time in WFS, and length of time sober. The researcher noted that a limitation of this survey was that it was subject to self-selection bias. That is, women who may have a fragile self-esteem may have left the program, leaving only those who have a propensity toward stronger self-esteem to represent the WFS members, although the author discounted this idea. This study had several other limitations, however. First, no validity information was offered for the self-esteem instrument other than strong face validity. Additionally, the author did not discuss the possibility that there may be confounding effects on the self-esteem of women in this sample from their relatively high levels of education, maturity, and professional accomplishment. Finally, the survey was designed around the assumption that members' self-esteem was connected to disbelief in AA's first step (i.e.,

powerlessness over alcohol), yet it failed to include questions concerning a multitude of other potential variables that may effect self-esteem.

In terms of affirmations, however, the study brings up two intriguing issues: Do different affirmations lead to different outcomes, and do certain people (in this case, female alcoholics versus male alcoholics) need different types of affirmations? Although the survey fell short as an empirical study, it is important because it tried to compare the power of two specific affirmational statements. In spite of the study's limitations, the researcher at least offered a beginning attempt at studying affirmations offered in the AA and WFS programs. More research is certainly in order.

Subliminal Affirmations

Two studies investigated the effectiveness of subliminal affirmations. Russell, Rowe, and Smouse (1991) investigated the effectiveness of commercially produced subliminal self-help tapes containing affirmations designed to enhance academic achievement. In this study, 76 students enrolled in a career development class were randomly assigned to one of three groups. The first group listened to tapes with subliminal affirmations masked by ocean waves; the second group listened to tapes of ocean waves but no subliminal affirmations; the third group received no treatment. The subjects in the first two groups were asked to listen to the tapes for 10 hours per week; the experiment lasted 10 weeks. The students, on average, actually listened to the tapes over 120 hours a week, far in excess of the manufacturer's recommended 50 hours. Dependent variables were the students' final examination scores from the class and current semester grade point average. The results of a 3 × 5 ANOVA revealed no significant treatment main effect or interaction effect. The researchers

concluded that the study failed to support the use of subliminal tapes for academic improvement. In this study, the subliminal tapes were promoted as containing approximately 80,000 positive phrases affirming improvement in study habits and passing exams, although no examples of the affirmations were provided.

Chakalis and Lowe (1992) tested the effects of specific subliminal positive affirmations for memorizing names and faces that were embedded in relaxing music with 60 university students. Participants were randomly assigned into three equal groups, each with the same number of males and females. For the experiment, all subjects were first shown the same eight photographs of unfamiliar white male adults and told their name and occupation. They were then asked to look at the pictures and recall the two facts (i.e., name and occupation). This sequence occurred three times with the same photos in the same session. After the final trial, subjects were allowed to relax for fifteen minutes. During the relaxation period, one group listened to a relaxing sound cassette, the next received no sound, and the third listened to a cassette of the subliminal affirmation embedded in relaxing music. The authors did not report the actual wording of the subliminal affirmation or whether the message contained only an affirmation or if it also contained the information that was supposed to be memorized. It was explained that the series of messages occurred only once during the 15-minute extract from the cassette. However, they stated that none of the subjects received overt information about what they were hearing.

After the intervention, subjects were again shown the eight photographs and asked to recall names and occupations. Only the subliminal group showed significant improvement over the third trial before the relaxation period, and the improvement was more marked for recall of names rather than occupation. The researchers concluded that the subliminal positive affirmations embedded in relaxing music can

enhance recall performance on everyday memory tasks if the subliminal message is specifically related to the particular memory task. However, this conclusion may be overconfident. Based on their research it seems premature to make such a general conclusion because other types of memory tasks were not tested. The focus of these two studies was on the effectiveness of subliminal or masked messages. It is difficult to draw any conclusions from these studies about affirmations because the actual affirmations were not described or discussed.

Affirmations for Healing

There was one unpublished reference in the psychological literature that was described as a qualitative study of affirmations. In her dissertation, Denham (1993) posed the following research hypothesis: "Verbal, mental, written and imaged affirmation can facilitate emotional, mental healing of internal values and belief systems and subsequent expectations and behaviors by changing internal belief and value systems parameters with words" (p. 10). She asked 13 women and 5 men who volunteered for her project to read aloud sequentially every day a few pages of affirmations from a book of positive affirmations written by herself. When they completed the book, they were instructed to begin anew, and to continue to do this for at least one year. The volunteers reported to Denham "by phone, letter or face to face" (p. 55) at least once every three months. She intended for the experiment to last at least one year or "whatever time it took for me to conclude all doctoral work other than this dissertation. The study has now been running for over three years and will not conclude with this report" (p. 123). Only one person dropped out after completing his obligation of one year. Denham was looking for "subjective changes

for the better in the opinion of the co-researcher and changes for the better in external relationships and/or in work rewards" (p. 56).

Denham offered her own description and interpretation of the personality styles and personal problems of the 17 participants, often in the form of script-role names (i.e., "Annie, the lost princess," p. 60), and then quoted approximately one paragraph of the participants' own words. Each account described the participant's therapy and personal growth, but did not always specifically mention the affirmations. Denham concluded that 16 out of 17 participants showed improved, more life-enhancing patterns of behavior as a result of reading the affirmations as observed by her or by direct report of the participants.

The design of Denham's study prohibits any generalization of results. First, the dissertation lacked a scholarly discussion of the limitations and strengths of her methodology. For example, she mentioned that some of the volunteers were in psychotherapy during the course of the study. She did not discuss whether the therapy, instead of, or in conjunction with, the affirmations, may have led to the positive outcomes she reported for the affirmations. Second, she did not consider the limitations or ramifications of testing the affirmations with "self-selected co-researchers," even though Denham herself explained that four of the women viewed her as a surrogate mother, that at least one openly admitted to being Denham's client, and that others used her services as a psychotherapist intermittently throughout the study. She did not discuss whether dual relationships may have confounded or otherwise influenced the study. Third, Denham, herself, was one of her own participants in the study, yet she did not discuss the issues of being the researcher and a participant at the same time. Fourth, in her description of the data, Denham did not clarify or offer evidence that the therapeutic effects she observed in

the volunteers were directly or uniquely a result of reading the affirmations. Finally, although Denham called this a qualitative study, the study question and design were offered in quantitative language, and she called the project "an experiment." Unlike legitimate qualitative studies, she made sweeping statements of "facts" without documentation (i.e., "Western science . . . is not the clear eyed Athena spring from father Zeus head child of pure philosophy but the bourgeois legitimate offspring of union of European philosophy with Mother Church" p. 126). Although she criticized Western institutions and modes of scientific inquiry as "pseudoscientific, solipsistic, narcissistic perception of man as conqueror and owner of the universe" (pp.126–127), she did not describe or clarify her own approach or theoretical orientation to research or to psychotherapy. Finally, she appeared to draw overly optimistic and unwarranted conclusions without using established qualitative methodology (Denzin & Lincoln, 1994), and without informing the reader how she came to these conclusions. Interestingly, there were at least two cases where Denham did not observe any changed behavior but where the participants believed that the affirmational process helped them, and at least two cases where the participants denied that the affirmations were helpful, but where Denham concluded that they had changed behavior as a result of the affirmations. She did not discuss the discrepancies between her and her co-researchers' assessments. It is unfortunate that the qualitative design of the study was not employed to answer some pressing questions regarding how people construct, use, and revise affirmations; how people incorporate affirmations into daily life; and to what degree people believe that affirmations affect their behaviors, feelings, and attitudes.

Educational Affirmations Research

Preliminary Educational Affirmations Scale

To date there has been only one study conducted directly concerned with Clarke's Educational Affirmations (Centers, Jump, Bahr, & Clarke, 1993). In accordance with Clarke's theory (1986a), it was reasoned that individuals with high self-esteem would believe more of the Educational Affirmations, while individuals with low self-esteem would believe fewer of them. To test this idea, the first author asked 20 Self Esteem: A Family Affair (SEAFA) program facilitators to respond to the 54 Educational Affirmations as items in a true-or-false format. The respondents indicated that responding true or false to the affirmations was too complicated because several affirmations are compound thoughts. Therefore, the first author and Clarke divided the 54 statements into 116 one-thought items that they believed captured the meaning of the original affirmations. The items were then transformed into an I-statement format (e.g., "I love who I am today.") because it was believed it would be easier for respondents to ask themselves the question as an I-statement rather than as a you-statement. Half of the items were then reverse-keyed to control for sterotypical responding (Kaplan & Saccuzzo, 1989).

Next, the 116-item scale was administered to 59 adults enrolled in SEAFA courses at a community college in Southwestern Lower Michigan during the fall of 1991 and the winter of 1992. Participants were asked to respond either "True," if they believed the item, or "False," if they did not believe the item at the time of responding. All participants were unfamiliar with the Educational Affirmations. Demographic information was also obtained from the respondents. From this effort, 50 usable protocols were obtained for analysis. The other 9 were incomplete. Items

with the highest inter-item coefficients (i.e., items that most discriminated people who believed the statements from those who did not) were selected, and more analyses were conducted. The final scale had 34 items, with individual item-correlation coefficients ranging from .45 to .78, with a median coefficient of .57. The Cronbach Alpha reliability correlation for the final 34-item scale was .95, indicating a high degree of internal consistency. This scale was reportedly administered to many SEAFA group participants between 1992 until 1996 (J. I. Clarke, personal communication, July 6, 1996). Many of the facilitators who administered the scale to their groups told the researchers that respondents indicated that the dichotomous scale was difficult to answer and that they would welcome a Likert scale instead. Additionally, although this instrument has face validity, other forms of validity (i.e., content, construct, and concurrent validity) have not been established. The Centers et al. (1993) study is the only known study of the Educational Affirmations, and, as such, directly suggested ideas that needed to be tested in the current study.

Other Empirical Studies Relevant to Affirmations

Affirmation of the High-Power Person

Tjosvold (1978) investigated the consequences of positive evaluations by a low-power person on a high-power bargainer's attitudes and willingness to compromise. In this study, 80 college students were told that they had more bargaining power (i.e., they controlled more of the valued resources) than the other bargainer (i.e., a research confederate). Subjects were teamed individually with research confederates and then were told to negotiate from a particular position. Part way through the 20-minute negotiation, the subjects and confederates completed and

exchanged questionnaires. In the questionnaires, the confederates either "mildly" or "strongly" affirmed the high-power negotiators' (i.e., the subjects') personal effectiveness or their negotiating position. At the end of the negotiations, the subjects indicated whether they had completed the negotiation, and then filled out another questionnaire that included induction checks, and measures of attraction, self-evaluation, and attitudes toward the negotiations.

There were several important results. First, those subjects whose personal effectiveness was strongly affirmed rated a higher level of satisfaction with the negotiation and indicated that they were more attracted toward the other negotiator than those subjects whose personal effectiveness was mildly affirmed. However, these same subjects (i.e., those who received strong affirmation for personal effectiveness) did not reach significantly more agreements with the other negotiator than did the mildly affirmed subjects. Second, the results suggest that those subjects whose position was mildly (as opposed to strongly) affirmed, accepted the other negotiator's final offer significantly more often. Third, subjects whose position was strongly (as opposed to mildly) affirmed did not significantly increase their self-evaluation or attraction toward the other bargainer. Fourth, no main effect was found concerning whether those subjects whose position was strongly affirmed perceived the other negotiator as a weak person who lacked confidence. On the other hand, those subjects whose personal effectiveness was mildly affirmed and whose position was strongly (as compared to mildly) affirmed, believed the other bargainer lacked power. Finally, subjects who had their positions and their personal effectiveness strongly affirmed failed to reach an agreement.

These results suggest that affirmation of high-power bargainers' personal effectiveness by low-power persons tends to make high-power bargainers increase

their self-evaluation and attraction to the low-power persons. However, high-power persons whose personal effectiveness has been strongly affirmed by the low-power bargainers become even more concerned with appearing strong in the conflict and may fail to compromise. Likewise, high-power bargainers whose position has been strongly affirmed may also be unwilling to agree to low-power persons' demands, and may view low-power persons as weak and lacking confidence in their position. The study suggests that persons can distinguish between evaluations of their personal competence and evaluations of their positions and that they respond differently. In short, Tjosvold (1978) concluded that, "results were interpreted as suggesting that strong affirmation of personal effectiveness and position are ineffective ingratiation strategies in conflict" (p. 230).

In Tjosvold's (1978) study, the term *affirmation* was used to indicate some sort of positive evaluation of the position or personal effectiveness of high-power bargainers by low-power bargainers. The study suggests that affirmations tended to change high-power persons' attitudes about themselves, other bargainers and their negotiation positions. However, the article did not report the specific wording of the affirmations, or how strong affirmations differed from mild affirmations.

Automatization of Self-Presentation

Paulhus (1993) briefly described a line of research he and his colleagues have been pursuing to test his theoretical model, based in cognitive psychology theory, of automatic and controlled self-presentation (ACSP). Similar to other automatic and controlled cognitive processes, Paulhus proposed that the aspects of self-presentation observable in self-descriptions is a dynamic system of automatic and controlled processes. *Controlled self-presentation* resembles impression management, and it

requires that the individual have attentional capacity for consideration of the specific self-presentational goal and the specific audience before deciding on a description. On the other hand, *automatic self-presentation* consists of the individual's most well-practiced and most chronically activated set of self-attributes. Paulhus proposed that automatic self-presentations are a positive dynamic default set of self-cognitions that may be overridden in public, but that always remain in force. When people are distracted or are experiencing strong affect, then the automatic, highly practiced, default set of self-presentations will come to the fore as bursts of overly positive self-descriptions. Automatic self-descriptions can be seen in the effects of social anxiety, impulsive bragging, or defensiveness. In short, most people will tend to describe themselves in modest, socially acceptable terms (i.e., controlled self-presentation). However, if one becomes angry (i.e., strong affect), then the automatic self-presentations may surface in the form of defensiveness or assertions of superiority. Since automatic self-presentations do not necessarily present a helpful public image, people will usually attempt to assume a more thoughtful and conscious (i.e., controlled) self-presentation when the distraction or affect has passed.

To test the ACSP model, Paulhus and his colleagues had subjects respond using computer keys to "me" and "not me" while the researchers manipulated subjects' level of emotional arousal and examined its effects on the choice of self-ascribed traits. No details were provided concerning the number of participants or exact form or type of emotional arousal that was administered. Paulhus labeled the results of these experiments a *positivity effect*: The presence of emotional distracters briefly induced the subjects to claim more of the positive, and fewer of the negative, traits than they did in the presence of nonemotional distracters. As a result of this experiment and others only briefly described, Paulhus concluded that the robust

positivity effect is mediated by a reduction in attention that subjects have available for describing themselves. Thus, there are two forms of a person's "true self." One self emerges under instructions to "respond honestly" as subjects reflectively search for information about themselves to make a decision. The other self emerges under distraction, and is observed in mindless or thoughtless self-descriptions.

Paulhus also tested the ASCP model assumption that the default self-presentation has its origin in a lifetime of self-presentational practice by conducting a series of three studies designed to induce new automatic selves. Within each study there was a practice phase and a test phase. In the practice phase, subjects were asked to respond repeatedly 10 times to a set of 12 traits. In the test phase, subjects were asked to respond honestly to the same traits and to forget what they had done during the practice phase. First, an untimed accuracy test was administered, followed by a speeded test where subjects were told to answer as fast as they could. It was reasoned that the ACSP model would be supported to the extent that practice carried over to the speeded test but not to the accuracy test.

In Study 1, one group of subjects was asked to fake good, one group was asked to fake bad, and a control group was asked to practiced honest self-descriptions during the practice session. In Study 2, to determine whether automatization acts on the covert or overt response level, the procedure in Study 1 was repeated but subjects were asked to respond aloud with "yes" or "no" instead of using press-keys of "me" or "not me." Finally, to test whether carryover effects were temporary, Study 1 was again duplicated in Study 3, but instead of the test session being held only 5 minutes after the practice session, the test delay was varied across 10 minutes, 30 minutes, and 24 hours. No information was provided concerning the number of respondents.

The results suggest that there was more carryover for faking good than for faking bad, that subjects assimilated some positive traits into their self-beliefs, and that a repeated denial of negative traits tends to undermine subjects' belief in them. Paulhus concluded that overall the ACSP model was supported by the studies. He also concluded that the studies support and extend Coue's (1922, 1923) idea of conscious autosuggestion, that is, the idea that people can change their self-image through the force of frequent repetition of a positive affirmation. Paulhus' studies did not address whether the changed self-presentation carries over into behavioral change. Paulhus indicated that future studies are planned to test his "repeated affirmation procedure" (RAP), consisting of depressed subjects repeating a nonfocused, nonspecific positive affirmation, in the manner Coue prescribed, to see if there are psychotherapeutic benefits. Overall, the line of inquiry by Paulhus (1993) addressed several issues relevant to the current study including the nature of how and when positive self-statements are inculcated and unconsciously used.

Cognitive Dissonance and Self-Affirmations

There were three studies concerning the role of self-affirmation in cognitive dissonance. The relevance of these studies to the present study will be discussed after all three studies are reviewed.

Studies 1 and 2

In two similar studies described in one article, Aronson, Blanton, and Cooper (1995) examined the relationship between the content of dissonance (i.e., a threat to individuals' views of themselves) with the attractiveness of self-affirmations. In the first study volunteers were told that a university committee needed to hear arguments

on both sides of the issue concerning funding for services for students with disabilities. In order to come to a funding decision, volunteers were needed to write essays that supported the position that services for students with disabilities should be reduced. The researchers assumed defending the reduction of services for disabled students was against the subjects real attitudes toward the issue. They attempted to arouse dissonance within subjects by either requesting (i.e., high choice) or telling (i.e., low choice) them to write essays in support of reducing services to individuals with disabilities on campus, while at the same time letting them know that they had scored high on a measure of compassion on a bogus personality test.

There were two dependent variables. The first was a 15-point attitude rating scale that was used to measure attitudes concerning extension of services and facilities for students with disabilities. All subjects except those in a control group were given the attitude rating scale, but at different times. Half of the essay-writing subjects were given the attitude measure after being briefed about the issue, but before selecting personality feedback; the other half were given it after they had completed selecting personality feedback. The second dependent variable was a 10-domain personality feedback profile. In order to manipulate the affirmational feedback, subjects were told that time constraints prevented them from receiving information concerning their high performance on all 10 of the personality domains. Therefore, subjects who wrote essays were asked to stipulate how many paragraphs of feedback they wanted to hear. The personality domains were all positive, (e.g., compassion, independence, open-mindedness, flexibility, sociability). The researchers reasoned that subjects would want more feedback on some domains over others as a means of self-affirmation to enhance their self-esteem under conditions of dissonance.

The researchers compared the responses on the two dependent measures and the order of their administration to test several hypotheses. Contrary to one hypothesis, subjects did not change their attitude when given an opportunity to offset a threat to self-esteem when faced with dissonance. On the other hand, the results supported the hypothesis that subjects would tend to choose positive feedback from an unrelated domain rather than positive feedback in the threatened domain. In this study, subjects writing counter-attitudinal essays (i.e., against services for students with disabilities) tended to be more interested in feedback about their objectivity and open-mindedness, rather than their compassion. Other results that emerged suggested that subjects who were asked to write counter-attitudinal essays (i.e., high-choice subjects) wanted to see less positive feedback about their independence and tended to request more feedback from particular feedback domains, especially objectivity and sociability, than those subjects who were told to write counter-attitudinal essays (i.e., low-choice subjects).

In Study 2 the researchers changed the amount of dissonance and choice by asking some subjects to write counter-attitudinal essays against services to students with disabilities (i.e., high-dissonance condition), as in Study 1, while other subjects were asked to write such an essay but were told that their essay would have no impact on school policy (i.e., low-dissonance condition). Again, half of the essay writers were given the attitude measure before filling out the self-evaluation measures, while the other half received it afterwards. The dependent measures for Study 2 included a personal attributes scale in which subjects were asked to make a numerical rating on each of 10 traits and then to rate the extent they wanted to be defined by that trait. The traits included such things as compassion, intelligence,

independence, and honesty. The other dependent measure was a 10-item self-esteem scale to measure post manipulation changes in global self-evaluation.

The results of Study 2 suggested that there was less support for services for persons with physical disabilities expressed by subjects in the high-dissonance and the attitudes-first conditions, but no significant effects for either attitude order or its interaction with the dissonance manipulation. The results also suggested that subjects in the high dissonance condition appeared to distance themselves from their conception of themselves as compassionate.

From the results of these studies, researchers concluded that under certain conditions, rationalization by means of attitude change may be the easiest and most effective way to ease psychological discomfort until people are confronted by facts. Then they may change their self-view. The researchers theorized, that in practical terms, this shift may explain why "violence begets violence" as people, after an act of violence, convince themselves that the victim deserves abuse, not only because of postdissonance attitudes about the victim, but also because of multiple routes of self-affirmation that change attitudes about themselves.

These two studies had several limitations, including the fact that only female undergraduate psychology students were tested, and the affirmations (i.e., personality domains) were of interest to the researchers but not necessarily to the subjects.

Study 3

In another study on cognitive dissonance and self-affirmation, Blanton, Cooper, Skurnik, and Aronson (1997) again used the induced-compliance paradigm to demonstrate that dissonance can be exacerbated by reaffirming standards that are violated in the course of the dissonant behavior. While waiting for feedback from a

personality test, subjects wrote counter-attitudinal essays (i.e., essays advocating a cut in funding for disabled students). Of the 91 undergraduates who participated, half were randomly assigned into either high control (HC; i.e., they could choose not to write the essay) or a low control (LC; i.e., they were led to believe that they had little choice except to write the essay) conditions. After completing the essay, subjects received either no feedback, irrelevant feedback (i.e., they were told they were "creative"), or relevant feedback (i.e., they were told they were "compassionate"). Pretesting and a manipulation check ensured that the creativity and compassion feedback was roughly equally important to subjects, and that subjects in the HC condition perceived greater freedom than subjects in the LC condition to write or not write essays. The dependent variable was a questionnaire that asked subjects to rate their attitude towards funding for services for disabled students, essay strength, and perceived freedom of choice. The questionnaire was presented as a separate inquiry that was purportedly for use by the psychology department to keep records on file of students' real opinions. It was predicted that relevant affirmations would increase the need for self-justification. Results of a 2×3 ANOVA suggested that when there was no feedback, subjects in the HC condition changed their attitude toward the funding cuts more than did LC subjects, suggesting the experimental task aroused dissonance in the HC condition. Subjects who were affirmed as creative showed no more attitude change in the HC/high-dissonance condition than those in the LC/low-dissonance condition. However, when subjects in the high dissonance condition were reaffirmed for being compassionate, they reported attitudes that were even more favorable than those reported by high-dissonance subjects who received no feedback. This suggests that relevant affirmations exacerbated the dissonance experienced after the HC advocacy.

The authors interpreted these results to mean that reaffirming subjects' sense of compassion confronted them with the personal standard they had violated when they wrote essays against funding for disabled students. The affirmation drew attention to the dissonant aspects of their own behavior, and made their action more aversive. In other words, affirming a threatened domain had the effect of exacerbating the dissonance, contrary to self-affirmation theory that predicts that dissonance should be eliminated by reaffirming the self-aspect that aroused the dissonance. The researchers concluded that further research is needed to determine whether self-affirmations may reduce dissonance by addressing part of the threat inherent to dissonance arousal or by drawing attention away from it.

Relevance of Self-Affirmation and Cognitive Dissonance Research to Present Study

Because the researchers were testing hypotheses generated by a theory about cognitive dissonance (Steele, 1988) that self-esteem strategies would be used to resolve cognitive dissonance, their research was focused on the process of self-affirmation rather than the content (i.e., actual wording of affirmations). In the Aronson et al. (1995) study, self-affirmations were not any specific statements, were not generated by the subject, and were not related to development. Rather, the affirmations were in the form of telling each subject that she had very high scores on 10 personality domains without any definitions. The researchers believed that by the subject being forced to choose which domain the subject wanted the most feedback on, she was choosing a self-affirmation. In the Blanton et al. (1997) study, the affirmation consisted of feedback chosen by the researchers on either compassion or creativity. Although not directly related to the present study, these three studies

suggest that self-affirmations are far more complicated than merely focusing on a goal and saying the words. For example, dissonance may be aroused when people are asked to say, "I am smart" when, in fact, they do not believe they are. Questions remain about how affirmations affect people's behaviors and development.

Theoretical Framework of Educational Affirmations

Introduction

In 1978 Clarke published an early attempt to promote the use of messages as a means to consciously shape self-esteem in her *Self Esteem: A Family Affair* (SEAFA) program. In this theory-based psychoeducational parenting course, Clarke combined the belief in the need for healthy self-esteem and the need for authoritative parenting practices. The major premise of the SEAFA program is that "people whose needs are met give better child care than people who are needy" (p. iv).

Development of Educational Affirmations

As she was designing and testing the techniques used in SEAFA, Clarke discovered Levin's (1974) therapeutic "new messages" targeted for the developmental stages postulated by Erikson (1963). Levin's new messages were designed to release adults from old internalized negative dysfunctional messages (Clarke, 1986a). Levin also used the term *recycling* to name Erikson's (1963, 1983) concept that adults need to redo early developmental tasks in more adaptive and sophisticated ways. Applying this concept to parenting, Clarke (1978) suggested that parents often refocus on or recycle, in a more sophisticated way, a developmental task that their child is doing. For example, the first task of a baby is to develop basic

trust in the caregivers, itself, and the world. Parents of an infant must care for the child so that the baby trusts that it is all right to be alive. However, the job of caring for an infant so it can learn to trust can be exhausting, and parents often find themselves tired and lonely. They may need the care of their own parents (i.e., the grandmothers and grandfathers of the baby) or others, so that, like their baby, they can get their needs for sleep and food met, take care of their committed relationship, and learn to trust themselves and each other again now that they are parents.

Clarke (1986a) wondered if Levin's new messages (i.e., therapeutic releasers) would help children do their developmental tasks the first time around, as well as help parents in their parenting efforts. She incorporated Levin's messages into her SEAFA program to test her idea. She also renamed Erikson's (1963) developmental stages with words that parents could understand. Clarke knew from the beginning that Levin's messages were incomplete for child-development purposes. Over the next few years, she worked on creating "bare-bones" affirmations and heuristic techniques that would tell parents and others who care for children (e.g., child-care workers and teachers) what they should be doing and saying to children in order to help them accomplish their developmental tasks. Clarke theorized that when people believe these messages and act on them, they will have healthy self-esteem.

By 1984, Clarke was field testing what she called her Educational Affirmations (described below), and published the copyrighted version in 1986. These affirmations have been incorporated into later books and programs including *Help! For Parents of Different Ages* (Clarke, 1986b), *Affirmation Ovals: 139 Ways to Give and Get Affirmations* (Clarke & Gesme, 1988), *Growing Up Again* (Clarke & Dawson, 1989), and *Help! For Kids and Parents About Drugs* (Clarke et al., 1993). In addition to listing them in her books, Clarke offers a reproducible two-page sheet

(Appendix A) listing all of the affirmations, their appropriate stages, and instruction for their use. She also offers the affirmations printed in sets of 54 color-coded, punch-out paper ovals.

Purpose of the Educational Affirmations

The 54 affirmations are based on an underlying theoretical belief that people need to be affirmed for Being and Doing throughout their development. The affirmations are designed to affirm people's ability to complete the theorized tasks of the seven developmental stages, described in the next section. The Educational Affirmations are intended to be used three ways (Clarke, 1996):

1. First, they are aimed at children to help them decide to do the task of each developmental stage. However, in addition to offering children affirmations, parents must also teach and support the skills that are needed for children to actually accomplish the task.

2. Next, they are designed to be a bare-bones parenting program as reminders to parents about what they should be saying and doing with their children to promote children's development.

3. Finally, the affirmations are recycling messages for all adults to finish and strengthen earlier developmental tasks in more sophisticated ways and to continue working on tasks of adulthood. The belief here is that if adults have not incorporated and integrated these messages and accomplished the related developmental task, they will be unable to offer them effectively to children.

Description of Clarke's Educational Affirmations

Clarke's affirmations consist of 54 statements that are divided into seven stages based on Erikson's (1963, 1983) psychosocial stages (see Figure 1). All of the 54 affirmations were designed to be positive (i.e., they do not contain the words "don't") and simple enough so they do not need to be explained or interpreted. The stages are named for the major developmental tasks of each developmental level. The age ranges suggest the chronological time at which each message first receives strong focus as a developmental task even though it may be present before and after that stage. After that particular age people may refocus on each task many times in response to life experiences and eras of natural growth (Clarke & Gesme, 1988).

The first six stages contain 7 affirmations each, while the Adult stage, which is the longest one, contains 12. The colors of the rainbow were chosen to color-code developmental stages "to remind us that the tasks are natural and sequential" (Clarke & Gesme, 1988, p. vii). The last affirmation in each stage (the last two affirmations in Stage VII) are the only affirmations that contain the word "love." These eight statements form a subset of messages called Love Affirmations that say "I love you unconditionally for being yourself and for doing your developmental tasks" (p. vii). Figure 1 lists each stage, its name, the ages at which it first is emphasized, its color-code, and the affirmations for the stage. Love affirmations are identified.

Rules for Giving Educational Affirmations

There are rules about giving Educational Affirmations to self and others (Clarke & Gesme, 1988). Adults are encouraged to give affirmations to themselves even when they do not believe them because it is believed that the affirmations

Stage I, Being, 0 to 6 months (Red)

Affirmations for Being

- I'm glad you are alive.
- You belong here.
- What you need is important to me.
- I'm glad you are you.
- You can grow at your own pace.
- You can feel all of your feelings.
- I love you and I care for you willingly. (Love affirmation)

Stage II, Doing, 6 to 18 months (Orange)

Affirmations for Doing

- You can explore and experiment and I will support and protect you.
- You can use all of your senses when you explore.
- You can do things as many times as you need to.
- You can know what you know.
- You can be interested in everything.
- I like to watch you initiate and grow and learn.
- I love you when you are active and when you are quiet. (Love affirmation)

Stage III, Thinking, 18 months to 3 years (Yellow)

Affirmations for Thinking

- I'm glad you are starting to think for yourself.
- It's okay for you to be angry, and I won't let you hurt yourself or others.
- You can say no and push and test limits as much as you need to.
- You can learn to think for yourself and I will think for myself.
- You can think and feel at the same time.
- You can know what you need and ask for help.
- You can become separate from me and I will continue to love you. (Love affirmation)

Stage IV, Identity and Power, 3 to 6 years (Green)

Affirmations for Identity and Power

- You can explore who you are and find out who other people are.
- You can be powerful and ask for help at the same time.
- You can try out different roles and ways of being powerful.
- You can learn the results of your behavior.
- All of your feelings are okay with me.
- You can learn what is pretend and what is real.
- I love who you are. (Love affirmation)

Figure 1. Clarke's Educational Affirmations.

Stage V, Structure, 6 to 12 years (Light Blue)

Affirmations for Structure

- You can think before you say yes or no and learn from your mistakes.
- You can trust your intuition to help you decide what to do.
- You can find a way of doing things that works for you.
- You can learn the rules that help you live with others.
- You can learn when and how to disagree.
- You can think for yourself and get help instead of staying in distress.
- I love you even when we differ; I love growing with you. (Love affirmation)

Stage VI, Identity, Sexuality and Separation, Adolescence (Dark Blue)

Affirmations for Identity, Sexuality, and Separation

- You can know who you are and learn and practice skills for independence.
- You can learn the difference between sex and nurturing and be responsible for your needs, feelings, and behavior.
- You can develop your own interests, relationships, and causes.
- You can learn to use old skills in new ways.
- You can grow in your maleness or femaleness and still be dependent at times.
- I look forward to knowing you as an adult.
- My love is always with you. I trust you to ask for my support.
  (Love affirmation)

Stage VII, Interdependence, Adult (Violet)

Affirmations for Interdependence

- Your needs are important.
- You can be uniquely yourself and honor the uniqueness of others.
- You can be independent and interdependent.
- Through the years you can expand your commitments to your own growth, to your family, your friends, your community, and to all humankind.
- You can build and examine your commitments to your values and causes, your roles, and your tasks.
- You can be responsible for your contributions to each of your commitments.
- You can be creative, competent, productive, and joyful.
- You can trust your inner wisdom.
- You can say your hellos and good-byes to people, roles, dreams, and decisions.
- You can finish each part of your journey and look forward to the next.
- Your love matures and expands. (Love affirmation)
- You are lovable at every age. (Love affirmation)

Figure 1—Continued

Source: Clarke, J. I. (1986). *Help! For parents of different ages.* Minneapolis, MN: Daisy Press.

encourage the healthy, loving part of oneself. However, there are precautions about giving affirmations to others. For example, people should not give an affirmation to someone else if they do not feel and believe it themselves because the receiver may sense the giver's conflict and feel confused instead of affirmed. If adults cannot give some of these messages to a child, they should do what they need to do to take care of themselves (e.g., get help, rest, education, therapy) so that they can believe the messages and give them sincerely. Finally, it is also important that care-giving adults (i.e., parents and teachers) must be available and willing to help children learn the skills necessary for them to accomplish the developmental task that is being affirmed.

Overview of Theories

The theoretical frameworks that underlie the Educational Affirmations are Transactional Analysis (TA) and Erikson's (1963, 1983) psychosocial developmental theory. In this section the important components of TA as they apply to the affirmations will be outlined. Erikson's theory will also be described, followed by an overview of how the Educational Affirmations are related to his theory.

Transactional Analysis

Transactional Analysis (TA) is a theory of personality that was postulated by Eric Berne in the 1950s. The key parts of the theory that apply to the affirmations are as follows:

> TA adheres to the presence of three active, dynamic, and observable ego states labeled the Parent, the Adult, and the Child, each of which exits and operates in any individual. Each person has a basic innate need for strokes (recognition) and will design a life script (plan), formed during childhood, based upon early beliefs about oneself and others. These existential beliefs are reinforced by repetitive, stereotyped games (unstraight social interactions) with others. (Dusay & Dusay, 1989, p. 405)

Dusay and Dusay explain that each ego state is characterized by its own "mannerisms, a special repertoire of words, thoughts, emotions, body postures, gestures, voice tones, and expressions" (p. 406). The Child acts and sounds like an actual child regardless of the individual's chronological age, whereas the Adult resembles a computer that processes information in a logical, factual way. The Parent is the internalized representation of the individual's familial and cultural stories, behaviors, and values, as well as one's actual parents. The ego states are capitalized to distinguish them from the biological entities of parents, adults and children.

TA holds that human beings need strokes (i.e., units of attention) to survive and that humans engage in transactions to get and give strokes. Transactions occur between the ego states within individuals and between people. The transactions can be analyzed for their social and overt level as well as their psychological and covert level of communication. Psychological games and intimacy are the most powerful ways of giving and getting strokes. A psychological game is a set of hurtful, covert transactions that leads to a payoff of negative strokes, whereas intimacy is a set of unconditional healthful transactions that leads to a payoff of positive strokes. Other types of transactions may lead to positive or negative strokes, but these are not as potent as games or intimacy. It is the accumulation and perpetuation of the quality and quantity of positive and negative strokes that contributes to one's life script. That is, the more people receive and invite positive (or negative) strokes, the more likely people are to believe that they deserve positive (or negative) strokes. Based on the kinds of strokes people take in, individuals decide early in childhood on their life script, and live their life according to this unconscious but potent script. In psychotherapy, TA therapists attempt to help clients discover, analyze, and replace negative scripts, messages, and decisions with more adaptive and positive ones.

Clarke's Use of TA Theory

Clarke utilized several TA concepts as a basis of her SEAFA program. Most behavioral parenting programs focus on teaching parents how to act authoritatively; these programs presume that parents are motivated and capable of acting appropriately. Clarke, however, focuses on the parents' need to feel good about themselves as persons and on their abilities as parents so that they can perform authoritatively. As mentioned above, Clarke's major premise is that parents must take care of their own needs, including their need for self-esteem, in order to give effective care to their children.

In the SEAFA program, Clarke (1981) teaches parents about how the ego states function as parts of the personality in normal development. The Parent is called the Nurturing and Structuring Part, the Adult is called the Problem Solving Part, and the Child is called the Spontaneous and Adaptive Part. The program teaches skills that enhance the positive development of each personality part. Parents are encouraged to replace unhelpful or dysfunctional aspects of their own personality with more adaptive ones as they are learning to offer helpful and healthy messages to their children. Clarke believes that it is up to parents to offer healthy messages and to teach children behavioral skills in order to invite their children to have positive self-esteem and constructive life scripts, but it is up to children to decide what messages they will hear.

Clarke (1996) believes the healthy messages that parents need to give to their children and themselves are contained in the Educational Affirmations. In line with TA theory, affirmations are intended to be offered internally from adults' Parent ego states as invitations to their own internal Child ego states to consider the message.

Therefore, all of the affirmations are stated in the form of you-statements. The messages are offered as you-statements until the inner Child spontaneously changes the message to an I-statement. For example, a woman may say to herself, "You can think and feel at the same time" as an invitation to her inner Child to trust and accept that her inner Parent will allow the Child to have strong feelings and protect the her from negative self-talk, while expecting that she will think about consequences before acting. When the inner Child believes the message, it is internalized and spontaneously becomes, "I can think and feel at the same time."

In the same manner, affirmations are also stated as you-statements from an adult caregiver's Parent ego state to children's Child ego states as permissions for children to do their developmental tasks. It is hoped that children will incorporate the message into their developing internal structure and rules. Again, according to TA theory, children will spontaneously change the *you* to an *I* when they understand and believe the message. For example, every time a father notices his daughter acting too shy or too rebellious when faced with conflict, he might give her the affirmation, "You can learn when and how to disagree." He must also explain and demonstrate how and when to disagree with others politely and effectively. After many times and ways of offering this affirmation, the daughter may eventually incorporate this message so that when she needs to disagree with a powerful figure in her life like a boss or a spouse, she will have the courage (i.e., internal permission) and skills to do so assertively. She will be able to say to herself, "I can know when and how to disagree." This internalized affirmation allows her to continue learning new times and ways to do necessary conflict as an adult. This process is thought to reduce cognitive dissonance and rationalizing and, thus, promote personality integrity (Festinger, 1957).

The choice of which affirmation to give is determined by the developmental

stage of each person or the current need of each person. Psychosocial developmental

theory forms the conceptual framework for Clarke's stages.

Psychosocial Developmental Theory

Erikson (1963, 1983) postulated his theory of psychosocial development as

an outgrowth of Freud's psychosexual development ideas. Erikson stressed the social

aspects of development and the interface of society and the developing person.

Erikson divided childhood into stages that approximated Freud's stages. However,

his stages were defined "in terms of modes of action employed by the child and the

modalities of social interaction characterizing interpersonal exchanges at each stage"

(Achenbach, 1992, p. 661). Erikson theorized that psychosocial stages occur through

the process of *epigenesis*, that is, the development of new characters from an initially

undifferentiated entity.

> This indicates that *each part exists in some form before "its" decisive and critical time normally arrives and remains systematically related to all others so that the whole ensemble depends on the proper development in the proper sequence of each item.* Finally, as each part comes to its full ascendance and finds some lasting solution during its stage . . it will also be expected to develop further under the dominance of subsequent ascendancies and most of all, to take its place in the integration of the whole ensemble. (Erikson, 1983, p. 29)

In other words, Erikson maintained that failure of the appropriate mode to

dominate a stage may disrupt subsequent stages, much the way a developing embryo

would be disrupted if its heart, for example, was not developed well enough before

its ribs or legs. The heart, in this case would atrophy, and the embryo would die or be

malformed. In the psychosocial sense, Erikson theorized that the needs of the

developing person are all present at any one time, but some needs come into

ascendance before others. If these needs are not attended to by the social context in a timely manner, the individual is hindered in development. These needs are thought of as developmental crises or nuclear conflicts. Erikson suggested that each particular stage has a fundamental crisis that must be resolved if the individual is going to grow into a functioning, moral and social person. For example, in the first developmental stage, the nuclear conflict is basic trust versus basic mistrust. If the parents meet babies' needs, children are likely to develop a basic sense of trust in their world, their parents, and in themselves. If this basic trust is developed, children will be able to later go out into the worlds of school and dating. If it is not developed, children are hindered in their ability to go into strange places like school or work and to make friends and other relationships. Erikson (1963) originally postulated seven developmental psychosocial stages, but later (1983) added an eighth stage. Table 1 is a chart of Erikson's eight stages.

Erikson's theory engendered much research. In a review of the literature Achenbach (1992) pointed out that

> several studies have found evidence for sequences of conflictual concerns like those that Erikson hypothesizes . . . Even though the hypothesized conflicts do seem to exit, however, these studies have suggested that some conflicts typically remain salient even as later ones rise and fall. (p. 662)

He suggested that "an interweaving of Piaget's theory and Erikson's theory, in particular, can provide a sense of understanding normal development and its problems" (p. 662).

Educational Affirmations and Psychosocial Stages

Clarke's developmental stages are similar to Erikson's, but are described by the developmental task that needs to be accomplished rather than the chronological

Table 1

Erikson's Psychosocial Stages of Development

	Stages	Psychosocial Crises	Radius of Significant Relations	Basic Strengths	Core Pathology
I	Infancy	Basic Trust versus Mistrust	Maternal Person	Hope	Withdrawal
II	Early Childhood	Autonomy versus Shame, Doubt	Parental Persons	Will	Compulsion
III	Play Age	Initiative versus Guilt	Basic Family	Purpose	Inhibition
IV	School Age	Industry versus Inferiority	Neighborhood, School	Competence	Inertia
V	Adolescence	Identity versus Identity Confusion	Peer Groups and Outgroups; Models of Leadership	Fidelity	Repudiation
VI	Young Adulthood	Intimacy versus Isolation	Partners in friendship, sex, competition, cooperation	Love	Exclusivity
VII	Adulthood	Generativity versus Stagnation	Divided labor and shared housework	Care	Rejectivity
VIII	Old Age	Integrity versus Despair	"Mankind" "My Kind"	Wisdom	Disdain

Source: Erikson, E. H. (1983). *The life cycle completed* (pp. 32–33). New York: Norton.

stage of life (Clarke & Dawson, 1989). The following is an overview of Clarke's stages compared to Erikson's.

Stage I: Clarke's Stage I, Being, which begins at birth to about 6 months, includes Erikson's Stage I (Infancy) and his psychosocial crisis Basic Trust versus

Mistrust. During this stage babies must decide "to be," that is, to decide to trust that adults will meet their needs by being nourished, cuddled and cared for when they call or cry.

Stage II: Clarke's Stage II, Doing, from about 6 months to about 18 months, includes Erikson's Stage II (Early Childhood) and his psychosocial crisis Autonomy versus Shame, Doubt. The Doing Stage is a time when it is important for children to decide to trust others, to explore their world, to trust their senses, to be creative and active, and to get support while doing all these things.

Stage III: Clarke's Stage III, Thinking, from about 18 months to about 3 years, includes Erikson's psychosocial Stage III (Play Age) and his psychosocial crisis Initiative versus Guilt. During this stage children begin to separate from parents and learn to think and solve problems. They must learn to express and handle feelings, especially feelings of anger.

Stage IV: Clarke's Stage IV, Identity and Power, from about 3 years to about 6 years, continues Erikson's psychosocial Stage III. The tasks of this stage focus on play and learning activities that help children establish individual identities, learn skills, and figure out roles and power relationships with others.

Stage V: Clarke's Stage V, Structure, from about 6 years to about 12 years, includes Erikson's psychosocial Stage IV (School Age) and his psychosocial crisis Industry versus Inferiority. In this stage children learn more about familial and social structure and rules. They install their own internal structure including an understanding of the need for rules, the freedom that comes from having appropriate rules, and the relevancy of rules. Examining the values on which rules are based is important. Another major task of this stage is acquiring many kinds of interpersonal, social, and academic skills.

Stage VI: Clarke's Stage VI, Identity, Sexuality, and Separation, from about 13 years to about 19 years, includes Erikson's psychosocial Stage V (Adolescence) and his psychosocial crisis Identity versus Identity Confusion. During this stage adolescents focus on personal identity, separation from the family of origin, and sexuality. They make some of their identity and separation choices by recycling the tasks of earlier stages (i.e., Being, Doing, Thinking, Identity and Power, and Structure) with sexuality added.

Stage VII: Finally, Clarke's Stage VII, Interdependence, adult ages, includes Erikson's psychosocial Stages VI, VII, and VIII (Young Adulthood; Adulthood, and Old Age) and his psychosocial crises Intimacy versus Isolation, Generativity versus Stagnation, and Integrity versus Despair. The developmental tasks of adulthood focus on becoming psychologically independent from families of origin, and then interdependent with other adults. Adults must also establish life work, causes, and commitments. Adulthood also includes regular recycling of earlier tasks in ways that support the adult tasks.

Summary

In this chapter, in addition to the empirical studies that tested affirmations as a technique for growth and healing, literature that described ways that affirmations are being used and discussed was also reviewed. The review of literature suggests that affirmations are being used in many settings as educational and therapeutic tools, but there is a paucity of research that addresses the process or content of creating affirmations, as well as establishing the outcomes of using affirmational techniques.

This chapter also reviewed the process and content of how Clarke's Educational Affirmations were created, as well as the theories that underlie them. In

the next two chapters, the methodology and results of a factor analysis that sought to

identify the underlying constructs of the Educational Affirmations will be explained.

CHAPTER III

METHODOLOGY

Introduction

The present study was an exploratory factor analysis of a transformed version of Clarke's Educational Affirmations (Clarke, 1986a) based on adult norms. The theory that underlies the affirmations predicts that there should be two orthogonal or independent underlying factors, Being and Doing, or alternately, seven intercorrelated or oblique factors representing the tasks of the seven developmental stages (i.e., Being; Doing; Thinking; Identity and Power; Structure; Identity, Sexuality, and Separation; and Interdependence).

This chapter will describe research methods used in this study, including the sample of participants, the construction of the instrument used in the study, the demographic questionnaire, the procedures that were followed to collect the data, the principles of factor analysis, and an overview of the steps taken for this factor analysis.

Sample

Participants consisted of 520 students (62% female, 38% male) enrolled in a two-year community college in Southwest Lower Michigan ranging in age from 17 to 75 years (mean age, 25.7 years; median age, 22 years; bimodal ages, 19 and 30 years). The majority, 60%, were single; 30.5% were married or partnered; 7% were

divorced; and 3.5% were widowed. Sixty-four percent of the sample had no children, while 36% were parents. Almost 77% of the sample were white, 12.5% were African American, and 10.5% were of other ethnic backgrounds. Forty-four percent of the sample reported annual incomes of $20,000 or less, 34.5% had incomes up to $50,000, and 21.5% had incomes above $50,000. Seventy-seven percent of the sample had high school diplomas, 18% had associate degrees, and 5% had four-year college degrees. Descriptive data for this sample was computed using MINITAB and the Statistical Package for Social Sciences (SPSS; Norusis, 1990) software.

All the participants were enrolled in a general education course required of all students entitled, "Healthful Living." It was reasoned that a sample taken from a required course would be more representative of the school's population than a sample drawn from elective courses. The researcher's colleague volunteered the use of her classes, and appropriate consent was obtained from the director of the department. Participation in the study by the students was completely voluntary and no recriminations were made against students who chose not to participate.

To protect the rights and welfare of the participants in this study, the proposal was submitted for approval to Western Michigan University's Human Subjects Institutional Review Board (HSIRB) (see Appendix K). All criteria established by the HSIRB for this type of research were followed.

Instrumentation

Instrument Construction

Transformations of the Affirmations

To begin the study, a first draft of the Preliminary Educational Affirmations Scale (PEAS) based on the 116 items used in the Centers et al. (1993) study was devised. In the Centers et al. study, the original 54 affirmations were divided into 116 one-thought statements that the researchers believed captured the meaning of the original affirmations. The items were then stated in an I-statement format (e.g., "I can grow at my own pace" instead of "You can grow at your own pace"). An expert rating analysis of the 116-item scale was conducted using a procedure described in Cohen, Swerdlik, and Smith (1992). A panel of three judges, who were certified *Self-Esteem: A Family Affair* (SEAFA) facilitators with 24 years combined experience using Clarke's affirmations, was asked to rate the extent to which each item accurately reflected Clarke's meaning of the affirmations: Accurately (3 points), Fairly Well (2 points), or Not at All (1 point). The responses were pooled and the number of points tallied for each item. Each item could have values ranging from 3 to 9 points. Because the researcher wanted a high agreement rate for each item, the criterion for keeping items on the PEAS was a combined judges' rating of at least 7 points. This procedure resulted in 13 items being deleted from the first draft of the PEAS, for a final total of 103 items.

PEAS Items

As described above, 103 items were selected by an expert rating analysis of the 116 items in the Centers et al. (1993) study. Half of the items were reverse-keyed to allow identification of any stereotypical response styles (Kaplan & Saccuzzo, 1989). The respondents were asked to mark the number corresponding to how strongly they believed each statement along 7 points on preprinted answer sheets: (0) Never True, (1) Rarely True, (2) Seldom True, (3) Sometimes True, (4) Often True, (5) Usually True, (6) Always True. The resulting PEAS questionnaire can be found in Appendix B.

A 7-point scale rather than the more typical 5-point scale was chosen because it was hoped that a 7-point scale would be more sensitive. In a review of the literature on Likert scale development, Munshi (1990) noted that Likert scales with 7 points that are symmetrical but not at equal distances tend to generate data that can be used as interval data. Such scales have a lower measurement error and higher precision than 5-point equal interval scales. Munshi concluded that subjects want to make an important distinction between strong agreement and unqualified support, and that 7-point scales allow for this distinction. It was reasoned that this type of Likert scale would not only differentiate those who believed the affirmations from those who did not, but would also be sensitive to the saliency of the respondents' beliefs.

Demographic Data Form

Because the use of the Educational Affirmations with various subpopulations was of interest to the researcher, data were collected to identify several groups of

adults for further analysis of their responses as well as for descriptive purposes. A demographic data section of the PEAS asked respondents to give information concerning their age, sex, marital status, number of children, educational level, ethnicity, income, employment status, and sexual orientation. Additionally, the respondents were asked to self-identify, without any particular definitions provided, if they had any history of physical, sexual, or substance abuse, and/or psychotherapy experiences. The Demographic Data Form can be found in Appendix C.

Final Instrument

The final pencil and paper instrument consisted of a printed protocol with the PEAS items (Appendix B) and Demographic Data Form (Appendix C). Answers were filled in on a separate answer sheet (Appendix D) which could be scanned by a computer to prepare data for analysis.

Data Collection Procedures

Data collection occurred during the last weeks of the fall semester of 1996, and the first weeks of the winter and spring semesters of 1997. The researcher trained the department director, who in turn trained the classroom instructors on how to present the instrument to potential respondents. A script (Appendix E) was provided for the instrument administrators. The students were read and handed a letter (Appendix F) that informed them of the purpose of the study, the benefits and risks of participating, and assurance of complete anonymity. In order to maximize the number of completed protocols, participants were offered an immediate reward for participating in the study of a small bag of candies or pretzels after completing the protocol. When the students handed in the completed protocols, the instructors

placed them in a sealed envelope. The researcher collected the envelopes later.

Because the instructors did not read the protocols and the researcher did not see the

respondents, anonymity of the respondents was preserved. After all of the protocols

were collected, the researcher issued an identification number to each one to aid in

computer sorting and analysis. Of the 533 protocols collected, 520 protocols were

used for analysis; 13 protocols were unusable because they were less than half

finished, had stereotypical responses (e.g., all 0s), or were otherwise damaged.

Data Management and Analysis

Principles of Factor Analysis

Definitions

A *factor* is a construct or hypothetical entity that is assumed to underlie a

larger set of variables. *Factor analysis* refers to a variety of statistical methods for

reducing the number of variables and for determining the nature of the underlying

factors among a larger set of variables. It is also used to test hypotheses about the

relations among variables (Kaplan & Saccuzzo, 1989; Kerlinger, 1973; Kim &

Mueller, 1978a).

Postulates of Factor Analysis

There are two major postulates or assumptions in factor analysis: the

postulate of factorial causation and the *postulate of parsimony* (Kim & Mueller,

1978a). The postulate of factorial causation assumes that the observed variables are

linear combinations of the underlying (i.e., hypothetical or unobservable) factors.

Some of these factors are assumed to be common to two or more variables and some

are assumed to be unique to each variable. The unique factors are assumed to be *orthogonal* to, or uncorrelated with each other, while the common factors contribute to the covariation among the observed variables. The researcher has to confirm this postulate on the basis of substantive knowledge about the data in addition to the statistical evidence. In other words, if the analysis suggests the presence of a factor, it must be substantiated with nonstatistical evidence such as a theory or other information. In short, decisions concerning the presence of factors have to make logical as well as statistical sense.

The postulate of parsimony assumes that the simplest model (i.e., the model involving a minimum number of common factors) that explains the given data is believed to be true (Kim & Mueller, 1978a). In *exploratory factor analysis*, the researcher is looking for the most parsimonious number of factors. In *confirmatory factor analysis*, the researcher is looking for evidence of the presence of factors that support a theory or observed phenomena, although the number of factors may not be the most parsimonious.

Steps in Factor Analysis

Factor analysis is accomplished in four basic steps using computer software (Kaplan & Saccuzzo, 1989; Kim & Mueller, 1978a; Norusis, 1990). In Step 1, data that have been collected are entered into the computer program, and each variable is correlated with every other variable. The resulting correlation matrix is evaluated by three procedures to determine if the data is appropriate for factor analysis (Merenda, 1997; Norusis, 1990). In Step 2, initial factors are extracted using one of several statistical methods. In Step 3, the initial factors are transformed through the process of rotation to make them more interpretable. In Step 4, variables are created to

represent each factor. These variables can be used for other purposes such as producing valid and reliable factor scales.

Factor Analysis of the PEAS

Overview of Steps 1–4

An exploratory factor analysis of the PEAS was performed using SPSS (Norusis, 1990) software following the steps outlined above. In Step 1, the data were correlated and tested for appropriateness for factor analysis. The statistical method of *principal components analysis* was chosen for Step 2 because there were a large number of items and because the analysis was exploratory (Merenda, 1997; Velicer & Jackson, 1990). Several exploratory analyses were performed in Step 3 (Borg & Gall, 1983; Kerlinger, 1973; Merenda, 1997). Orthogonal rotations were performed using the VARIMAX procedure to see if observed data were adequately represented by independent factors. Clarke's (1986a) theory suggests that there should be two orthogonal factors, Being and Doing. An oblique rotation using Direct Oblimin was also performed to see if there were intercorrelated factors. Clarke's theory also predicts that there may alternatively be seven factors representing the following developmental tasks: (1) Being; (2) Doing; (3) Thinking; (4) Identity and Power; (5) Structure; (6) Identity, Sexuality, and Separation; and (7) Interdependence. In Step 4, two new variables, (i.e., two composite scores consisting of the mean of responses to all items on each factor) were created and correlated with each other. An internal reliability analysis of the items that loaded on each factor was also conducted. The steps will be explained in more detail in the next chapter using the results of the data generated in this study.

Reliability Analysis of Subgroups

In addition to the composite scores for the whole sample, various subgroupings within the sample were also of interest to the researcher. In order to determine if the resulting scale would work for subgroups as well as for the general population of adults, properties of the scale, such as internal consistency reliability, would have to be conducted for the subgroups. It was hoped that a final instrument could be devised that could be used in the future to study self-esteem and the effects of affirmations on members of these groupings. Ideally, in order to conduct reliability analyses, at least 30 respondents are preferred (Ary, Jacobs, & Razavieh, 1990). If there are fewer than that, the reliability results may be unstable. Therefore, a Cronbach Alpha reliability analysis was planned if there were at least 30 respondents in any subgroup defined by gender, marital status, parental status, ethnicity, sexual orientation, educational levels, income levels, and employment status, as well as sexual, physical, and substance abuse histories and participation in therapy.

Summary of the Methodology

The present study was an exploratory factor analysis of a transformed version of Clarke's Educational Affirmations (Clarke, 1986a). Participants in this study were a sample of adults enrolled in a required course at a community college in Southwest Lower Michigan. The instrument was constructed by first transforming the Educational Affirmations into 116 items (Centers et al., 1993). An expert rating analysis of items was conducted that resulted in the PEAS instrument with 103 items. A demographic questionnaire was added to generate information to identify categories of respondents for further analysis.

The objective of factor analysis is to reduce a set of variables into a smaller set of underlying variables or factors. This study was an attempt to explore the underlying factors in a transformed version of Clarke's Educational Affirmations. The affirmations were based on a theory that suggests there ought to be two independent factors or seven intercorrelated factors. Because the study was exploratory, the researcher was interested in discovering any factors that may be present, rather than confirming the theory. Another goal of the study was to lay the foundation for the eventual development of a scale based on the Educational Affirmations. The results of the factor analysis will be presented in Chapter IV.

CHAPTER IV

RESULTS

Introduction

In the last chapter, the methods of collecting, organizing, and analyzing the data for a factor analysis of the Preliminary Educational Affirmations Scale (PEAS) were explained. The PEAS was based on a transformed version of Clarke's Educational Affirmations. This chapter will describe results of the factor analysis using the data generated in the study.

Results of the Factor Analysis

Step 1 Results

Data Collection and Preparation

To analyze the data, the 520 valid protocol response sheets were scanned by a computer and the raw data recorded. The raw data were then entered into the FACTOR program of SPSS software. Each PEAS item was correlated with every other PEAS item, resulting in a correlation matrix (Appendix G).

Data Adequacy Tests

To test whether the correlation matrix was appropriate for factor analysis, three tests were conducted (Norusis, 1990). The Kaiser-Meyer-Olkin (KMO)

65

measure of sampling adequacy is an index for comparing the magnitudes of the observed correlation coefficients to the magnitudes of the partial correlation coefficients. If the KMO values are small, factor analysis is not advised because correlations between pairs of variables cannot be explained by other variables. Kaiser characterizes KMO chi-squares in the .90's as marvelous, and below .50 as unacceptable. The Bartlett's test of sphericity is used to test the hypothesis that the correlation matrix is an identity matrix (i.e., all diagonal terms are 1.0 and all off-diagonal terms are 0). The hypothesis can be rejected if the statistic is large and the associated significance level is small. The anti-image matrix (AIC) indicates the strength of the relationship among variables (i.e., partial correlation coefficients). The partial correlation coefficients are estimates of the correlation between the unique factors and should be close to zero.

Table 2 shows the results of the Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. The results of these tests as well as the Anti-Image Correlation matrix, indicated that the correlation matrix was appropriate for factor analysis (Norusis, 1990).

Table 2

KMO and Bartlett's Test Results

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.924
Bartlett's Test of Sphericity	Approx. Chi-square	20046.365
	df	5253
	Sig.	.000

Step 2 Results

Extraction of Initial Components

To determine the minimum number of common factors, the principal components analysis method was chosen because this method tends to explain more of the variance in the data, and because it is computationally more efficient (Merenda, 1997; Velicer & Fava, 1987; Velicer & Jackson, 1990). Principal components analysis is a method of transforming a given set of observed variables into a set of variables that better represent the data and that accounts for as much variance as possible (Kim & Mueller, 1978a). In this method, components are all assumed to be orthogonal; the first component explains the largest amount of variance in the data, the second component explains the next greatest amount, and so on.

In the principal components analysis, a mathematical procedure decomposes or transforms the data using a characteristic equation called an *eigenequation*, that results in a matrix of characteristic roots called *eigenvalues* (Kim & Mueller, 1978b). One criterion to estimate the number of underlying factors is the use of the "Kaiser Rule" which suggests retention of components with eigenvalues greater than 1.00 (Kim & Mueller, 1978a). However, Merenda (1997) does not recommend using the Kaiser Rule because he believes it tends to suggest too many underlying factors. In this data, there were a total of 27 components with initial eigenvalues of 1.00 or greater that explained 63% of the total amount of variance in the data, although the greatest percentage of the variance was explained by the first two initial factors (see Appendix H for the Table of Total Variance Explained per component). Because 27 components were well beyond any anticipated number of factors, Merenda's criticism seemed to apply in this case.

To determine a more realistic number of components, the Kaiser Rule default in the SPSS program was overridden, and the Scree test was applied instead. The Scree test employs a plot or graph (Figure 2) of the magnitude of the increments between the eigenvalues of adjacent components.
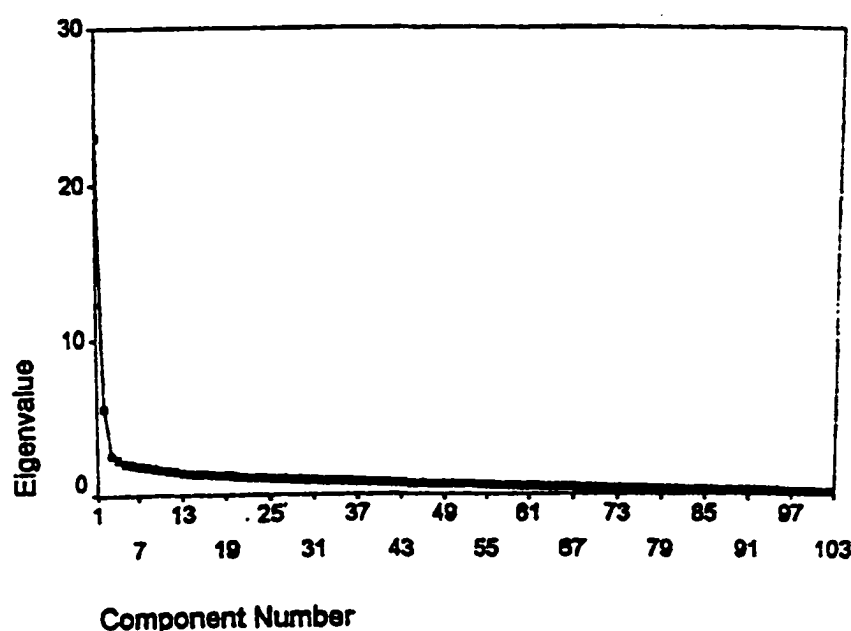
Figure 2. Scree Plot.

In this method the rule to identify potential factors is to stop extraction at the point at which an "elbow" or leveling off occurs in the plot of successive eigenvalues (Merenda, 1997). By examining the Scree plot it appeared that an elbow could be identified at the second, third, or fifth eigenvalue.

The first two initial components accounted for the majority of the variance (22.361% and 5.395% respectively), while the next three accounted for 2.463%,

2.220%, and 1.962% of the variance respectively, for a cumulative total of 34.4%. The remaining 22 components explained only 1.8% or less each of the variance. Therefore, the first 5 components were retained for further analysis. The last 22 components were eliminated as possible factors because, after the eigenvalues level off, each additional factor contributes a trivial amount of new information.

Step 3 Results

Orthogonal Rotation of Axes

The next step in factor analysis is to identify the simplest solution that best represents the factors. Obtaining this solution is accomplished by rotating the primary axes of the data plot so that the axes form the best "fit" with the clusters of variables (Kim & Mueller, 1978b; Norusis, 1990). In other words, the basic goal of the rotation step is to find a factor pattern matrix that is closest to the simplest ideal structure (i.e., each variable will have strong loadings on one factor and none on any other factor). Rotation of the axes does not change the amount of covariation explained by the initial solution in Step 2, but changes how the variance is distributed among the factors in the rotated solution.

Because this study was an exploratory analysis, rotations were performed assuming two, three and five underlying factors based on the Scree plot. The VARIMAX orthogonal rotation method option in the SPSS software was employed because this method maximizes the variance of the squared loadings for each factor instead of each variable, and it assumes that there is zero correlation between factors. Since Clarke's theory (1986a) suggests there are two orthogonal factors (i.e., Being and Doing), the VARIMAX method was appropriate to use because it explains more

of the variance in terms of each factor, and it gives a clearer separation of each factor (Kim & Mueller, 1978b).

Two Factor Solution

Although satisfactory statistical solutions supporting 2, 3, or 5 factors resulted, the two factor solution seemed most likely because little additional variance was explained by the three and five factor solutions, and because the two factor solution was in line with the underlying theory that there ought to be two orthogonal factors. The criteria to accept an item as belonging to a factor was that it had to load uniquely and strongly (i.e., have a minimum value of the squared loading equal to or greater than .50) on a factor. In the two factor rotated component solution, the total variance explained was 27.756%; the first factor contained 28 items and accounted for 15.095% of the rotated sums of squared loadings, while the second factor contained 20 items and accounted for 12.661% of the rotated sums of squared loadings. Table 3 is the rotated component matrix of the two factor solution containing those items that loaded on each factor at .50 and above.

Items Loading on Factors

Following rotations for the best factor solution, the researcher carefully examined the items that loaded on each factor of the two, three, and five factor solutions. An examination of the items also supported the two factor solution. Table 4 lists the items, loading values, and the Educational Affirmations from which they were derived for Factor 1, and Table 5 lists the items, loading values, and the Educational Affirmations from which they were derived for Factor 2 in the two factor solution.

Table 3

Rotated Component Matrix: Two Factor Solution

Variable	Factor 1	Factor 2
V1	.621	
V9	.593	
V11	.522	
V12	.517	
V16		.509
V17	.526	
V18		.502
V19	.595	
V23	.580	
V24	.508	
V27		.544
V33	.656	
V34		.555
V38	.614	
V40		.507
V43		.563
V45		.594
V46		.607
V47		.526
V49		.506
V51		.569
V53	.614	
V54		.589
V56	.698	
V59	.545	
V60		.588
V61	.614	
V62	.534	
V69		.525
V70	.584	
V72		.537
V73	.537	
V77	.562	
V78	.647	
V79	.651	
V80	.705	
V81	.600	
V83		.563
V84		.527
V86	.546	
V91	.511	
V92		.516

Table 3—Continued

Variable	Factor 1	Factor 2
V93		.526
V98		.544
V100	.543	
V101	.582	
V102	.586	
V103	.500	

It was hypothesized from Clarke's (1986a) theory that there may be two orthogonal factors that suggest lovableness or Being and capability or Doing. Rather than testing whether items written to measure Being and Doing grouped as intended, the items loading on each factor were examined in order to name the factors. The results of the factor analysis suggested two independent factors. The items that loaded high on Factor 1 are all positively keyed and seem to be concerned with learning, acceptance of oneself and growth. Since the desire to grow and to love oneself has to do with one's existence, this factor seems to support the hypothesized factor of Being.

The items that loaded on Factor 2 are negatively keyed and seem to suggest one's ability to relate or be connected to others in a healthy way. Many of the items that loaded on Factor 2 fit very closely with the idea of *differentiation* as theorized by Bowen (1978). Intrapsychic differentiation is the ability to separate feeling from thinking (Hovestadt & Fine, 1987; Nichols & Schwartz, 1998). It is also the ability to know where "one ends and another begins" (Friedman, 1991, p. 141). The ability to differentiate from one's family and significant others and to have one's own values and goals while at the same time maintaining an emotional connectedness with them is a key element in healthy development and functioning according to Bowen's

Table 4

Items, Loadings, and Affirmations for Factor 1

Loading	Item Number and Item
.705 (Affirmation):	80. I have a life-long commitment to my personal growth. VII 4. Through the years you can expand your commitments to your own growth, to your family, your friends, your community, and to all humankind.
.698 (Affirmation):	56. I am a good friend to myself. VII 2. You can be uniquely yourself and honor the uniqueness of others.
.656 (Affirmation):	33. I love who I am. IV 7. I love who you are. (Love affirmation)
.651 (Affirmation):	79. I am joyful. VII 7. You can be creative, competent, productive, and joyful.
.647 (Affirmation):	78. I am maturing in my ability to love myself and others. VII 11. Your love matures and expands. (Love affirmation)
.621 (Affirmation):	1. I am glad that I am me. I 4. I'm glad you are you.
.614 (Affirmation):	38. I continue to explore who I am. IV 1. You can explore who you are and find out who other people are.
.614 (Affirmation):	53. I love growing with other people. V 7. I love you even when we differ; I love growing with you. (Love affirmation)
.614 (Affirmation):	61. I grow in my maleness/femaleness. VI 5. You can grow in your maleness or femaleness and still be dependent at times.
.600 (Affirmation):	81. I look forward to the next part of my life journey. VII 10. You can finish each part of your journey and look forward to the next.
.595 (Affirmation):	19. I love and accept myself when I am active. II 7. I love you when you are active and when you are quiet. (Love affirmation)

Table 4—Continued

Loading	Item Number and Item
.593 (Affirmation):	9. I am glad that I am alive. I 1. I'm glad you are alive.
.586 (Affirmation):	102. I can expand my commitments to all creation. VII 4. Through the years you can expand your commitments to your own growth, to your family, your friends, your community, and to all humankind.
.584 (Affirmation):	70. I pursue my own interests in a responsible way. VI 3. You can develop your own interests, relationships, and causes.
.582 (Affirmation):	101. I am committed to what I do. VII 5. You can build and examine your commitments to your values and causes, your roles, and your tasks.
.580 (Affirmation):	23. I know what I need. III 6. You can know what you need and ask for help.
.562 (Affirmation):	77. I am productive. VII 7. You can be creative, competent, productive, and joyful.
.546 (Affirmation):	86. I am creative. VII 7. You can be creative, competent, productive, and joyful.
.545 (Affirmation):	59. I ask for support when I need it. V 7. My love is always with you. I trust you to ask for my support. (Love affirmation)
.543 (Affirmation):	100. I am able to finish each part of my life journey. VII 10. You can finish each part of your journey and look forward to the next.
.537 (Affirmation):	73. I welcome opportunities to create new dreams. VII 9. You can say your hellos and good-byes to people, roles, dreams, and decisions.
.534 (Affirmation):	62. I learn to use old skills in new ways. VI 4. You can learn to use old skills in new ways.
.526 (Affirmation):	17. I like to grow. II 6. I like to watch you initiate and grow and learn.

Table 4—Continued

Loading	Item Number and Item
.522 (Affirmation):	11. I have many interests. II 5. You can be interested in everything.
.517 (Affirmation):	12. I am able to experiment with new ideas and things. II. 1. You can explore and experiment and I will support and protect you.
.511 (Affirmation):	91. I continue to expand my commitments to all humankind. VII 4. Through the years you can expand your commitments to your own growth, to your family, your friends, your community, and to all humankind.
.508 (Affirmation):	24. I ask for help when I need it. III 6. You can know what you need and ask for help.
.500 (Affirmation):	103. I keep my behavior consistent with who I am. VII 5. You can build and examine your commitments to your values and causes, your roles, and your tasks.

theory. Bowen perceived differentiation as a process rather than a goal, and full differentiation is never fully attained. Examples of negatively keyed items that reflect intrapsychic differentiation idea include "I stay in distress instead of getting help"; "I am not sure about what I really know"; and, "I have trouble finding ways of doing things that work for me." Examples of items that reflect interpersonal differentiation include, "I let other people do my thinking for me"; "I do not know how to disagree"; and, "I do not think for myself." The process of differentiation requires the development and practice of various interpersonal skills or capabilities (i.e., Doing), although more specific than Clarke's theory would require. Taken all together, however, the items that loaded on Factors 1 and 2 appear to provide partial support for the hypothesized principle factors of Being and Doing.

Table 5

Items, Loadings, and Affirmations for Factor 2

Loading	Item Number and Item
.607 (Affirmation):	46. I let other people do my thinking for me. V 6. You can think for yourself and get help instead of staying in distress.
.594 (Affirmation):	45. I stay in distress instead of getting help. V 6. You can think for yourself and get help instead of staying in distress.
.589 (Affirmation):	54. I do not know how to disagree. V 5. You can learn when and how to disagree.
.588 (Affirmation):	60. I do not learn new roles when I need them. VII 9. You can say your hellos and good-byes to people, roles, dreams, and decisions.
.569 (Affirmation):	51. I have trouble thinking for myself. III 4. You can learn to think for yourself and I will think for myself.
.563 (Affirmation):	43. I do not know good rules to help me live with others. V 4. You can learn the rules that help you live with others.
.563 (Affirmation):	83. I do not examine my commitment to what I do. VII 5. You can build and examine your commitments to your values and causes, your roles, and your tasks.
.555 (Affirmation):	34. I do not know how to learn new ways of being effective and powerful. IV 3. You can try out different roles and ways of being powerful.
.544 (Affirmation):	27. I do not think for myself. III 4. You can learn to think for yourself and I will think for myself.
.544 (Affirmation):	98. I do not trust my inner wisdom. VII 8. You can trust your inner wisdom.
.537 (Affirmation):	72. I dread the next stage of my life. VII 10. You can finish each part of your journey and look forward to the next.
.527 (Affirmation):	84. My needs are not important. VII 1. Your needs are important.

Table 5—Continued

Loading	Item Number and Item
.526 (Affirmation):	47. I have trouble finding ways of doing things that work for me. V 3. You can find a way of doing things that works for you.
.525 (Affirmation):	69. I do not evaluate the social causes I support. VII 5. You can build and examine your commitments to your values and causes, your roles, and your tasks.
.526 (Affirmation):	93. I do not fulfill my responsibility for contributions to each of my commitments. VII 6. You can be responsible for your contributions to each of your commitments.
.516 (Affirmation):	92. I have trouble making my love extend to more and more people. VII 11. Your love matures and expands. (Love affirmation)
.509 (Affirmation):	16. I am not sure about what I really know. II 4. You can know what you know.
.507 (Affirmation):	40. I am not able to be powerful and ask for help at the same time. IV 2. You can be powerful and ask for help at the same time.
.506 (Affirmation):	49. I do not learn from my mistakes. V 1. You can think before you say yes or no and learn from your mistakes.
.502 (Affirmation):	18. I am not able to explore things or ideas. II 1. You can explore and experiment and I will support and protect you.

Oblique Rotation of Axes

Clarke's theory predicts that there could alternatively be seven intercorrelated factors representing the following developmental tasks: (1) Being; (2) Doing; (3) Thinking; (4) Identity and Power; (5) Structure; (6) Identity, Sexuality, and Separation; and (7) Interdependence. To further explore the data, an oblique rotation

of the initial components was performed using Direct Oblimin but the rotation failed to converge. In other words, there was no statistical evidence for oblique factors.

Step 4 Results

Composite Scores

Two new variables called composite scores were created to summarize people's responses on the Likert scale to items that loaded on each factor. The mean composite score for the 28 items that loaded on Factor 1 was 4.62; the composite score for the 20 items that loaded on Factor 2 was 1.83. In other words, the average score for Factor 1 suggests that people responded to the items somewhere between "often" and "usually" true; the average score for Factor 2 suggests that people responded to the items somewhere between "rarely" and "seldom" true. Since the items that loaded on the Being variable are all stated positively, and the items that loaded on the Doing variable are all stated negatively, the variables should be negatively correlated, which was the case. The results of a Pearson's correlation of the composite scores was $-.557$ ($p < .01$). In other words, when people responded high on Factor 1, they tended to respond low on Factor 2. Descriptive information (i.e., means, standard deviations, skew, kurtosis, and standard error of kurtosis) for 103 PEAS items and the two new variables are found in Appendix I.

Internal Consistency of Factor Items.

To evaluate the items that loaded on each factor for internal consistency, Cronbach's coefficient alpha was calculated for the items loading on Factor 1 and Factor 2. The reliability analysis for the 28 items in Factor 1 was based on 497 cases

and resulted in an alpha of .93. The reliability analysis for the 20 items in Factor 2 was based on 502 cases and resulted in an alpha of .90. Reliability for both scales is at a very high level for scales intended to be used for social science research (Kaplan & Saccuzzo, 1989). The reliability scales for Factors 1 and 2 can be found in Appendix J.

Internal Consistency Analysis for Subgroups

Although the reliability coefficients were acceptable for the scales representing Factors 1 and 2, further analysis was not conducted on subgroupings of respondents, as had been planned, for two reasons. First, the two factors accounted for only 28% of the total variance in the data, far below the 50% recommended by Merenda (1997). Second, after considering the transformed items against Clarke's (1986a, 1996) theory for affirmation construction (i.e., positive you-statements using present progressive or future active verbs), it was questioned whether the items fully reflected Clarke's theory, even if they reflected the meaning of the affirmations. In other words, the factor analysis fell short of fully exploring the Educational Affirmations because the items were not stated in accordance with Clarke's theory. It was concluded that item level revision of the scale is needed to accurately explore Clarke's affirmations. These issues will be discussed in Chapter V.

Summary

An exploratory factor analysis was conducted on the PEAS, a transformed version of Clarke's Educational Affirmations, with a sample of 520 of responses. The results indicated the presence of two independent factors, but the two factors accounted for only 28% of the total variance in the data. The items that loaded on

these two factors, however, suggest partial support for the hypothesized factors of Being and Doing. It was concluded that item level revision of the scale is needed to fully test Clarke's theory of affirmation construction.

CHAPTER V

DISCUSSION

Introduction

In this study, factor analysis was used to explore the underlying constructs of a transformed version of Clarke's Educational Affirmations. The results suggest partial support for two orthogonal or uncorrelated factors of Being and Doing that are in line with the theoretical base of the affirmations. However, the factors accounted for only 28% of the total variance in the data. In this chapter the results will be discussed in terms of theoretical and methodological concerns and limitations. The implications of this study for practice and future research will also be addressed.

Discussion of Results

Theoretical Issues

One reason that this factor analysis of the Educational Affirmations may have resulted in only weak support for two factors is that Clarke's (1986a) underlying theory is invalid. In other words, there may be little, if any, correlation between belief in the affirmations, development, and self-esteem. On the other hand, it may be that the wording of the Educational Affirmations do not convey the underlying theoretical belief that people need to be affirmed for Being and Doing throughout their development. It was hoped that this study would be a first step is exploring these possibilities. However, this particular study did not produce enough evidence to

81

refute or confirm either argument about theory because of methodological problems with the construction of the Preliminary Educational Affirmations Scale (PEAS), the instrument used in the study.

Methodological Issues

There are several issues related to measurement validity and reliability of this study that may account for the weak results of the factor analysis. Validity is the agreement between a measure and the quality it is believed to measure, while reliability is concerned with the dependability, consistency or repeatability of measurement results (Kaplan & Saccuzzo, 1989). In this section these methodological issues will be discussed.

Validity Concerns

Although Clarke helped transform the affirmations into items for the PEAS (Centers et al., 1993), and an expert rating item analysis concluded that the PEAS items captured the meaning of the Educational Affirmations, the actual wording of the items was not consistent with Clarke's wording of the affirmations. The implications of this problem will be discussed in the following section.

Review of Clarke's Theory of Affirmation Construction

Clarke (1986a, 1996) theorized that affirmations should be stated as you-statements in order to minimize dissonance, and that affirmations should be positive and should not need interpretation. She also intended for the Educational Affirmations to be developmental; each set of affirmations should receive focus as people encounter or recycle the tasks in each stage of life development. She did not

intend for the affirmations to be offered to oneself or others all at once, or out of the context of intrapersonal need or interpersonal relationships.

In order to create a quantitative instrument that followed the logic of creating items for scales (Kaplan & Saccuzzo, 1989), and that addressed the complaints from respondents of an earlier scale, Clarke's ideas concerning affirmation construction were consciously violated for logical and practical reasons. In an attempt to create statements that were simple and easy enough for people to communicate the degree to which they believed the statement, the affirmations were transformed several ways. First, compound affirmations were broken into one-thought items so that people could to respond to each component rather than the whole idea. For example, the affirmation "You can be creative, competent, productive and joyful" became four statements: "You can be creative," "You can be competent," "You can be productive," and "You can be joyful."

Second, although Clarke warned that I-affirmations may engender dissonance in the person who is asked to say the affirmation, you-affirmations were transformed into I-statements because it was believed that I-statements would make it easier for respondents to read the statement as a question to themselves. So the preceding example became: "I can be creative," "I can be competent," "I can be productive," and "I can be joyful."

Third, the verb tenses were changed from future tense (i.e., "can") to present (i.e., "am" or "feel"). Now the above example reads: "I am creative," "I feel competent," "I am productive," and "I am joyful." Finally, half of the items were turned into negative statements to help identify stereotypical responding (Kaplan & Saccuzzo, 1989). Thus, "I feel competent" became "I feel incompetent."

It is possible, and even likely, that the transformation of the affirmations into items significantly altered how the ideas underlying the affirmations were perceived by the respondents to the PEAS. For example, the four separate statements in the above illustration may have been perceived by respondents differently than the compound statement would have been. Additionally, the verb tense in the new statements ask whether the person *is* (e.g., I *am* joyful") rather than whether the person *can be* (e.g., "I *can be* joyful"). The change in tense may be a subtle, but powerful shift in the question being asked. When the question is stated as "I can be joyful," it is a permission; it gives permission for people to experience themselves as joyful. On the other hand, when the question is stated as "I am joyful," it may be interpreted as a personality trait; it is a statement about one's being. It is unknown whether the I-stated items in the PEAS caused dissonance within the respondents. It is also unknown whether respondents interpreted the items as permissions or personality traits or how they interpreted the negatively stated items. For example, "I feel incompetent" may be asking something different than the opposite of the affirmation, "You can be competent." Thus, the researcher concluded that, although the 103 PEAS items may have reflected the meaning of the 54 Educational Affirmations, the items did not reflect the theoretical construction of the affirmations.

In addition to the validity of the items as reconstructions of the affirmations, there are validity issues concerning the context of how the affirmations were studied. Clarke's theory (1986a; Clarke & Gesme, 1988) suggests that the Educational Affirmations are contextual and developmental. Clarke emphasized that the affirmations are intended to be offered to oneself in the context of personal growth and need, and to others in the context of caring relationships. Furthermore, only a few relevant affirmations should be given at any one time in response to psychosocial

growth and needs. The theory suggests that affirmations will become internalized and processed over many exposures to relevant situations and in relationship to important others. Because the affirmations are related to development and need, all 54 affirmations would never be offered to someone at the same time. Therefore, asking people to respond to all of the statements, all at once, and outside of any developmental or relational context may have dramatically changed how the affirmations (whether original or transformed) were perceived by respondents. In short, although at the time the PEAS was created the items made logical sense, what was finally factor analyzed may have been very different from the Educational Affirmations.

Reliability Concerns

In addition to the above validity concerns, there were several reliability concerns with this study. First, respondent fatigue may have been an important source of error in the data (Ary et al., 1990). The long questionnaire (i.e., 103 items plus 15 demographic questions) with a 7-point Likert scale may have been too long to obtain consistent responses, especially because the PEAS was administered at the end of class periods. Many of these classes were held in the evening, again potentially adding to fatigue.

Second, the instructors who administered the PEAS reported that participants were frequently frustrated with the generic computer bubble sheet that was used to record answers. Although the Likert scale had 7 points, the answer sheet had 10 spaces (numbered 0–9) for answers, which was confusing (see Appendix D). Additionally, respondents were asked to read the PEAS items on one paper and

record their answers on another (i.e., the computer bubble sheet), perhaps contributing to confusion as well as to fatigue.

Third, it was unclear whether people could really discriminate at the fine level of a 7-point Likert scale with this data. The results of the composite scores for Factors 1 and 2 suggest that there may not be much difference between "rarely true" and "seldom true, and "often true" and "usually true." Considering the length of the instrument and the questions being asked, a 5-point Likert scale may have been adequate.

Fourth, although this study had a large enough number of respondents for factor analysis (Ary et al., 1990; Tinsley & Tinsley, 1987), the sample was not a random sample of the general population, or even the college population, but rather, a sample of convenience for very practical reasons. It simply was not possible for the researcher to randomly sample either the population or the population of the college. Furthermore, one problem with using community college students for researching the contents of the Educational Affirmations is that it can be reasonably assumed that most people who enroll in college are interested in growth for whatever reasons, and are capable enough to be admitted to college. In other words, it can be assumed that any sample of adult students will be relatively motivated and functioning fairly well in life, but it is unknown how different a sample of adult students may be from the general population of adults.

The researcher was interested in understanding how adults, especially parents, perceive the affirmations. One reason this particular community college was sampled was because it has many nontraditional students so it was hoped that there would be a higher percentage of respondents who would be older and who would have had more adult experiences, particularly being parents, although parenthood was not a

requirement for participation in the study. As it turned out, the sample had a wide age range, but only 30% had children. Future research should specifically sample populations of parents, as well as general populations of adults.

Conclusions Concerning Research Results

The results of the factor analysis yielded two factors that accounted for 28% of the total variance in the data. The items that loaded on the two factors suggested partial support for the hypothesized factors of Being and Doing. The Doing factor seems to be specifically related to differentiation skills theorized by Bowen (1978). The researcher was interested in conducting an exploratory analysis, that is to see which items loaded on the factors that emerged; the study was not intended to be a confirmatory analysis, and thus, did not intend to examine whether the affirmations that were specifically intended to support Being or Doing actually loaded on the factors.

Finally, although the items may have conveyed the meaning of the affirmations, they violated Clarke's theory of affirmation construction. As already described, several changes were made to the affirmational statements based on feedback from respondents to an early scale and on the logic for creating scale items (Kaplan & Saccuzzo, 1989). In hind sight, the decision to transform the affirmations into present tense I-statements may have been a poor choice; it has been concluded that item level revision of the PEAS to comply with Clarke's construction of affirmations would be necessary to fully explore the Educational Affirmations. Therefore, because of methodological limitations, particularly content validity of the PEAS, and sampling and measurement problems, further analysis and scale development was not conducted with the data. One conclusion concerning the

methodological problems is that quantitative research methods to explore developmental affirmations may be inappropriate. This conclusion will be discussed below.

General Discussion: Direction Towards Practice

In this section several issues that emerged from the literature reviewed in Chapter II concerning the construction, content, and context of affirmations will be examined and compared to Clarke's theory of affirmations. The implications of these issues for educational and clinical practice will also be discussed.

Construction of Affirmations

From elementary grammar, it will be recalled that the subject of a sentence acts on or does something to the object of the sentence. In this section the construction of affirmational statements as sentences that contains subjects, verbs, and objects will be explored and discussed.

Subject of an Affirmation

Most of the references that describe how to construct an affirmation stipulate that the subject of an affirmation should be the first person singular pronoun *I*. The logic behind I-affirmations is that if people repeat "I am . . ." messages enough times then the new belief will set in and override the old message that said, "I am not . . ." (Clarke, 1996). Clarke argues that, instead of using the first person singular pronoun *I*, the subject of an affirmation should be the second person singular pronoun *you*, because I-affirmations can set up cognitive dissonance. Clarke's logic, based in Transactional Analysis, for using you-affirmations is as follows:

Let us say, as an example, that I have a deep belief that I do not belong, then you tell me to say twenty times a day, "I belong here." I object.

· First—No matter how much good will you have toward me, this is your message, not mine.

· Second—Saying your prescribed, "I belong here," can set up dissonance in me and even more anxiety, discomfort or depression than I had before.

· Third—If I try to say it and give up, I have added another failure, another proof that I don't belong here.

If, instead, you say to me, "You belong here," I can listen to you with all three of my Ego States, Parent, Adult, and Child. My Parent Ego State might say, "She seems to mean that!" My Adult might say, "It seems reasonable that I ought to belong here." My Child can say, "No way!" But the thinking, the internal dialogue between the Ego States, has started. Then if my Parent says, "This fits with my values," and my Adult says, "This seems to be a healthy message," the affirmation now belongs to me, I have chosen it. I can say to my child within, "You belong here." My Child can argue or disbelieve, but if my Parent and Adult Ego States unite to insist on giving the message and deliberately choose to behave as if I belong here, eventually my Child will spontaneously say, "I belong here." (p. 6)

The notion that people should use I-affirmations when they do not believe them requires more research. However, the study by Blanton et al. (1997) suggests that when people are given affirmational feedback that is contrary to their behavior or self-belief, they experience high dissonance similar to what Clarke theorized. Clarke feels very strongly about the presumptuousness of telling people to say I-affirmations unless they have developed their own affirmations and the affirmations have already gone through the internalizing process as Clarke described above. Otherwise, affirmations should be in the form of you-statements, such as "You belong here."

Although most of the Educational Affirmations begin with *you*, several of the affirmations begin with *I*. However, when Clarke begins affirmations with *I*, the statements are reflecting interpersonal relationships and not I-statements: "Sometimes it [the affirmation] says I feel this for *you*, as in I love who *you* are. That is very

different from telling someone to say, '*I* love who *I* am' " (Clarke, 1996, p. 6). Other examples of relational affirmations include "What you need is important to me," and "I love you when you are active and when you are quiet."

Verb Tense of an Affirmation

The next element of a statement is the verb. Before considering what actual words should be used (see below), it is important to consider the tense of verbs as they apply to affirmations. The majority of practitioners cited in Chapter II suggested using present tense, active voice, as if the desired change has already happened (e.g., "I *know* my times tables"; "I *am* a forceful speaker"). LaMascus (1985) asserts that by stating affirmations in the present tense, children will feel as a success now, not in the future. But Clarke's model brings the use of present tense verbs into question because of the possibility of engendering dissonance. For example, what if I don't know my times tables or I am not a forceful speaker *yet?* Saying the affirmation may cause internal conflict, anxiety, and worry.

One way around this problem is to state the affirmation of the desired change in the present progressive voice. Rather than focusing on the goal, the present progressive voice may be heard as celebrating one's effort and as giving encouragement, such as, "I *am becoming* a forceful speaker," or "I *am learning* my times tables." Coue (1922, 1923) stated his affirmation in the present progressive tense, "Every day, in every way, I *am getting* [italics added] better and better," and some of Clarke's affirmations are stated that way: "I'm glad you *are starting* [italics added] to think for yourself."

Another way to deal with the problem of dissonance is to use the future tense verb *can* with an action verb such as *know*, *learn*, or *feel* (e.g., "I *can know* my times

tables."). Most of Clarke's affirmations are stated this way. Clarke intentionally used the verb *can* with an action verb in the majority of the Educational Affirmations because she wanted her affirmations to "tell parents what to do, what to celebrate, what to insist upon, and what to give permission for" (1996, p. 6). Although technically directives use the verb *can* meaning "you are able/capable," while permissions use the verb *may*, meaning "you have my permission," Clarke consciously used the verb *can* because most people do not distinguish the between *can* and *may* (J. I. Clarke, personal communication, December 3, 1998). In other words, *can* may be heard and understood in the present tense as a directive to do something, but it may also be heard in the future tense as a permission to continue learning.

The issues concerning verb tense and voice require research. Clarke's model brings up questions about whether there will be significantly different outcomes, for example, when children say to themselves affirmations such as "I *know* all my times tables," versus, "I *can learn* my times tables," versus "I *am learning* my times tables."

Object of an Affirmation

The object of an affirmational statement is the thing that is intended to be changed or reinforced (e.g., behavior, quality, skill, or standard). However, the authors whose works were reviewed in Chapter II conflicted concerning whether the object of an affirmation should be general or specific in nature. For example, Downing (1986) suggested that when a child is having difficulty in math and perhaps feeling frustrated, then an affirmation like "I work hard at my *math* [italics added]" will be helpful. Note that this statement emphasizes, not only working hard, but math.

However, Coue (1922, 1923) stipulated that an affirmation should be general so that the unconscious will not focus on the problem (i.e., math), but on the process (i.e., working hard). Clarke's Educational Affirmations are general rather than specific, and related to theoretical developmental tasks rather than general well-being (e.g., "You can learn to think and feel at the same time," "You can use all your senses . . ."; "You can learn the rules . . ."; "You can think for yourself . . ."). Research is required to explore the relative merits of general and specific affirmations and their immediate and long-term ramifications.

Content of Affirmations

It is important to consider what content or actual words affirmational messages should contain. Clarke (1978) theorized that it is important to affirm existence or Being (e.g., "I love who you are") and to affirm behavior or Doing (e.g., "You can explore and experiment"). The review of self-esteem theory literature by Mruk (1995) supports her ideas. However, there appears to be confusion and controversy among the authors whose works were reviewed in Chapter II as to what words should be used to convey affirmational ideas. This section will discuss content of affirmations.

Problems With Praising

In order to affirm behavior (i.e., Doing), behavioral psychology suggests that it is important to identify in behavioral terms exactly what the person did well, and explain why it was positive (e.g., "I appreciate it when you call me to tell me you will be late because then I won't worry where you are"). Gordon (1970), creator of a behavioral-based parenting program, agreed that describing specific behavior is a

helpful parenting strategy because it tells children exactly what is expected of them. However, he warned that describing a behavior should not be confused with praising a behavior, or worse yet, praising a trait. *Praise* is defined as expressing a positive judgment or approval of a behavior or trait, not describing it (e.g., "You *are wonderful!*" or "You *are a good* boy"). Although usually well-intended, Gordon stated that praise is really a judgment about the person, rather than a description of some behavior or quality. The recipient of the praise may feel somewhat flattered, but ultimately judged. Typically the speaker is really trying to express appreciation of someone's qualities, intentions, or behavior, such as, "I appreciate your thoughtfulness," or "I see that you really care about the welfare of your children," or "You did a good job cleaning your room." A statement of praise rather than appreciation, however, judges the person as wonderful or good, as if these qualities were traits. If recipients of praise have any doubts about their lovability, dissonance may be engendered by the praise and they may decide that they are really "bad." In other words, praise may cause people to focus on their being rather than their behavior. Gordon warned that praising people, even though it sounds positive, tends to cut off communication because of the implicit judgment.

Clarke and Dawson (1989) claimed that when people hear messages that confuse being with doing they may experience feelings of shame. For example, a man may have an erroneous belief that in order to be smart, he must know everything, which, of course, is impossible. When he is told, "You *are* smart" (i.e., a statement about Being), he may feel ashamed because he knows that he does not know everything. Clarke and Dawson believe that repeatedly feeling ashamed (i.e., confusing doing and being) may lead to depression and low self-esteem, although the

source of the confusion may be because the sender sent a being message instead of doing one, or because the receiver interpreted a doing message as a being message.

Baumeister et al. (1996) believe that shame is a component in domestic violence. Although the majority of people who commit violent acts have inflated self-esteem, Baumeister et al. claim that people who typically commit spouse or child abuse have low self-esteem coupled with a sense of shame. Although feelings of shame tend to make most people withdraw or hide from others, abusers externalize shame as blame and become angry. When feelings of shame, blame, and anger overwhelm them and they have access to a vulnerable target (i.e., a person with less power such as a child or spouse), they lash out and abuse.

The problems associated with praise suggest that affirmations for behavior should be worded differently than affirmations for being. The need to separate behavior from traits is supported by the results of research conducted by Mueller and Dweck (1998). These researchers studied the difference between praising an attribute and praising an action and concluded that certain kinds of praise may hurt children. In a series of experiments, fifth graders were given a math test that they all easily passed. Some were praised for their intellect by being told, "You must be smart at these problems." Some were praised for their hard work by being told, "You must have worked hard at these problems." A control group received no feedback. Then the researchers assigned harder math problems and noted how each child responded to the work. They discovered that praising children for being intelligent tended to cause them to despair more quickly than children who were praised for being industrious. The children who were praised for being smart worried about failure, compared their scores with scores of other, and were less enthusiastic, and less determined as problems became more difficult. On the other hand, children who were

praised for being industrious tended to put more effort into solving the math

problems, concentrated on learning new ways to solve the problems, and maintained

persistence with a high level of interest. The researchers concluded that students who

were praised for their intelligence may have thought of it as a fixed trait and failure

meant that they lacked ability. On the other hand, the children who were praised for

industry may have attributed their failures to insufficient effort, not lack of ability.

Mueller and Dweck (1998) suggested that when it comes to praising a child's

intelligence, parents and teachers should

> as in criticism, "separate the deed from the doer" by applying praise to
> children's strategies and work habits rather than to any particular trait.
> Because children cannot be insulated from failure throughout their lives, great
> care should be taken to send them motivationally beneficial messages after
> success. (p. 50)

These researchers did not examine how children might react to combining praise for

intelligence with praise for industry, nor did they explore what happens when hard

work fails to produce favorable results. Although they did not directly address the

technique of affirmation, their research highlights the subtleties and dilemmas of

choosing the most helpful words for affirmations.

Mueller and Dweck's results disconfirm an assertion made by LaMascus

(1985) that affirmations should assume success rather than ability. She suggested

that the affirmation, "I get straight A's," is better than saying, "I have the ability to

get straight A's" (p. 4). Although focusing on success is intended to motivate capable

students to work up to their abilities, the problem with LaMascus' reasoning,

according to Mueller and Dweck's research, is that ability is usually thought to be

innate. Rather than affirming the outcome (i.e., straight A's), or the ability (i.e., the

child is smart), perhaps a better affirmation, based on Mueller and Dweck's results,

would be to affirm the child's process (e.g., "You can really work hard in school!").

Accent the Positive

By definition, affirmation connotes a positive message. All of the authors whose work was reviewed in Chapter II, including Clarke (1986a), assert that affirmations should be stated positively, presumably because behavioral learning theory stresses reinforcement of positive behavior. However, the notion of positivity brings up several affirmational issues.

The first issue is whether affirmations should be encouraging positive, healthy processes or whether affirmations should make people feel good. Many of the affirmations promoted in popular self-help literature appear to have the goal of making the recipients feel good. However, if the technique of affirmation is intended to bring about and reinforce positive growth or change in people, then inviting people to always feel good is not an appropriate use of affirmations. It is important to remember that growth usually requires hard work and may not feel particularly good while people are engaged in it. For example, learning math, practicing baseball, or writing a dissertation are all skill-building activities people may engage in to grow into a better person, but these take hard work for most people, and the processes can be discouraging at times. Similarly, staying sober for alcoholics, and grieving for bereaved persons are two examples of necessary processes that will make the persons going through the processes feel better eventually, but the processes themselves may not necessarily feel good. When considering what kinds of affirmations will help these processes, the research already reviewed by Mueller and Dweck (1998) seems to support the importance of affirming people's efforts at engaging in the process rather than merely affirming the outcome. In short, it is important to affirm what people should do, rather than simply what feels good. Two examples of affirmations offered

by Clarke to support growth and change processes are, "You can find out the results of your behavior," and "You can think for yourself and get help instead of staying in distress."

The second issue related to positivity is the idea of emphasizing positive thinking. One criticism of affirmations is that they may focus only on the positive. Holder (1990) particularly blasted the emphasis on positive thinking because it can inhibit performance by creating inner conflict, that is, dissonance, as discussed above, and by encouraging narcissism and disrespectful attitudes. He believes that objectivity and critical thinking should be encouraged instead.

A third question concerning the construction of affirmations is whether an affirmation can contain the negative words *no* or *not* for the purposes of setting behavioral limits by stressing what behavior is not acceptable. Setting limits is an important concept in parenting. Clarke (1978) asserts that in order for children to accomplish the developmental task of thinking clearly and separating their feelings from their behavior, parents must assist them in acquiring the skills by setting appropriate limits. For example, typically parents and teachers want to affirm good citizenship. One aspect of good citizenship is obeying laws and rules, such as "no violence," that are created for everyone's comfort and protection. However, common reactions when children are angry may be yelling, hitting, or tantrums. Thus, although adults may want to affirm children's rights to feel their feelings, at the same time they want to insist on appropriate behavior. In this situation a general positive directive, such as, "You can love yourself and others" may not be as helpful or as comforting in guiding angry children as limit-setting affirmations such as, "You may not hurt yourself or others." The difference between these two messages is similar to the rules for ethical professional conduct. Although "Do good" is the understood to be the

general directive for care-giving professionals, "Do no harm" (i.e., a limit-setting statement) is generally understood to be the first rule of professional conduct. The idea here is that limit setting is ultimately beneficial, and therefore affirming for individuals and society, even if people may not like the limit-setting affirmation at the time it is given. Clarke offers the affirmation, "It's OK for you to be angry and I won't let you hurt yourself or others" to help children, as well as frustrated or depressed adults, internalize limits and learn self-control for their own and society's welfare.

A fourth issue concerning positivity is how to appropriately affirm each person's value and place in society without promoting egocentrism. This issue is important because democracies promote an ethic that every person is intrinsically valuable by virtue of their existence, and that every person has a human right to equality of justice and opportunity. Parents and society at large are faced with the daunting task of affirming children as valuable and having certain intrinsic rights because they are alive, while at the same time curbing their natural egocentricity by teaching them that they are not entitled to more rights and privileges than anyone else. Often people with low self-esteem tend to see themselves as not having a right to even exist, let alone possessing other rights (Baumeister et al., 1996). On the other hand, people with inflated self-esteem tend to feel entitled to more than their share of life's resources and opportunities; they tend to be narcissistic and arrogant. Well intentioned but thoughtless affirmations to bolster self-esteem could actually bolster inflated self-esteem instead, with negative results for children and for society. For example, a leader of a workshop on self-esteem urged his participants to stand up and yell, "I am the greatest!" (J. I. Clarke, personal communication, July 6, 1996). The logical implication is, of course, if I am the greatest, then you and others must be less

than me. It also implies that self-esteem is competitive and external, and it suggests that I am entitled. The idea of saying "I am the greatest" is a misinformed understanding of what self-esteem should be, and it is this understanding of self-esteem that Baumeister et al. (1996) were cautioning against when they stated, "the societal pursuit of high self-esteem for everyone may literally end up doing considerable harm" (p. 29). In other words, children should not be taught to repeat and believe affirmations that encourage inflated self-esteem.

In evaluating whether an affirmation is helpful or hurtful, it is important to think about the logical implications of the affirmation. For example, the affirmations, "I am a unique and precious human being," and, "I am an important part of the universe," (Valett, 1991), or "You are special" (Project Charlie, 1987) sound positive and helpful. But if the children being taught to believe these affirmations are not also taught limits, values, and standards of civilized living, these affirmations have the potential to be interpreted as, "I am unique and therefore more precious than others," or, "I am the most important part of the universe," or "I deserve special treatment."

Clarke's (1978) theory of self-esteem reasons that when children's intrinsic value (i.e., Being), is affirmed, and when their capabilities (i.e., Doing) are affirmed, they will not develop too low or too inflated self-esteem. As already described, Clarke emphasizes teaching children limits, standards, and skills as part of affirming existence and capabilities. The idea here is that children should be encouraged to feel good about themselves because they are intrinsically lovable and capable but this view of themselves should be based on a realistic perception of themselves in the greater scheme of life.

Context of Affirmations

Relationship

The relational context of affirmations is stressed in most of the clinical and educational literature reviewed in Chapter II. The importance of relationship in the affirmational technique was implied by Cash (1997), Copeland (1996), Davis (1994), Jones (1985), and Steffenhagen (1990), and stressed by Downing (1988) and Salka (1997). The most frequently cited reason therapists and educators gave for teaching people to affirm themselves is to help clients and students develop positive relationships with themselves. For example, it is thought that therapists model, demonstrate, and act out new ways of relating even while they are overtly engaged in discussing client problems, and it is through the therapeutic relationship, in part, that clients learn new ways of dealing with their problems (Cashdan, 1988; Kegan, 1982; Teyber, 1992). It is hoped that clients will internalize the constructive and helpful relationship they have with their therapists, and thereby, learn new ways of relating to themselves. Therapists understand that they will be effective if the client experiences the therapeutic relationship as powerful. Teaching clients to affirm themselves is one way therapists encourage clients to internalize the positive therapeutic relationship. It may be that outside of the context of a powerful relationship, affirmations may not be affirmations but rather glib and meaningless feel-good manipulations (Holder, 1990).

Clarke (1978) and Clarke and Dawson (1989) assert that parenting, the process of providing nurturance and structure so that children learn skills, limits, and standards in order to become civilized and productive, occurs in the context of strong relationships. Parents offer and model messages to their children, both consciously and unconsciously. The messages are powerful because children perceive their

parents as powerful. It is the powerful and dynamic relationship between parents and children that sets the stage for how children eventually relate to themselves and others as the parental messages become internalized. Clarke encourages parents to consciously and thoughtfully offer developmentally appropriate messages to their children rather than thoughtless, inflated-esteem building messages or negative damaging ones.

The issue of the context in which affirmations are given requires more research. The research by Tjosvold (1978) supports the notion that affirmations are influenced by the context of the relationship. His study confirmed that when high-power persons were affirmed, they tend to have positive attitudes towards the low-power persons' personal attractiveness and negotiating position. However, Tjosvold's research did not explore what happens when low-power persons are affirmed by high-power persons. It seems logical that the meanings people make of their relationship with others may make any statement an affirmation or even a negation. Several questions concerning context remain. For example, what kind of family relationships are needed for children to internalize healthy affirmations? What kind of relationship do people need with themselves to believe affirmations?

Repetition

Many of the authors whose work was reviewed in Chapter II stressed the importance of repeating affirmations several times daily. Without offering any theory or citing research, Downing (1986) stated that children should say three to six affirmational statements at least two times every day, with each affirmation repeated at least six times each session. If the child is unable or unwilling to say or to repeat the affirmations, then several adults can offer the affirmations 6 to 10 times a day.

Cash (1997) prescribed daily Face-to-Face affirmations as a self-help strategy for people suffering from irrational negative body image problems. Altenberg (1992) asserted that affirmations work if people repeat them regularly and in a variety of ways. Jones (1985) had her clients do "Rebirthing" breathing exercises while thinking about the affirmations, a process that was repeated many times. Davis (1994) used positive affirmations and visualizations during hypnosis to help her clients change negative unconscious self-talk and beliefs; she credits repetition and belief in the affirmations as the key to re-educating the unconscious mind. Similarly, Steffenhagen (1997) suggested that people should frequently listen to an affirmation while in a hypnotized state as one of several strategies to build self-esteem.

Two authors offered theoretical support for the need for affirmational repetition. Coue (1922, 1923) theorized that a person's psychological makeup could be influenced for the better by the force of frequent self-repetition of the statement, "Every day, in every way, I'm getting better and better." Coue suggested that the statement should be repeated 20 times morning and evening by holding a knotted string or rosary to aid in counting, if necessary. He warned, however, that the repetitions should be in a relaxed and effortless manner, and that the mind should be allowed to wander and to imagine other things while affirming in order for the unconscious mind to assimilate the positive message. According to his theory, purposeful and focused repetition would engage the resistance of the will, and the affirmation would not be beneficial.

Clarke (1978), Clarke and Dawson (1989), and Clarke and Gesme (1988) emphasized that affirmations need to be repeated by being offered in many ways and over many times in relation to the developmental and recycling needs of people. To explain the need for repetition, Clarke (1981) offered the metaphor of affirmations as

healthy food. She suggested that a nutritious variety of healthy messages needs to be offered, taken in and digested daily in order to develop healthy self-esteem.

Paulhus (1993) offered empirical evidence demonstrating the power of repetition of positive statements. He found that people who "faked good" by repeating untrue positive self-statements tended to incorporate these traits into their self-perception; conversely, people who repeatedly denied negative traits tended to lose their belief in them. However, much more remains to be learned about how the repetition of affirmations may help people learn healthy attitudes and translate them into healthy behaviors.

Ideas for Future Research

There are many opinions, a few theories, and very few empirically established facts concerning the technique of affirmation. Since affirmations are being touted as an effective treatment (Cash, 1997; Copeland, 1996; Davis, 1994; Jones, 1985; Salka, 1997; Steffenhagen, 1990), their validity needs to be established through empirical methods. In this section, ideas for future research will be offered.

The present study was a factor analysis of a transformed version of Clarke's Educational Affirmations. If another factor analysis of the Educational Affirmations is attempted, item-level issues and methodological concerns discussed above need to be addressed. The methodological problems with this study highlight the difficulties of researching developmental affirmations using quantitative methodology. In the discussion of affirmations it was demonstrated that affirmations, although seemingly simple, are far more complex and subjective than they first appear, and that the meanings people make of affirmational statements may be difficult to measure quantitatively. Therefore, qualitative methods may be a more productive way to

approach the preliminary study of affirmations because qualitative approaches attempt to get at the meanings people hold, and at the processes they engage in, when incorporating new information (Denzin & Lincoln, 1994). Qualitative research is frequently conducted by interviewing a few individuals over time or in great depth concerning the questions being studied. It is helpful in forming hypotheses, developing theories, studying complex phenomena (Denzin & Lincoln, 1994), and for conducting program evaluation (Worthen & Sanders, 1987).

To study affirmations, rather than sampling a large number of people as in quantitative approaches, in-depth interviews with group leaders, parents, educators, trainers, and clinicians who use affirmations could be conducted to explore the ways individuals construct, use, and revise affirmations, how people incorporate affirmations into daily life, and to what degree people believe that affirmations affect their behavior, feelings, and attitudes. For example, parents could be randomly assigned into identical parenting classes, except that the first one teaches Educational Affirmations, while the second one does not. Interviews or in-home observations with parents attending the parenting classes where affirmations are taught and practiced could be compared to interviews and observations with parents attending the other parenting class to address qualitative questions such as the following: Are specific affirmations, or the affirmational techniques, noted as important by the affirmation group? Did parents in either group change the way they talk to children and to themselves? Are parents in the first group using any developmentally appropriate affirmations with children? Similar studies could be conducted with educators and therapists, as well as students and clients who utilize affirmations as part of education and treatment strategies.

One possible way to conduct effectiveness studies is to set up an experiment where subjects are faced with failure (e.g., they fail a test or experience an unsuccessful negotiation), and then asked to listen to various forms of affirmations, (e.g., "I am lovable," "You can think for yourself and get help instead of staying in distress," or, "Every day, in every way, I'm getting better and better") offered several ways (e.g., spoken by another person, tape recording, or reading). The subjects could be asked to reflect on what they felt and thought immediately following the affirmation, and whether some affirmations and affirmational delivery techniques were more comforting and helpful than others. Subjects could be asked to identify which affirmations they wanted to hear, and which were most helpful to hear.

Longitudinal qualitative studies could be conducted to answer questions about whether affirmations help children develop healthy self-esteem as demonstrated by healthy attitudes and behavior. Longitudinal qualitative studies could also be conducted to investigate Clarke's (1986a), Erikson's (1963), and Levin's (1974) recycling theories. For example, adults who suffered bad effects of childhood abuse could be taught to use Educational Affirmations to recycle developmental issues. Interviews conducted over the course of several months or years could be analyzed to discern processes of recycling.

More research is needed to determine the most effective affirmational techniques and settings. For example, Coue's (1922, 1923) technique of saying nonspecific affirmations in an effortless relaxed manner, Salka's (1997) method of strategic embedded affirmations, and affirmations offered during hypnosis (Davis, 1994; Jones, 1985; Steffenhagen, 1990) need to be validated by empirical research. Similarly, more research is needed to explore the relative benefits and consequences of you-stated and I-stated affirmations, of specific and nonspecific affirmations, and

of developmental, limit-setting, and therapeutic affirmations. Research is also needed to test various verbal forms and words for relative helpfulness and effectiveness. Other issues that need to be researched include how affirmations are taken in and assimilated; what, if any, developmental and psychological issues impact the saliency of affirmations; and whether self-affirmation is different than hearing affirmations from other people, recordings, or readings.

Conclusion

Affirmations are conscious positive messages intended to bring about or reinforce change in oneself or others. The focus of this study was a factor analysis of a transformed version of Clarke's Educational Affirmations, a set of developmental affirmations based in Transactional Analysis and psychosocial development theory. The results of the analysis yielded two factors that accounted for 28% of the total variance in the data. The items that loaded on the two factors suggested partial support for the hypothesized factors of Being and Doing. However, methodological limitations prevented full exploration of the theories underlying the Educational Affirmations, particularly the theory underlying their construction.

The question must still be asked whether there are messages that people can give to children, to themselves, and to each other that will nurture the development of healthy self-esteem, support personal growth, encourage appropriate behavior, and enhance therapeutic change. Although several ideas and issues were identified in the educational and clinical literature concerning the processes of affirming and being affirmed, there is a paucity research to answer the question. Many questions remain concerning whether affirmational processes are similar or different for treatment,

parenting, teaching, and personal settings. More research is needed to address the many questions raised about the construction, contents, and context of affirmations.

The present state of research and theory suggests that practitioners should be cautious about advocating the use of affirmations in the form of present tense I-statements focusing on a goal, particularly if the goal is unrealistic or chosen by someone else, because of potential problems with dissonance. Affirmations should carefully distinguish between affirming people's behavior and people's existence to avoid engendering feelings of shame. At the present time affirmations in the form of you-statements using the present progressive voice (e.g., *am becoming*) as advocated by Coue (1922, 1923) and Clarke (1996), or using the verb *can*, (e.g., *can learn*) as advocated by Clarke (1996), and that support the developmental and therapeutic processes in general, rather than specific, ways have some empirical support (Aronson et al., 1995; Blanton et al., 1997; Mueller & Dweck, 1998; Paulhus, 1993). It is hoped that the present study will generate more research on the construction, context, and contents of affirmations as a technique for supporting growth and change.

Appendix A

Educational Affirmations

108

EDUCATIONAL AFFIRMATIONS
From HELP! for Parents

by Jean Illsley Clarke

Being
I'm glad you are alive.

Being, Stage I, 0 to 6 months
- I'm glad you are alive.
- You belong here.
- What you need is important to me.
- I'm glad you are you.
- You can grow at your own pace.
- You can feel all of your feelings.
- ♥ I love you and I care for you willingly.

Doing, Stage II, 6 to 18 months
- You can explore and experiment and I will support and protect you.
- You can use all of your senses when you explore.
- You can do things as many times as you need to.
- You can know what you know.
- You can be interested in everything.
- I like to watch you initiate and grow and learn.
- ♥ I love you when you are active and when you are quiet.

Thinking, Stage III, 18 months to 3 years
- I'm glad you are starting to think for yourself.
- It's OK for you to be angry and I won't let you hurt yourself or others.
- You can say no and push and test limits as much as you need to.
- You can learn to think for yourself and I will think for myself.
- You can think and feel at the same time.
- You can know what you need and ask for help.
- ♥ You can become separate from me and I will continue to love you.

Identity and Power, Stage IV, 3 to 6 years
- You can explore who you are and find out who other people are.
- You can be powerful and ask for help at the same time.
- You can try out different roles and ways of being powerful.
- You can find out the results of your behavior.
- All of your feelings are OK with me.
- You can learn what is pretend and what is real.
- ♥ I love who you are.

Structure, Stage V, 6 to 12 years
- You can think before you say yes or no and learn from your mistakes.
- You can trust your intuition to help you decide what to do.
- You can find a way of doing things that works for you.
- You can learn the rules that help you live with others.
- You can learn when and how to disagree.
- You can think for yourself and get help instead of staying in distress.
- ♥ I love you even when we differ; I love growing with you.

Identity, Sexuality and Separation, Stage VI, adolescence
- You can know who you are and learn and practice skills for independence.
- You can learn the difference between sex and nurturing and be responsible for your needs and behavior.
- You can develop your own interests, relationships and causes.
- You can learn to use old skills in new ways.
- You can grow in your maleness or femaleness and still be dependent at times.
- I look forward to knowing you as an adult.
- ♥ My love is always with you. I trust you to ask for my support.

Interdependence, Stage VII, adult years
- Your needs are important.
- You can be uniquely yourself and honor the uniqueness of others.
- You can be independent and interdependent.
- Through the years you can expand your commitments to your own growth, to your family, your friends, your community and to all humankind.
- You can build and examine your commitments to your values and causes, your roles and your tasks.
- You can be responsible for your contributions to each of your commitments.
- You can be creative, competent, productive and joyful.
- You can trust your inner wisdom.
- You can say your hellos and good-byes to people, roles, dreams, and decisions.
- You can finish each part of your journey and look forward to the next.
- ♥ Your love matures and expands.
- ♥ You are lovable at every age.

From the books *HELP! for Parents* by Clarke, et. al. HarperSanFrancisco and *Growing Up Again* by Clarke and Dawson. Harper-Hazelden.

These Educational Affirmations are available as complete sets in oval stickers and oval laminated discs. They are color coded to indicate the age of first major focus. The "love affirmations," are also available as a separate package.

For information about ordering the books, the affirmation ovals, Sing Yes! affirmation songs, or games using the affirmations, write to: Daisy Press, 16535 9th Ave. N., Minneapolis, MN 55447 or Carole Gesme, 4036 Kerry Ct., Minnetonka, MN 55345.

Being
I love you and I care for you willingly

Doing
I love you when you are active and when you are quiet.

Thinking
You can become separate from me and I will continue to love you.

Identity and Power
I love who you are.

Structure
I love you even when we differ: I love growing with you.

Identity, Sexuality, Separation
My love is always with you. I trust you to ask for my support.

Interdependence
You are lovable at every age.

Interdependence
Your love matures and expands.

© 1986

Jean Illsley Clarke
J I Consultants
16535 9th Avenue N. Minneapolis MN 55447 612 473-1840

ABOUT THE AFFIRMATIONS

1. **What are affirmations?**
   They are life supporting messages — anything we do or say that lets others know that we believe they are lovable and capable. These messages affirm people's need and ability to grow and to do their developmental tasks.

2. **What do the ages by the stage numbers mean?**
   The ages indicate the time at which each message first gets strong focus. After that we refocus on each developmental task many times according to our rhythms of growth or in response to our life experiences. Each time we refocus we have the chance to learn to apply the skills in more sophisticated ways.

3. **What do you do with the colored ovals?**
   Look at them and read them. Post them on the refrigerator, bathroom mirror, bulletin board, dashboard. Stick them on a book, gift, yourself. Put them in a lunch box, letter, greeting card, birthday present. Carry them in your pocket, billfold, purse. Keep a set by the telephone. Play with them with another person — read the ones they want to hear. Spread them face down on a table. Pick up three and read them to yourself. Choose four or five to focus on for a week. Read them aloud five times morning and night.

4. **Are there other ways to give the messages?**
   Yes, lots. You give them by the way you touch, look and respond to, spend time with and pay attention to people.

5. **Why is it worthwhile to use these affirmations?**
   We can use affirmations to help us remember that we are capable people. They help us love and care for others. They remind us that we are always growing and that there is hope

6. **How can affirmations help us?**
   We can use affirmations to help us raise our self-esteem so that we have healthier bodies and healthier minds. Our posture improves, we are more attractive, productive, loving and joyful

7. **What are the "Love Affirmations?"**
   The "love affirmations" are marked with hearts. They are the affirmations that say "I love you unconditionally for yourself and for doing your developmental tasks."

8. **Are there any rules?**
   Yes. Don't give an affirmation to someone else at a moment when you don't feel and believe it. If you do, they may pick up the conflict in it and feel confused instead of affirmed. If you can't give some of these messages to your child, do what you need to do for yourself (get help, rest, education, therapy, whatever) so that you can believe the messages and give them.

   Do give yourself affirmations even when you think you don't believe them. You will be tapping into the healthy, loving part of yourself.

Questions and answers by Jean Illsley Clarke & Carole Gesme

The affirmations are taken from the *Help! for Parents* books by Clarke et. al., HarperSanFrancisco, and *Growing Up Again* by Clarke and Dawson, Harper-Hazelden. To order affirmations printed on laminated large or small ovals write to: Daisy Press, 16535 9th Ave. N., Minneapolis, MN 55447 (612) 473-1840 or Carole Gesme, 4036 Kerry Court, Minnetonka, MN 55345, (612) 938-9163

Appendix B

Preliminary Educational Affirmations Scale (PEAS)

111

PRELIMINARY EDUCATIONAL AFFIRMATIONS SCALE
Based on Educational Affirmations by J. I. Clarke. Developed by Kaye L. Centers

Please respond to the following statements by filling in the appropriate space on the answer sheet. Mark how often you agree with each statement. ***There are no right or wrong answers.

(0) Never True   (1) Rarely True   (2) Seldom True   (3) Sometimes True
(4) Often True   (5) Usually True   (6) Always True.

1. I am glad that I am me.
2. I feel that I don't belong with my significant others.
3. I am able to grow at my own pace.
4. I take good care of myself.
5. I am sorry that I was born.
6. What I need is not important to me.
7. I willingly accept love and care from others.
8. I am not able to feel all of my feelings.
9. I am glad that I am alive.
10. I use all of my senses when I explore.
11. I have many interests.
12. I am able to experiment with new ideas and things.
13. I am not able to accept myself when I am quiet.
14. I do not practice things as many times as I need to.
15. I am afraid to initiate relationships and activities.
16. I am not sure about what I really know.
17. I like to grow.
18. I am not able to explore things or ideas.
19. I love and accept myself when I am active.
20. I like to learn.
21. When I express anger I do not hurt myself.
22. I cannot be separate from others and still love them.
23. I know what I need.
24. I ask for help when I need it.
25. I do not use my feelings to help me think clearly about what to do.
26. It is okay for me to be angry.

27. I do not think for myself.
28. I say no when I need to say no.
29. I think and feel for others.
30. When I express anger, I hurt others.
31. I stretch myself and test my limits.
32. I am not able to think and feel at the same time.
33. I love who I am.
34. I do not know how to learn new ways of being effective and powerful.
35. I do not try out different roles.
36. I know the difference between reality and fantasy.
37. I can accept all of my feelings.
38. I continue to explore who I am.
39. I make assumptions about other people instead of finding out who they really are.
40. I am not able to be powerful and ask for help at the same time.
41. I accept responsibility for the results of my behavior.
42. If I disagree with others, I feel bad about myself.
43. I do not know good rules to help me live with others.
44. I know when I should disagree and do.
45. I stay in distress instead of getting help.
46. I let other people do my thinking for me.
47. I have trouble finding ways of doing things that work for me.
48. I can trust my intuition to help me decide what to do.
49. I do not learn from my mistakes.

50. I think before I say yes or no.

51. I have trouble thinking for myself.

52. I feel lovable even when I differ with others.

53. I love growing with other people.

54. I do not know how to disagree.

55. I can love someone and disagree with him or her at the same time.

56. I am a good friend to myself.

57. I do not examine my involvement in my interests and what I do.

58. I am dependent when I need to be.

59. I ask for support when I need it.

60. I do not learn new roles when I need them.

61. I grow in my maleness/femaleness.

62. I learn to use old skills in new ways.

63. I do not look forward to the next stage of my life.

64. I am confused about the difference between sex and nurturing.

65. I examine how I participate in relationships.

66. I get my sexual needs met in a responsible way.

67. I do not love myself very much.

68. I do not get involved in social causes even when I value them.

69. I do not evaluate the social causes I support.

70. I pursue my own interests in a responsible way.

71. I get my nurturing needs met in a responsible way.

72. I dread the next stage of my life.

73. I welcome opportunities to create new dreams.

74. I have difficulty grieving when people leave my life.

75. I periodically examine who I am.

76. I feel incompetent.

77. I am productive.

78. I am maturing in my ability to love myself and others.

79. I am joyful.

80. I have a life-long commitment to my personal growth.

81. I look forward to the next part of my life journey.

82. I am unable to develop relationships with new people.

83. I do not examine my commitment to what I do.

84. My needs are not important.

85. I cannot be uniquely myself.

86. I am creative.

87. I have difficulty moving between independence and interdependence.

88. I do not honor the uniqueness of others.

89. I am able to take on new roles.

90. I am able to say goodbye to dreams.

91. I continue to expand my commitments to all humankind.

92. I have trouble making my love extend to more and more people.

93. I do not fulfill my responsibility for contributions to each of my commitments.

94. I am committed to my family.

95. I am unable to leave old roles when I need to.

96. I do not feel committed to my community.

97. I have difficulty making decisions.

98. I do not trust my inner wisdom.

99. My lovableness do not depend on my age.

100. I am able to finish each part of my life journey.

101. I am committed to what I do.

102. I can expand my commitments to all creation.

103. I keep my behavior consistent with who I am.

Appendix C

Demographic Data Form

114

EDUCATIONAL AFFIRMATIONS SCALE
DEMOGRAPHIC DATA FORM
by Kaye L. Centers

This is a research survey. Please mark the appropriate number on the answer sheet that corresponds with your answers..
This is anonymous and confidential information. Do not use your name. Thank you for your help.

Age: Please write your age on the top of the answer sheet in space provided.

Sex:
0   Male
1   Female

Marital Status:
0   Single
1   Married/Partnered
3   Divorced
4   Widowed

Number of Children : indicate the correct number (from 0, no children) through 9 (more than 8 children)

Educational Level: The highest degree I have earned is:
0   Less than 12 years
1   High School Graduate
2   Associates Degree
3   Bachelor Degree
4   Graduate Degree

Ethnicity: I self-identify as:
0   White
1   African American
3   Hispanic
4   Asian American
5   Native American
6   Multiracial
7   Other_____

Sexual Orientation: I self-identify as:
0   Heterosexual
1   Gay/Lesbian
3   Bisexual

Income: The income level that best describes my current household:
0    $20,000 or less
1    $20,001 to$50,000
3    $50,001 to $80,000
4   Above $80,001

Public Assistance:
0   No
1   Yes

Physical Abuse: I have been physically abused:
0   Never
1   As a child
2   As an adult
3   As a child and as an adult

Sexual Abuse: I have been sexually abused:
0   Never
1   As a child
2   As an adult
3   As a child and as an adult

Substance Abuse: Drugs and/or alcohol has been abused:
0   No
1   In my family of origin (FoO)
2   In my current family
3   In my FoO and in my current Family

Substance Abuse: Drugs and/or alcohol has been abused:
0   No
1   By me
2   By other family member (s)
3   By me and by family members

Therapy: I have been involved in the following:
0   None of following
1   Group Therapy
2   Support Groups
3   Psychoeducational Classes
4   Self-help Groups
5   Individual psychotherapy
6   Several of the above

Current Employment Status (circle only one)
In labor force:
0   Employed full-time (>35 hours per week)
1   Employed part-time(<35 hours per week)
2   Unemployed (laid-off; fired; seasonal; looking for work)

Not in labor force:
0   Homemaker
1   Student
2   Retired
3   Other_____

Appendix D

Answer Sheet

117

101 200 ON SIDE 2   NCS Trans-Optic 08-7317 2019   A2804-5

SIDE 2

Appendix E

Script for Instrument Administrator to Use

119

Western Michigan University
Department of Counselor Education and Counseling Psychology

Title of Investigation: Educational Affirmations for Healthy Self-Esteem: An Exploratory Factor Analysis
Principal Investigator: Michael W. Bahr, Ph.D.
Research Associate: Kaye L. Centers, M. A.

Dear Instructor:

Please read the following script to your students:

We have an opportunity to participate in some important research related to human development and self-esteem. The researcher, Kaye Centers, needs approximately 600 people to respond to two forms. Please look at her cover letter while I read it:

Dear Participant:

I am a graduate student in Community Agency Counseling at Western Michigan University. For my doctoral dissertation, I am conducting some exciting research on Educational Affirmations by Clarke. In order to complete this project I need your help. Therefore, I invite you to participate in my study by filling out two simple forms. The first is called the Preliminary Educational Affirmations Scale (PEAS) which is a list of statements based on the affirmations. The second one is an anonymous and confidential demographic data form. It will take approximately 20 to 30 minutes of your time.

No adverse effects are expected by participating in this survey. One potential (but remote) risk of this project is that you may become upset by an item and may want to discuss your personal issues. If this happens, ask your instructor for a list of counseling resources in your community that you can contact. Please understand, however, that you will be responsible for the cost of therapy if you choose to pursue it.

A benefit to you from participating in this activity is that you have the chance to learn more about yourself and your feelings. You also get a bag or pretzels or candy for participating! You will help others because the completed research project may benefit many people, especially in the field of family life education, parent training, and human development.

Please understand that all the information collected is confidential and anonymous. This means that your name will not appear on anything, and I will not know who you are. No list of participants' names will be kept, and there will be no way to identify any individual. All forms will be retained for three years in a locked file in the principal investigator's office.

Participation is totally voluntary and you can withdraw from the study up until the time you place your packet in the envelope. Your class grade will not be affected by whether you participate or not. If you have any questions or concerns about this study, you are welcome to contact either Kaye Centers at 616-324-0129 or Dr. Michael Bahr at 616-387-5945. You may also contact the Chair of Human Subjects Institutional Review Board at 616-387-8293

or the Vice President for Research at 616-387-8298 with any concerns that you have. Please keep this letter if you participate, so you can keep this information.

Your participation will be greatly appreciated. Thank you!

Sincerely, Kaye L. Centers, A Struggling Graduate Student

Before you begin, write you age on the answer sheet in the space provided at the top of the form.

Now look at the PEAS sheet. First, read the instructions. You will read each item, then mark on the answer sheet how often you agree with the statement. For example, look at item # 1. "I am glad that I am me." Now look at the answer sheet, and find the line for item #1. Fill in the oval under 0 if this statement is NEVER TRUE for you, 1 if is RARELY TRUE, 2 if it is SELDOM TRUE, and so on. If you do not understand or you absolutely do not know, mark 7 for NO RESPONSE. (Do not use this category often but try to use responses 0 through 6.) Work quickly and do not spend much time on any item. It is best if you mark down your first "gut" response. Please understand that there is no right or wrong answers and it is most helpful if you are honest.

When you have filled in the PEAS form, go on to the demographic form. Note that the items are numbered as a continuation of the PEAS. (Sex is =104, Marital Status, is =105, etc.). For the demographic items, fill in the oval number that corresponds with your answer. For example, since I am a female (male), I would fill in oval 0 (1) for item 104. It is most helpful for the research if you fill out all of the items accurately. Remember, DO NOT WRITE YOUR NAME ON ANYTHING!!

The affirmations have been widely used with individuals who have had certain kinds of bad experiences. Therefore, there are several demographic questions of a more personal nature, such as whether a person has been physically or sexually abused. Remember that your responses are anonymous and confidential.

*When you are finished, keep the cover letter. Take your packet and place it in this envelope that I will leave on this spot (*Show them the spot). *After you have handed in your packet, I will give you your choice of a bag of candy or pretzels, a gift from the researcher for participating. When all of the packets are handed in, I will seal the envelope in front of all of you so you will see I will not look at anything in it. The researcher will pick up the sealed envelops later. She will not share the contents with anyone except her supervisor, Dr. Bahr. Please understand that when the information has been analyzed by the computer, no individual responses to the questions will ever be used. All of the information will be reported in aggregate form only.*

Remember, your grade in this class will in no way be impacted (positively or negatively) by your participation in this study. I urge you to take the time to help the cause of science by participating.

You may start now. If you do not want to participate, hand me back the packets now.

When participants have finished, give them the treat I have provided. When every one has finished, seal the envelope in front of everyone. Return it to Jill Claeys after your class.

Thank you for taking time out of your busy classes to help with this valuable project. I appreciate it!! Be sure to get a treat for yourself.

Kaye L. Centers

Appendix F

Letter to Participants

123

Western Michigan University
Department of Counselor Education and Counseling Psychology

Title of Investigation: Educational Affirmations for Healthy Self-Esteem: An Exploratory Factor Analysis
Principal Investigator: Michael W. Bahr, Ph.D.
Research Associate: Kaye L. Centers, M. A.

Dear Participant:

I am a graduate student in Community Agency Counseling at Western Michigan University. For my doctoral dissertation, I am conducting some exciting research on Educational Affirmations by Clarke. In order to complete this project I need your help. Therefore, I invite you to participate in my study by filling out two simple forms. The first is called the Preliminary Educational Affirmations Scale (PEAS) which is a list of statements based on the affirmations. The second one is an anonymous and confidential demographic data form. It will take approximately 20 to 30 minutes of your time.

No adverse effects are expected by participating in this survey. One potential (but remote) risk of this project is that you may become upset by an item and may want to discuss your personal issues. If this happens, ask your instructor for a list of counseling resources in your community that you can contact. Please understand, however, that you will be responsible for the cost of therapy if you choose to pursue it.

A benefit to you from participating in this activity is that you have the chance to learn more about yourself and your feelings. **You also get a bag or pretzels or candy for participating!** You will help others because the completed research project may benefit many people, especially in the field of family life education, parent training, and human development.

Please understand that all the information collected is confidential and anonymous. This means that your name will not appear on anything, and I will not know who you are. No list of participants' names will be kept, and there will be no way to identify any individual. All forms will be retained for three years in a locked file in the principal investigator's office.

Participation is totally voluntary and you can withdraw from the study up until the time you place your packet in the envelope. Your class grade will not be affected by whether you participate or not. If you have any questions or concerns about this study, you are welcome to contact either Kaye Centers at 616-324-0129 or Michael Bahr at 616-387-5945. You may also contact the Chair of Human Subjects Institutional Review Board at 616-387-8293 or the Vice President for Research at 616-387-8298 with any concerns that you have. Please keep this letter if you participate, so you can keep this information.

Your participation will be greatly appreciated. Thank you!

Sincerely,

Kaye L. Centers, A Struggling Graduate Student

Appendix G

Pearson's Correlation Matrix

125

Pearson Correlation Matrix

	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12
V1	1.000											
V2	-.209	1.000										
V3	.367	-.199	1.000									
V4	.417	-.150	.285	1.000								
V5	-.348	.281	-.197	-.207	1.000							
V6	-.136	.100	-.125	-.153	.259	1.000						
V7	.328	-.189	.283	.249	-.261	-.124	1.000					
V8	-.211	.129	-.235	-.078	.229	.214	-.270	1.000				
V9	.524	-.164	.301	.340	-.342	-.140	.388	-.224	1.000			
V10	.296	-.070	.207	.308	-.077	-.115	.207	-.180	.253	1.000		
V11	.312	-.072	.164	.292	-.170	-.123	.275	-.136	.341	.348	1.000	
V12	.263	-.127	.191	.302	-.099	-.063	.208	-.140	.251	.394	.548	1.000
V13	-.135	.172	-.129	-.068	.207	.142	-.059	.214	-.096	-.041	-.080	-.093
V14	-.143	.133	-.062	-.049	.165	.125	-.015	.157	-.043	-.049	-.053	-.025
V15	-.273	.242	-.214	-.192	.237	.127	-.276	.280	-.191	-.143	-.211	-.212
V16	-.222	.200	-.190	-.193	.259	.210	-.151	.259	-.139	-.132	-.192	-.142
V17	.306	-.155	.224	.302	-.163	-.135	.278	-.087	.436	.318	.324	.275
V18	-.195	.283	-.186	-.161	.206	.129	-.185	.280	-.150	-.189	-.279	-.319
V19	.415	-.152	.331	.297	-.166	-.123	.302	-.166	.402	.239	.362	.281
V20	.249	-.038	.177	.143	-.185	-.090	.186	-.160	.284	.244	.270	.231
V21	.051	-.104	.078	.085	-.093	-.084	.091	-.111	.141	.107	.056	.058
V22	-.016	.234	-.030	-.020	.215	.137	-.108	.179	-.016	-.038	-.089	-.038
V23	.428	-.155	.335	.325	-.150	-.151	.273	-.169	.296	.281	.314	.309
V24	.322	-.071	.300	.285	-.075	-.178	.319	-.175	.280	.359	.225	.303
V25	-.052	.182	-.090	-.058	.058	.146	-.085	.207	-.028	-.026	-.085	-.115
V26	.080	-.066	.172	-.027	-.061	-.019	.113	-.094	.124	.162	.114	.175
V27	-.092	.132	-.157	-.108	.210	.176	-.034	.219	-.111	-.090	-.172	-.203
V28	.300	-.187	.257	.330	-.167	-.162	.201	-.146	.269	.305	.251	.211

	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12
V29	.068	-.040	.061	.125	-.019	-.022	.151	.021	.096	.119	.056	.144
V30	-.110	.145	-.137	-.072	.182	.033	-.075	.174	-.112	-.135	-.190	-.090
V31	.140	.001	.023	.144	-.018	.036	.057	.021	.101	.238	.285	.298
V32	-.220	.237	-.243	-.225	.303	.205	-.204	.240	-.193	-.130	-.186	-.115
V33	.603	-.210	.355	.347	-.281	-.143	.381	-.273	.497	.195	.322	.250
V34	-.216	.119	-.194	-.186	.166	.197	-.164	.248	-.183	-.195	-.205	-.188
V35	-.079	.105	-.079	-.087	.108	.133	-.073	.163	-.077	-.105	-.094	-.178
V36	.159	-.119	.261	.111	-.146	.006	.167	-.116	.280	.140	.181	.110
V37	.331	-.177	.261	.195	-.231	-.080	.295	-.251	.293	.177	.216	.250
V38	.284	-.118	.167	.252	-.121	-.089	.232	-.122	.274	.294	.238	.313
V39	-.121	.147	-.086	-.088	.094	.174	-.137	.175	-.138	-.175	-.022	-.034
V40	-.165	.204	-.193	-.185	.161	.164	-.120	.206	-.129	-.231	-.132	-.136
V41	.191	-.115	.213	.184	-.131	-.047	.179	-.089	.169	.226	.198	.209
V42	-.181	.145	-.218	-.156	.230	.141	-.137	.165	-.172	-.135	-.168	-.093
V43	-.167	.171	-.182	-.196	.212	.099	-.154	.181	-.144	-.073	-.134	-.094
V44	.167	-.105	.305	.211	-.136	-.154	.222	-.130	.198	.247	.196	.220
V45	-.271	.208	-.236	-.138	.273	.227	-.199	.250	-.214	-.038	-.122	-.101
V46	-.144	.196	-.197	-.155	.325	.222	-.141	.235	-.108	-.144	-.179	-.074
V47	-.273	.192	-.186	-.197	.193	.214	-.199	.295	-.197	-.212	-.219	-.148
V48	.188	-.120	.236	.150	-.082	-.106	.131	-.130	.145	.227	.175	.209
V49	-.097	.120	-.124	-.108	.203	.190	-.199	.301	-.123	-.075	-.111	-.102
V50	.229	-.013	.245	.241	-.069	-.214	.219	-.119	.212	.208	.163	.160
V51	-.118	.143	-.175	-.053	.250	.131	-.098	.197	-.129	-.060	-.073	-.063
V52	.311	-.237	.232	.235	-.179	-.093	.263	-.060	.251	.226	.210	.208
V53	.291	-.164	.278	.274	-.189	.058	.352	-.140	.335	.226	.222	.241
V54	-.168	.151	-.184	-.149	.220	.226	-.167	.282	-.182	-.199	-.204	-.170
V55	.223	-.211	.288	.239	-.145	-.133	.245	-.182	.282	.227	.232	.239
V56	.481	-.123	.352	.412	-.180	-.134	.274	-.151	.483	.249	.360	.312
V57	-.097	.066	-.100	-.115	.136	.159	-.101	.220	-.105	-.082	-.167	-.117
V58	.163	-.153	.147	.138	-.073	-.021	.170	.049	.185	.092	.133	.107

	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12
V59	.297	-.097	.224	.283	-.125	-.149	.279	.125	.303	.226	.250	.251
V60	-.101	.143	-.141	-.095	.267	.251	-.071	.206	-.123	-.130	-.167	-.215
V61	.317	-.138	.290	.296	-.153	-.154	.272	.173	.341	.186	.248	.268
V62	.293	-.041	.234	.221	-.076	-.122	.204	.078	.222	.239	.330	.291
V63	-.220	.213	-.163	-.144	.237	.088	-.150	.212	.141	.007	-.112	-.082
V64	-.148	.141	-.112	-.100	.180	.073	-.130	.183	-.113	-.047	-.139	-.075
V65	.123	.003	.109	.209	-.098	-.178	.198	.199	.096	.168	.120	.145
V66	.086	-.113	.181	.108	-.100	-.035	.080	.149	.171	.101	.077	.094
V67	-.460	.253	-.312	-.278	.370	.123	-.324	.323	-.356	-.154	-.284	-.203
V68	-.122	.183	-.140	-.132	.200	.042	-.069	.121	-.084	-.033	-.191	-.144
V69	-.136	.172	-.085	-.080	.182	.158	-.105	.173	-.073	-.092	-.180	-.107
V70	.275	-.159	.260	.202	-.241	-.146	.325	.253	.263	.230	.227	.191
V71	.218	-.228	.295	.145	-.233	-.094	.273	.268	.222	.150	.167	.181
V72	-.269	.205	-.182	-.113	.316	.160	-.178	.261	-.220	-.135	-.212	-.169
V73	.238	-.087	.157	.184	-.208	-.129	.207	.129	.281	.229	.320	.300
V74	-.017	.063	-.116	-.039	.080	.047	-.111	.242	-.007	-.065	-.013	-.011
V75	.196	-.043	.093	.203	-.120	-.131	.158	.180	.123	.215	.162	.181
V76	-.263	.212	-.239	-.219	.272	.130	-.208	.256	-.170	-.117	-.184	-.157
V77	.342	-.149	.210	.329	-.138	-.169	.223	.196	.257	.259	.309	.278
V78	.363	.143	.234	.275	-.200	-.157	.401	.197	.356	.180	.319	.244
V79	.508	-.246	.299	.344	-.192	-.144	.322	.151	.395	.240	.309	.274
V80	.445	-.127	.287	.330	-.171	-.127	.343	.191	-.384	.270	.282	.292
V81	.424	-.166	.242	.271	-.183	-.171	.264	.168	.350	.177	.253	.198
V82	-.210	.222	-.235	-.154	.205	.156	-.212	.316	.153	-.131	-.184	-.125
V83	-.193	.144	-.138	-.174	.189	.219	-.139	.286	.075	-.134	-.176	-.127
V84	-.172	.116	-.200	-.168	.163	.354	-.173	.253	.163	-.156	-.184	-.164
V85	-.204	.210	-.258	-.128	.181	.199	-.129	.343	.178	-.158	-.252	-.212
V86	.255	-.040	.155	.224	-.126	-.096	.159	.111	-.233	.243	.376	.350
V87	-.153	.178	-.187	-.093	.185	.142	-.141	.183	-.132	-.165	-.094	-.160
V88	-.178	.124	-.131	-.137	.110	.161	-.165	.246	-.147	-.098	-.127	-.059

	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12
V89	.293	-.191	.207	.182	-.160	-.143	.183	.111	-.230	.191	.285	.304
V90	.149	-.039	.150	.168	-.031	-.032	.125	.156	.094	.099	.062	.095
V91	.258	-.145	.208	.228	-.123	-.093	.232	.161	-.195	.263	.201	.244
V92	-.162	.167	-.157	-.126	.224	.136	-.228	.249	-.088	-.153	-.108	-.093
V93	-.088	.110	-.191	-.111	.245	.169	-.138	.234	.083	-.088	-.117	-.122
V94	.159	-.117	.154	.141	-.123	-.060	.226	.135	.243	.144	.216	.128
V95	-.170	.127	-.193	-.124	.157	.217	-.103	.241	.140	-.110	-.120	-.064
V96	-.079	.150	-.143	-.116	.125	.132	-.122	.135	-.056	-.056	-.092	-.076
V97	-.223	.109	-.206	-.165	.193	.234	-.155	.223	-.168	-.127	-.140	-.139
V98	-.265	.154	-.240	-.175	.233	.278	-.190	.290	.179	-.159	-.209	-.151
V99	.123	-.032	.087	.046	-.049	-.025	.064	.137	-.169	.062	.101	.117
V100	.326	-.075	.281	.185	-.077	-.080	.204	.178	.277	.196	.142	.205
V101	.407	-.097	.253	.266	-.173	-.077	.260	.229	.329	.237	.306	.257
V102	.276	-.118	.222	.189	-.062	-.051	.252	.148	.204	.286	.276	.289
V103	.353	-.119	.220	.275	-.140	-.102	.225	.160	.258	.219	.269	.232

	V13	V14	V15	V16	V17	V18	V19	V20	V21	V22	V23	V24
V13	1.000											
V14	.214	1.000										
V15	.174	.256	1.000									
V16	.216	.240	.359	1.000								
V17	-.119	-.012	.127	-.247	1.000							
V18	.171	.187	.294	.343	-.266	1.000						
V19	-.143	-.059	-.200	-.180	.418	-.161	1.000					
V20	-.170	-.140	-.088	-.104	.262	-.180	.373	1.000				
V21	-.006	-.066	-.039	-.090	.133	-.098	.078	.146	1.000			
V22	.194	.107	.136	.214	-.118	.180	-.103	-.190	-.221	1.000		
V23	-.085	-.020	-.196	-.195	.252	-.244	.354	.164	.126	-.005	1.000	
V24	-.093	-.081	-.305	-.181	.230	-.130	.269	.169	.079	-.014	.323	1.000
V25	.205	.172	.082	.122	-.059	.169	-.057	-.095	-.033	.121	-.052	-.036
V26	.023	-.089	-.039	.017	.096	-.054	.090	.096	.128	-.047	.167	.107
V27	.238	.121	.231	.283	-.132	.264	-.129	-.192	-.149	.239	-.137	-.096
V28	-.089	-.110	-.168	-.191	.244	-.270	.197	.120	.102	-.078	.300	.333
V29	.033	.037	-.034	.010	.175	-.088	.162	.086	-.015	.020	.098	.106
V30	.091	.107	.170	.186	-.123	.237	-.057	-.127	-.332	.191	-.098	-.081
V31	.007	-.086	-.021	-.059	.253	-.194	.252	.207	.013	-.063	.203	.082
V32	.189	.115	.214	.282	-.187	.243	-.147	-.146	-.140	.273	-.127	-.116
V33	-.144	-.067	-.305	-.242	.344	-.237	.462	.290	.129	-.093	.421	.344
V34	.164	.199	.243	.317	-.175	.311	-.163	-.214	-.174	.168	-.241	-.238
V35	.101	.213	.149	.213	-.129	.176	-.143	-.099	-.066	.116	-.060	-.182
V36	-.034	-.046	-.133	-.089	.189	-.148	.237	.292	.219	-.117	.179	.164
V37	-.165	-.077	-.217	-.264	.249	-.153	.232	.230	.221	-.149	.290	.263
V38	-.052	.022	-.112	-.090	.378	-.194	.291	.258	.155	-.057	.338	.237
V39	.072	.182	.204	.181	-.155	.143	-.084	-.069	-.064	.119	-.082	-.109
V40	.140	.155	.232	.277	-.169	.279	-.126	-.136	-.144	.287	-.172	-.280
V41	-.085	-.121	-.127	-.049	.210	-.185	.204	.305	.109	.062	-.287	.218
V42	.170	.120	.243	.234	-.153	.236	-.148	-.149	-.143	-.190	-.148	-.149

	V13	V14	V15	V16	V17	V18	V19	V20	V21	V22	V23	V24
V43	.187	.207	.281	.262	-.191	.226	-.210	-.215	-.114	.246	-.192	-.172
V44	-.014	-.059	-.144	-.131	.238	-.212	.229	.221	.174	-.013	.267	.320
V45	.214	.218	.375	.293	-.159	.243	-.205	-.113	-.224	.229	-.220	-.320
V46	.188	.146	.257	.260	-.126	.257	-.125	-.231	-.189	.347	-.128	-.109
V47	.189	.225	.302	.305	-.169	.400	-.167	-.247	-.210	.184	-.270	-.203
V48	-.109	-.092	-.164	-.127	.162	-.189	.271	.254	.104	-.128	.282	.198
V49	.202	.104	.107	.218	-.144	.214	-.150	-.168	-.058	.221	-.138	-.123
V50	-.068	-.060	-.145	-.125	.196	-.151	.206	.167	.091	-.015	.263	.328
V51	.231	.137	.195	.235	-.115	.251	-.120	-.191	-.075	.207	-.080	-.085
V52	-.144	-.124	-.220	-.184	.232	-.204	.247	.153	.055	-.016	.250	.212
V53	-.073	.003	-.204	-.078	.309	-.180	.356	.283	.120	-.118	.285	.287
V54	.144	.168	.254	.252	-.166	.336	-.179	-.170	-.097	.204	-.140	-.197
V55	-.134	-.112	-.194	-.246	.306	-.208	.235	.251	.121	-.174	.235	.230
V56	-.187	-.115	-.172	-.154	.287	-.185	.413	.304	.133	-.045	.445	.327
V57	.179	.135	.153	.243	-.136	.237	-.145	-.151	-.097	.090	-.155	-.090
V58	-.063	-.035	-.131	-.116	.139	-.019	.190	.075	.035	-.017	.170	.214
V59	-.015	-.069	-.282	-.235	.265	-.154	.219	.094	.113	.006	.298	.540
V60	.185	.185	.236	.203	-.165	.292	-.171	-.188	-.056	.170	-.146	-.138
V61	-.117	-.073	-.187	-.199	.332	-.178	.299	.231	.124	-.073	.324	.296
V62	-.131	-.126	-.185	-.245	.201	-.142	.314	.281	.085	-.095	.313	.286
V63	.171	.152	.150	.224	-.160	.287	-.182	-.095	-.088	.137	-.166	-.117
V64	.144	-.074	.098	.157	-.156	.212	-.153	-.142	-.106	.211	-.154	-.039
V65	-.090	-.016	-.200	-.107	.184	-.108	.160	.202	.099	-.078	.243	.266
V66	-.149	.075	-.097	-.092	.143	-.126	.214	.204	.111	-.135	.155	.183
V67	.212	.159	.292	.264	-.269	.307	-.351	-.171	-.141	.169	-.311	-.244
V68	.145	-.157	.193	.182	-.100	.233	-.189	-.119	.017	.125	-.120	-.093
V69	.167	-.136	.182	.140	-.166	.234	-.185	-.177	-.058	.140	-.139	-.123
V70	-.190	-.085	-.194	-.183	.263	-.239	.385	.400	.202	-.228	.283	.269
V71	-.157	-.063	-.219	-.140	.210	-.254	.273	.238	.155	-.199	.274	.189
V72	.176	.133	.237	.239	-.185	.305	-.253	-.131	-.135	.265	-.165	-.159

	V13	V14	V15	V16	V17	V18	V19	V20	V21	V22	V23	V24
V73	-.128	-.028	-.131	-.126	.317	-.205	.391	.316	.126	-.178	.233	.219
V74	.105	-.197	.193	.127	.007	.198	-.056	-.060	-.036	.193	-.046	-.067
V75	-.118	-.028	-.076	-.077	.225	-.179	.191	.180	.100	-.076	.202	.194
V76	.135	-.160	.293	.275	-.162	.212	-.230	-.167	-.073	.113	-.212	-.231
V77	-.107	-.159	-.203	-.244	.319	-.269	.363	.350	.167	-.134	.418	.316
V78	-.101	-.059	-.210	-.220	.355	-.161	.406	.216	.171	-.146	.376	.331
V79	-.084	-.085	-.225	-.172	.349	-.226	.452	.249	.134	-.125	.340	.318
V80	-.087	-.020	-.203	-.213	.398	-.229	.427	.282	.121	-.088	.403	.345
V81	-.106	-.055	-.142	-.182	.316	-.194	.415	.222	.091	-.130	.330	.249
V82	.192	.065	.319	.268	-.176	.305	-.199	-.184	-.095	.248	-.181	-.148
V83	.238	.176	.245	.196	-.113	.224	-.200	-.175	-.048	.177	-.222	-.205
V84	.184	.071	.127	.234	-.210	.260	-.172	-.115	-.119	.203	-.258	-.256
V85	.166	.143	.200	.256	-.168	.307	-.219	-.124	-.145	.183	-.202	-.134
V86	-.065	.017	-.155	-.090	.194	-.207	.298	.219	.082	-.041	.300	.185
V87	.189	.132	.278	.193	-.097	.191	-.128	-.140	-.120	.188	-.198	-.173
V88	.172	.163	.132	.226	-.151	.172	-.232	-.163	-.098	.186	-.158	-.110
V89	-.090	-.133	-.204	-.242	.257	-.178	.268	.263	.071	-.079	.262	.310
V90	-.097	-.036	-.124	-.045	.095	-.077	.104	.040	.173	-.025	.175	.236
V91	-.012	-.044	-.199	-.194	.226	-.164	.204	.176	.079	-.075	.289	.243
V92	.087	.145	.253	.279	-.205	.227	-.178	-.124	-.114	.218	-.217	.153
V93	.215	.189	.216	.124	-.081	.188	-.163	-.155	-.037	.133	-.128	-.197
V94	-.115	-.058	-.070	-.104	.192	-.093	.252	.265	.103	-.172	.222	.158
V95	.189	.158	.166	.217	-.114	.173	-.148	-.141	-.110	.144	-.180	-.139
V96	.075	.136	.218	.188	-.086	.170	-.130	-.101	.009	.120	-.109	-.163
V97	.164	.153	.224	.256	-.140	.244	-.199	-.228	-.108	.138	-.277	-.144
V98	.240	.138	.240	.283	-.117	.214	-.217	-.270	-.077	.167	-.262	-.236
V99	-.064	-.040	-.065	-.014	.128	-.096	.174	.145	.084	-.039	.084	.116
V100	-.161	-.068	-.197	-.190	.250	-.105	.343	.256	.088	-.075	.296	.322
V101	-.152	-.106	-.186	-.228	.368	-.200	.366	.309	.114	-.124	.385	.332
V102	-.060	-.064	-.174	-.178	.262	-.139	.316	.182	.069	-.076	.331	.236
V103	-.058	-.079	-.182	-.160	.277	-.157	.276	.285	.164	-.087	.316	.279

	V25	V26	V27	V28	V29	V30	V31	V32	V33	V34	V35	V36
V25	1.000											
V26	-.032	1.000										
V27	.169	-.122	1.000									
V28	-.050	.133	-.238	1.000								
V29	-.027	.053	.064	.041	1.000							
V30	.106	-.153	.245	-.216	.020	1.000						
V31	-.030	.072	-.075	.101	.153	-.002	1.000					
V32	.177	-.040	.293	-.176	-.033	.246	.033	1.000				
V33	-.069	.062	-.202	.272	.111	-.186	.120	-.303	1.000			
V34	.181	-.024	.371	-.261	-.003	.200	-.104	.296	-.298	1.000		
V35	.183	-.065	.203	-.098	-.032	.102	-.177	.190	-.174	.352	1.000	
V36	-.085	.169	-.190	.242	.103	-.248	.086	-.265	.296	-.208	-.098	1.000
V37	-.086	.141	-.190	.325	.069	-.178	.054	-.247	.425	-.327	-.078	.331
V38	-.073	.167	-.075	.256	.111	-.108	.206	-.110	.332	-.204	-.180	.194
V39	.102	.027	.104	-.129	-.085	.225	-.044	.186	-.167	.222	.169	-.105
V40	.204	-.050	.275	-.222	-.057	.226	-.065	.354	-.214	.360	.242	-.153
V41	.059	.131	.143	.276	.140	-.146	.192	-.195	.247	-.220	-.080	.336
V42	.067	-.143	.269	-.160	.073	.188	-.041	.268	-.276	.261	.131	-.233
V43	.145	-.094	.288	-.159	.003	.232	-.044	.344	-.251	.381	.277	-.230
V44	-.110	.082	-.174	.340	.111	-.123	.116	-.115	.330	-.237	-.145	.298
V45	.119	-.018	.378	-.217	.066	.244	-.042	.236	-.381	.370	.247	-.146
V46	.164	.010	.430	-.227	.071	.259	-.068	.372	-.261	.274	.222	-.248
V47	.111	-.032	.247	-.264	.058	.200	-.093	.297	-.308	.399	.292	-.164
V48	-.072	.134	-.149	.160	.154	-.121	.245	-.169	.271	-.135	-.092	.202
V49	.184	-.064	.242	-.171	-.041	.162	-.105	.254	-.188	.305	.241	-.199
V50	-.114	.090	-.144	.353	.092	-.154	.104	-.167	.301	-.188	-.145	.207
V51	.064	-.125	.364	-.159	.050	.234	.016	.273	-.236	.301	.204	-.276
V52	-.114	.217	-.104	.273	.089	-.151	.098	-.131	.294	-.178	-.066	.107
V53	-.078	.145	-.143	.213	.202	-.180	.163	-.193	.417	-.246	-.103	.312
V54	.150	-.143	.339	-.287	.005	.214	-.074	.319	.226	.306	.206	-.228

	V25	V26	V27	V28	V29	V30	V31	V32	V33	V34	V35	V36
V55	-.176	.183	-.239	.264	.035	-.134	.117	-.236	.253	-.235	-.198	.324
V56	-.085	.132	-.205	.339	.088	-.236	.161	-.189	.591	-.252	-.121	.290
V57	.166	-.059	.228	-.239	-.020	.186	-.116	.196	-.128	.303	.190	-.189
V58	-.079	.087	-.071	.178	.131	-.087	.082	-.077	.219	-.083	-.033	.140
V59	-.068	.095	-.156	.269	.082	-.088	.098	-.107	.314	-.182	-.175	.137
V60	.154	-.089	.283	-.228	-.047	.135	-.104	.251	-.217	.380	.295	-.177
V61	-.083	.071	-.147	.257	.113	-.144	.142	-.207	.360	-.205	-.089	.186
V62	-.063	.071	-.180	.228	.117	-.046	.258	-.171	.351	-.284	-.164	.223
V63	.074	-.026	.271	-.158	-.062	.218	-.027	.273	-.283	.305	.159	-.132
V64	.140	.024	.144	-.173	-.079	.159	-.091	.210	-.227	.242	.103	-.218
V65	-.072	-.012	-.158	.143	.129	-.098	.014	-.149	.252	-.165	-.140	.134
V66	-.122	.069	-.190	.167	.047	-.206	.157	-.123	.192	-.166	-.127	.356
V67	.103	-.080	.247	-.289	-.025	.214	-.152	.300	-.636	.311	.224	-.235
V68	.109	-.012	.159	-.172	-.051	.140	-.108	.178	-.207	.267	.177	-.108
V69	.201	.006	.215	-.136	-.029	.041	-.126	.179	-.237	.294	.277	-.101
V70	-.088	.132	-.200	.257	.090	-.257	.226	-.231	.369	-.268	-.186	.304
V71	-.103	.156	-.183	.250	.065	-.246	.122	-.233	.367	-.260	-.161	.226
V72	.083	-.061	.283	-.226	-.050	.309	-.105	.303	-.365	.314	.252	-.232
V73	-.085	.127	-.233	.173	.164	-.111	.182	-.229	.336	-.261	-.177	.180
V74	.054	-.005	.055	-.084	.042	.058	.068	.143	-.001	.091	.027	-.056
V75	-.096	.048	-.114	.168	.040	-.068	.119	-.117	.219	-.200	-.190	.091
V76	.059	.039	.199	-.168	.033	.210	-.114	.220	-.376	.240	.203	-.111
V77	-.030	.093	-.241	.316	.130	-.169	.251	-.182	.423	-.346	-.268	.281
V78	-.071	.077	-.153	.297	.157	-.129	.129	-.163	.511	-.293	-.154	.299
V79	-.082	.061	-.165	.346	.200	-.176	.154	-.219	.555	-.191	-.123	.241
V80	-.088	.060	-.164	.270	.126	-.112	.206	-.158	.512	-.231	-.260	.272
V81	-.073	.022	-.232	.278	.078	-.188	.179	-.211	.458	-.242	-.158	.185
V82	.184	.003	.201	-.156	-.053	.191	-.078	.289	-.234	.268	.091	-.193
V83	.237	.027	.273	-.183	.014	.149	-.072	.209	-.220	.328	.243	-.120
V84	.175	-.057	.280	-.244	-.030	.140	-.002	.305	-.280	.306	.226	-.125

	V25	V26	V27	V28	V29	V30	V31	V32	V33	V34	V35	V36
V85	.169	-.045	.274	-.199	-.030	.161	-.106	.262	-.235	.262	.211	-.181
V86	-.034	.073	-.077	.158	.125	-.025	.348	-.105	.330	-.192	-.161	.152
V87	.127	-.032	.256	-.200	-.061	.141	-.069	.164	-.153	.324	.181	-.145
V88	.130	-.071	.229	-.143	-.050	.130	-.064	.242	-.170	.250	.191	-.133
V89	-.082	.107	-.177	.192	.152	-.094	.215	-.172	.341	-.250	-.188	.198
V90	-.044	.015	-.076	.095	-.010	-.046	.049	-.075	.235	-.046	-.083	.139
V91	-.043	.027	-.113	.179	.217	-.081	.188	-.167	.294	-.186	-.134	.094
V92	.091	-.079	.216	-.139	-.027	.170	-.050	.276	-.265	.302	.200	-.154
V93	.196	-.088	.265	-.152	-.027	.127	-.122	.186	-.146	.321	.186	-.163
V94	-.099	.091	-.210	.207	.030	-.144	.127	-.178	.254	-.195	-.130	.283
V95	.176	-.076	.158	-.147	-.064	.175	-.063	.231	-.174	.289	.165	-.120
V96	.106	-.011	.070	-.082	-.014	.059	-.009	.099	-.169	.136	.181	-.051
V97	.041	.007	.280	-.192	.020	.200	-.134	.234	-.273	.290	.211	-.194
V98	.154	-.084	.321	-.243	.043	.209	-.117	.352	-.349	.330	.250	-.187
V99	-.046	.095	-.035	.077	.050	-.004	.094	-.024	.130	-.033	-.001	.169
V100	-.010	.060	-.105	.175	.075	-.085	.220	-.139	.350	-.164	-.124	.250
V101	-.076	.106	-.234	.305	.106	-.173	.200	-.191	.458	-.346	-.213	.296
V102	-.053	.150	-.146	.227	.159	-.126	.241	-.114	.359	-.200	-.131	.157
V103	-.066	.146	-.184	.243	.072	-.197	.165	-.154	.344	-.190	-.120	.229

	V37	V38	V39	V40	V41	V42	V43	V44	V45	V46	V47	V48
V37	1.000											
V38	.313	1.000										
V39	-.080	-.167	1.000									
V40	-.177	-.168	.332	1.000								
V41	.275	.241	-.175	-.177	1.000							
V42	-.237	-.105	.108	.231	-.118	1.000						
V43	-.226	-.166	.230	.346	-.236	.279	1.000					
V44	.294	.223	-.050	-.198	.305	-.249	-.129	1.000				
V45	-.322	-.192	.199	.320	-.190	.322	.371	-.191	1.000			
V46	-.227	-.113	.168	.333	-.169	.396	.319	-.242	.400	1.000		
V47	-.214	-.227	.271	.348	-.207	.225	.344	-.226	.396	.373	1.000	
V48	.221	.165	-.075	-.215	.284	-.125	-.191	.224	-.163	-.142	-.215	1.000
V49	-.181	-.157	.149	.264	-.214	.157	.370	-.198	.261	.237	.233	-.207
V50	.260	.287	-.157	-.153	.215	-.235	-.193	.329	-.221	-.173	-.227	.189
V51	-.271	-.115	.188	.267	-.148	.291	.295	-.205	.355	.421	.296	-.137
V52	.317	.202	-.117	-.147	.201	-.211	-.183	.222	-.172	-.104	-.205	.235
V53	.369	.380	-.156	-.231	.256	-.192	-.250	.293	-.246	-.188	-.191	.292
V54	-.165	-.124	.156	.325	-.236	.366	.364	-.309	.287	.413	.346	-.156
V55	.302	.230	-.139	-.208	.294	-.219	-.250	.278	-.200	-.214	-.198	.217
V56	.413	.287	-.067	-.196	.297	-.225	-.204	.346	-.274	-.248	-.242	.233
V57	-.179	-.139	.155	.210	-.205	.144	.302	-.108	.263	.155	.261	-.115
V58	.155	.147	-.052	-.154	.158	-.072	-.138	.216	-.132	-.104	-.044	.195
V59	.285	.264	-.121	-.222	.232	-.168	-.228	.260	-.344	-.196	-.210	.191
V60	-.191	-.172	.164	.304	-.239	.231	.427	-.243	.348	.319	.271	-.141
V61	.308	.345	-.138	-.157	.220	-.185	-.272	.294	-.261	-.233	-.201	.316
V62	.292	.280	-.105	-.196	.329	-.154	-.229	.312	-.204	-.248	-.249	.301
V63	-.221	-.092	.109	.251	-.150	.269	.265	-.162	.341	.243	.222	-.068
V64	-.227	-.103	.113	.096	-.160	.204	.198	-.201	.199	.224	.206	-.130
V65	.246	.273	-.178	-.168	.172	-.106	-.163	.238	-.213	-.223	-.169	.222
V66	.231	.153	-.056	-.149	.221	-.085	-.161	.265	-.177	-.189	-.160	.209

	V37	V38	V39	V40	V41	V42	V43	V44	V45	V46	V47	V48
V67	-.370	-.266	.167	.252	-.212	.346	.337	-.255	.423	.370	.336	-.218
V68	-.093	-.126	.133	.180	-.075	.204	.319	-.048	.248	.168	.112	-.121
V69	-.129	-.172	.174	.220	-.157	.178	.306	-.191	.280	.234	.278	-.150
V70	.322	.289	-.177	-.234	.341	-.220	-.282	.279	-.285	-.320	-.366	.341
V71	.291	.275	-.140	-.187	.319	-.206	-.303	.282	-.295	-.220	-.262	.265
V72	-.224	-.179	.166	.250	-.186	.299	.300	-.224	.338	.278	.270	-.188
V73	.284	.357	-.141	-.260	.257	-.135	-.258	.254	-.186	-.112	-.233	.208
V74	-.093	.021	.090	.158	-.084	.086	.181	.024	.220	.096	.235	-.046
V75	.195	.471	-.136	-.207	.150	-.069	-.112	.157	-.148	-.104	-.132	.176
V76	-.226	-.088	.060	.173	-.170	.216	.205	-.222	.330	.262	.284	-.123
V77	.370	.346	-.094	-.195	.348	-.220	-.295	.339	-.287	-.271	-.385	.280
V78	.392	.403	-.179	-.152	.318	-.170	-.232	.317	-.254	-.195	-.236	.238
V79	.327	.345	-.137	-.242	.198	-.135	-.262	.270	-.296	-.249	-.238	.272
V80	.334	.482	-.147	-.222	.228	-.209	-.249	.295	-.260	-.200	-.232	.263
V81	.270	.316	-.106	-.253	.259	-.151	-.212	.274	-.280	-.214	-.176	.207
V82	-.207	-.080	.190	.300	-.147	.190	.288	-.138	.258	.232	.341	-.184
V83	-.151	-.211	.165	.335	-.153	.135	.303	-.110	.346	.241	.263	-.104
V84	-.218	-.291	.143	.291	-.164	.269	.273	-.212	.338	.260	.258	-.141
V85	-.191	-.118	.135	.308	-.242	.198	.166	-.205	.321	.277	.305	-.254
V86	.228	.338	-.075	-.139	.206	-.114	-.154	.223	-.128	-.165	-.157	.299
V87	-.186	-.070	.130	.225	-.217	.146	.265	-.197	.292	.252	.278	-.169
V88	-.133	-.101	.234	.271	-.182	.168	.308	-.082	.255	.233	.266	-.136
V89	.301	.214	-.132	-.230	.244	-.123	-.226	.275	-.198	-.144	-.238	.241
V90	.115	.097	-.074	-.100	.120	-.062	-.071	.142	-.156	-.053	-.153	.096
V91	.190	.275	-.230	-.315	.235	-.116	-.129	.195	-.206	-.142	-.215	.249
V92	-.238	-.127	.254	.294	-.176	.238	.306	-.155	.331	.237	.331	-.196
V93	-.122	-.094	.236	.279	-.199	.125	.327	-.164	.308	.261	.215	-.153
V94	.269	.258	-.150	-.183	.277	-.164	-.261	.225	-.195	-.115	-.210	.233
V95	-.175	-.087	.157	.289	-.147	.119	.273	-.130	.295	.266	.279	-.185
V96	-.144	-.079	.197	.195	-.099	.097	.218	-.063	.252	.166	.223	-.107

	V37	V38	V39	V40	V41	V42	V43	V44	V45	V46	V47	V48
V97	-.240	-.144	.185	.238	-.226	.247	.268	-.138	.333	.404	.390	-.192
V98	-.252	-.207	.173	.304	-.227	.283	.307	-.235	.374	.380	.310	-.238
V99	.162	.185	.000	-.095	.102	-.022	-.066	.146	-.055	.002	-.121	.169
V100	.291	.256	-.176	-.132	.229	-.132	-.198	.259	-.145	-.087	-.240	.270
V101	.358	.330	-.125	-.218	.294	-.180	-.338	.298	-.245	-.198	-.310	.246
V102	.252	.311	-.126	-.183	.244	-.059	-.147	.250	-.145	-.159	-.181	.313
V103	.298	.323	-.107	-.218	.279	-.201	-.266	.272	-.218	-.210	-.244	.176

	V49	V50	V51	V52	V53	V54	V55	V56	V57	V58	V59	V60
V49	1.000											
V50	-.173	1.000										
V51	.316	-.122	1.000									
V52	-.026	.251	-.190	1.000								
V53	-.161	.288	-.216	.312	1.000							
V54	.349	-.266	.357	-.206	-.193	1.000						
V55	-.203	.297	-.198	.248	.303	-.319	1.000					
V56	-.144	.333	-.221	.378	.430	-.275	.335	1.000				
V57	.270	-.168	.195	-.103	-.169	.221	-.207	-.207	1.000			
V58	-.063	.128	-.081	.233	.227	-.133	.184	.283	-.005	1.000		
V59	-.118	.245	-.113	.256	.287	-.224	.261	.415	-.118	.399	1.000	
V60	.448	-.185	.302	-.156	-.209	.396	-.199	-.233	.349	-.070	-.229	1.000
V61	-.194	.281	-.110	.309	.363	-.225	.320	.406	-.117	.202	.369	-.174
V62	-.184	.293	-.125	.226	.296	-.283	.353	.403	-.187	.181	.331	-.178
V63	.314	-.164	.274	-.135	-.197	.334	-.173	-.209	.123	-.065	-.120	.299
V64	.313	-.183	.239	-.056	-.176	.284	-.248	-.232	.157	-.035	-.077	.242
V65	-.173	.295	-.189	.118	.287	-.165	.175	.234	-.148	.141	.245	-.147
V66	-.237	.175	-.179	.134	.181	-.173	.255	.277	-.130	.222	.172	-.186
V67	.334	-.234	.325	-.268	-.365	.389	-.274	-.493	.228	-.180	-.315	.289
V68	.254	-.089	.192	-.115	-.207	.230	-.070	-.133	.238	-.103	-.104	.337
V69	.286	-.140	.245	-.094	-.167	.273	-.166	-.091	.305	-.058	-.134	.338
V70	-.355	.249	-.306	.211	.348	-.265	.320	.344	-.243	.220	.250	-.282
V71	-.231	.203	-.278	.277	.331	-.257	.283	.358	-.160	.174	.213	-.261
V72	.282	-.174	.328	-.236	-.233	.379	-.271	-.231	.236	-.098	-.161	.316
V73	-.209	.230	-.234	.246	.373	-.181	.287	.368	-.193	.238	.246	-.275
V74	.066	-.035	.084	-.076	-.018	.146	-.120	.007	.137	.034	-.036	.103
V75	-.173	.208	-.147	.141	.229	-.029	.154	.204	-.255	.064	.173	-.207
V76	.153	-.184	.277	-.180	-.223	.228	-.140	-.262	.159	-.043	-.195	.187
V77	-.166	.333	-.210	.251	.369	-.224	.314	.420	-.199	.176	.307	-.237
V78	-.204	.259	-.132	.253	.446	-.211	.324	.432	-.207	.196	.335	-.190

	V49	V50	V51	V52	V53	V54	V55	V56	V57	V58	V59	V60
V79	-.125	.214	-.104	.317	.427	-.177	.274	.530	-.147	.260	.382	-.201
V80	-.196	.316	-.215	.306	.472	-.184	.312	.476	-.192	.180	.370	-.225
V81	-.140	.206	-.135	.282	.343	-.207	.294	.441	-.190	.212	.305	-.180
V82	.213	-.125	.167	-.164	-.196	.282	-.190	-.176	.185	-.133	-.207	.234
V83	.295	-.151	.240	-.087	-.143	.238	-.110	-.181	.390	-.051	-.141	.331
V84	.308	-.239	.214	-.100	-.206	.308	-.179	-.278	.285	-.111	-.214	.290
V85	.249	-.092	.248	-.099	-.173	.309	-.225	-.270	.261	-.117	-.160	.234
V86	-.087	.122	-.061	.179	.251	-.133	.225	.300	-.132	.141	.293	-.171
V87	.184	-.151	.261	-.167	-.125	.261	-.210	-.162	.183	-.047	-.171	.246
V88	.256	-.130	.171	-.139	-.154	.283	-.209	-.173	.275	-.068	-.119	.232
V89	-.172	.135	-.237	.313	.340	-.251	.284	.356	-.153	.213	.336	-.267
V90	-.074	.147	-.050	.082	.104	-.096	.141	.200	-.048	.129	.141	-.011
V91	-.060	.179	-.038	.241	.310	-.130	.169	.299	-.118	.178	.314	-.183
V92	.246	-.144	.258	-.171	-.206	.299	-.186	-.166	.207	.012	-.172	.250
V93	.281	-.118	.212	-.035	-.175	.270	-.114	-.092	.258	-.036	-.085	.332
V94	-.155	.213	-.150	.186	.308	-.180	.271	.185	-.171	.150	.181	-.154
V95	.188	-.235	.172	-.160	-.124	.241	-.198	-.166	.236	-.037	-.140	.287
V96	.175	-.115	.154	-.064	-.141	.208	-.039	-.069	.158	-.012	-.166	.231
V97	.201	-.203	.313	-.212	-.194	.292	-.191	-.276	.167	-.086	-.219	.240
V98	.343	-.291	.342	-.204	-.216	.315	-.241	-.306	.280	-.124	-.255	.312
V99	-.094	.105	.012	.147	.215	-.168	.167	.141	-.066	.117	.076	-.028
V100	-.134	.211	-.086	.231	.285	-.144	.306	.318	-.107	.193	.272	-.087
V101	-.257	.008	-.145	.205	.338	-.248	.293	.414	-.235	.138	.341	-.274
V102	-.143	.213	-.117	.228	.410	-.137	.244	.365	-.148	.221	.311	-.110
V103	-.187	.274	-.179	.192	.310	-.209	.263	.393	-.143	.172	.307	-.178

	V61	V62	V63	V64	V65	V66	V67	V68	V69	V70	V71	V72
V61	1.000											
V62	.429	1.000										
V63	-.184	-.098	1.000									
V64	-.145	-.216	.318	1.000								
V65	.276	.245	-.086	-.076	1.000							
V66	.298	.226	-.110	-.275	.179	1.000						
V67	-.351	-.305	.348	.367	-.157	-.218	1.000					
V68	-.144	-.150	.272	.154	-.059	-.102	.279	1.000				
V69	-.090	-.160	.231	.222	-.128	-.131	.299	.423	1.000			
V70	.390	.307	-.256	-.290	.306	.414	-.361	-.133	-.222	1.000		
V71	.344	.266	-.261	-.327	.195	.435	-.326	-.154	-.223	.540	1.000	
V72	-.198	-.152	.508	.325	-.049	-.180	.452	.198	.254	-.316	-.347	1.000
V73	.303	.359	-.208	-.149	.243	.234	-.236	-.155	-.213	.446	.378	-.325
V74	-.054	-.050	.123	.093	-.038	-.058	.065	.150	.104	-.094	-.127	.128
V75	.236	.181	-.060	-.047	.376	.168	-.159	-.125	-.185	.298	.191	-.181
V76	-.188	-.197	.233	.204	-.117	-.112	.372	.176	.216	-.237	-.266	.282
V77	.328	.364	-.200	-.186	.214	.251	-.391	-.152	-.233	.432	.283	-.306
V78	.471	.397	-.190	-.262	.260	.269	-.464	-.147	-.213	.442	.436	-.346
V79	.400	.332	-.205	-.160	.165	.205	-.426	-.204	-.167	.357	.319	-.317
V80	.400	.341	-.175	-.146	.305	.223	-.401	-.130	-.176	.463	.347	-.260
V81	.345	.299	-.389	-.183	.170	.225	-.346	-.178	-.166	.325	.339	-.471
V82	-.192	-.181	.201	.172	-.169	-.171	.235	.181	.206	-.246	-.181	.263
V83	-.158	-.183	.263	.156	-.239	-.125	.247	.351	.362	-.257	-.152	.282
V84	-.211	-.218	.236	.191	-.192	-.070	.349	.228	.286	-.240	-.200	.265
V85	-.207	-.178	.210	.191	-.157	-.130	.326	.112	.197	-.221	-.218	.314
V86	.296	.369	-.037	-.158	.201	.140	-.292	-.063	-.144	.290	.246	-.143
V87	-.191	-.145	.190	.232	-.061	-.163	.211	.098	.184	-.224	-.260	.236
V88	-.182	-.179	.259	.197	-.117	-.188	.318	.169	.237	-.275	-.203	.280
V89	.358	.391	-.135	-.115	.138	.167	-.297	-.162	-.134	.332	.236	-.208
V90	.063	.120	-.049	-.105	.147	.115	-.143	-.023	-.113	.134	.144	-.057

142

	V61	V62	V63	V64	V65	V66	V67	V68	V69	V70	V71	V72
V91	.306	.277	-.114	-.089	.141	.082	-.243	-.158	-.074	.273	.237	-.155
V92	-.230	-.221	.285	.256	-.190	-.132	.311	.197	.253	-.316	-.257	.328
V93	-.156	-.224	.202	.145	-.155	-.112	.210	.251	.336	-.244	-.220	.216
V94	.225	.185	-.194	-.185	.131	.231	-.239	-.124	-.185	.342	.318	-.276
V95	-.141	-.172	.219	.147	-.139	-.153	.181	.164	.225	-.194	-.204	.177
V96	-.061	-.112	.176	.147	-.100	-.092	.157	.329	.248	-.169	-.155	.165
V97	-.237	-.237	.247	.179	-.211	-.162	.340	.153	.173	-.277	-.206	.228
V98	-.283	-.233	.269	.164	-.223	-.187	.429	.244	.295	-.351	-.289	.361
V99	.118	.132	-.048	-.121	.083	.176	-.109	-.054	-.082	.176	.184	-.099
V100	.334	.316	-.137	-.187	.172	.213	-.290	-.053	-.113	.347	.230	-.236
V101	.387	.381	-.193	-.180	.205	.237	-.376	-.157	-.208	.486	.281	-.248
V102	.341	.413	-.143	-.092	.242	.176	-.248	-.140	-.090	.338	.280	-.139
V103	.324	.257	-.166	-.133	.247	.189	-.305	-.072	-.026	.390	.271	-.156

	V73	V74	V75	V76	V77	V78	V79	V80	V81	V82	V83	V84
V73	1.000											
V74	-.029	1.000										
V75	.391	-.033	1.000									
V76	-.164	.106	-.014	1.000								
V77	.353	-.052	.238	-.345	1.000							
V78	.383	-.032	.255	-.260	.497	1.000						
V79	.351	.016	.212	-.221	.446	.507	1.000					
V80	.409	-.046	.404	-.245	.469	.531	.497	1.000				
V81	.385	-.022	.265	-.255	.361	.363	.506	.479	1.000			
V82	-.223	.168	-.119	.164	-.215	-.214	-.284	-.161	-.177	1.000		
V83	-.212	.221	-.310	.243	-.221	-.190	-.166	-.246	-.244	.295	1.000	
V84	-.231	.085	-.188	.241	-.301	-.268	-.265	-.284	-.272	.241	.378	1.000
V85	-.208	.223	-.086	.243	-.231	-.241	-.199	-.190	-.262	.328	.304	.396
V86	.334	.031	.293	-.097	.329	.338	.319	.351	.306	-.118	-.128	-.108
V87	-.154	.199	-.047	.216	-.222	-.137	-.175	-.174	-.227	.274	.210	.179
V88	-.216	.150	-.127	.166	-.288	-.227	-.193	-.182	-.255	.323	.290	.303
V89	.379	-.055	.158	-.209	.369	.332	.356	.299	.290	-.188	-.169	-.158
V90	.072	-.060	.057	-.121	.105	.160	.146	.132	.093	-.066	-.111	-.073
V91	.268	-.013	.201	-.151	.275	.288	.335	.316	.349	-.224	-.134	-.189
V92	-.234	.251	-.148	.268	-.221	-.222	-.241	-.205	-.194	.383	.357	.313
V93	-.175	.141	-.123	.217	-.148	-.193	-.123	-.142	-.173	.195	.380	.268
V94	.326	-.106	.088	-.205	.298	.314	.221	.308	.293	-.169	-.190	-.142
V95	-.140	.141	-.123	.157	-.196	-.102	-.144	-.107	-.171	.279	.276	.278
V96	-.129	.196	-.113	.171	-.201	-.129	-.156	-.173	-.107	.223	.263	.196
V97	-.152	.129	-.071	.272	-.353	-.218	-.202	-.221	-.239	.281	.259	.226
V98	-.224	.081	-.200	.299	-.384	-.298	-.251	-.270	-.343	.319	.362	.462
V99	.188	.000	.102	-.009	.102	.117	.171	.168	.157	-.108	-.008	-.032
V100	.251	-.040	.167	-.139	.334	.309	.293	.406	.292	-.171	-.145	-.137
V101	.381	-.061	.255	-.215	.532	.440	.433	.493	.369	-.266	-.268	-.213
V102	.357	.010	.258	-.130	.366	.368	.405	.390	.306	-.165	-.152	-.151
V103	.278	-.092	.230	-.122	.371	.301	.285	.436	.300	-.178	-.194	-.206

	V85	V86	V87	V88	V89	V90	V91	V92	V93	V94	V95	V96
V85	1.000											
V86	-.212	1.000										
V87	.304	-.072	1.000									
V88	.407	-.141	.290	1.000								
V89	-.203	.369	-.212	-.162	1.000							
V90	-.051	.124	-.055	-.047	.124	1.000						
V91	-.170	.336	-.183	-.216	.388	.167	1.000					
V92	.294	-.084	.277	.369	-.220	-.049	-.252	1.000				
V93	.253	-.143	.290	.279	-.196	-.147	-.204	.288	1.000			
V94	-.217	.251	-.135	-.185	.252	.015	.166	-.190	-.185	1.000		
V95	.255	-.118	.286	.289	-.087	-.101	-.144	.316	.231	-.124	1.000	
V96	.158	-.097	.171	.184	-.125	-.057	-.149	.323	.318	-.148	.233	1.000
V97	.270	-.216	.283	.254	-.225	-.091	-.181	.234	.186	-.210	.299	.173
V98	.320	-.226	.240	.361	-.259	-.050	-.282	.266	.310	-.246	.288	.121
V99	-.136	.181	.006	-.057	.206	.083	.159	.007	-.054	.194	-.005	-.044
V100	-.112	.303	-.134	-.112	.344	.164	.253	-.156	-.168	.280	-.154	-.060
V101	-.221	.318	-.268	-.266	.322	.136	.265	-.270	-.267	.340	-.205	-.179
V102	-.164	.373	-.148	-.192	.360	.089	.462	-.235	-.164	.189	-.096	-.146
V103	-.177	.257	-.209	-.175	.261	.092	.274	-.217	-.197	.241	-.205	-.131

	V97	V98	V99	V100	V101	V102	V103
V97	1.000						
V98	.435	1.000					
V99	-.026	-.010	1.000				
V100	-.240	-.216	.259	1.000			
V101	-.337	-.309	.143	.425	1.000		
V102	-.195	-.212	.184	.309	.457	1.000	
V103	-.257	-.328	.077	.341	.524	.394	1.000

Appendix H

Table of Total Variance Explained

146

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
48	.674	.655	79.748			
49	.647	.628	80.376			
50	.639	.621	80.996			
51	.633	.614	81.611			
52	.605	.588	82.198			
53	.600	.582	82.781			
54	.588	.571	83.352			
55	.569	.552	83.904			
56	.561	.545	84.449			
57	.555	.539	84.987			
58	.542	.526	85.514			
59	.530	.514	86.028			
60	.519	.504	86.532			
61	.502	.487	87.019			
62	.486	.471	87.490			
63	.477	.463	87.954			
64	.475	.461	88.414			
65	.460	.446	88.861			
66	.457	.444	89.304			
67	.449	.436	89.740			
68	.438	.426	90.166			
69	.417	.405	90.571			
70	.412	.400	90.970			
71	.399	.388	91.358			
72	.396	.384	91.742			
73	.394	.383	92.125			
74	.388	.377	92.501			
75	.381	.370	92.872			
76	.371	.360	93.232			
77	.363	.353	93.585			
78	.352	.342	93.927			
79	.347	.337	94.263			
80	.337	.327	94.590			
81	.330	.320	94.911			
82	.322	.312	95.223			
83	.318	.309	95.532			
84	.315	.305	95.837			
85	.300	.291	96.128			
86	.291	.282	96.410			
87	.283	.275	96.685			
88	.280	.272	96.957			
89	.263	.255	97.212			
90	.257	.249	97.461			
91	.252	.245	97.706			
92	.237	.230	97.937			
93	.232	.226	98.163			
94	.227	.220	98.383			

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	23.032	22.361	22.361	23.032	22.361	22.361
2	5.557	5.395	27.756	5.557	5.395	27.756
3	2.537	2.463	30.219			
4	2.287	2.220	32.439			
5	2.021	1.962	34.401			
6	1.929	1.873	36.274			
7	1.836	1.783	38.057			
8	1.769	1.718	39.775			
9	1.701	1.651	41.426			
10	1.630	1.583	43.009			
11	1.531	1.486	44.494			
12	1.490	1.447	45.941			
13	1.377	1.337	47.278			
14	1.365	1.325	48.603			
15	1.322	1.283	49.886			
16	1.314	1.276	51.162			
17	1.259	1.222	52.384			
18	1.255	1.219	53.603			
19	1.238	1.202	54.805			
20	1.166	1.132	55.937			
21	1.135	1.102	57.039			
22	1.094	1.062	58.101			
23	1.088	1.056	59.158			
24	1.076	1.045	60.202			
25	1.041	1.011	61.213			
26	1.015	.985	62.198			
27	1.008	.979	63.177			
28	.981	.953	64.129			
29	.963	.935	65.065			
30	.947	.919	65.984			
31	.926	.899	66.882			
32	.896	.870	67.752			
33	.888	.863	68.614			
34	.878	.852	69.467			
35	.859	.834	70.301			
36	.835	.811	71.112			
37	.823	.799	71.911			
38	.804	.781	72.692			
39	.798	.775	73.467			
40	.781	.758	74.225			
41	.774	.751	74.976			
42	.737	.716	75.692			
43	.722	.701	76.393			
44	.713	.693	77.086			
45	.700	.680	77.766			
46	.691	.671	78.437			
47	.676	.656	79.093			

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
95	.219	.213	98.596			
96	.212	.206	98.801			
97	.204	.198	98.999			
98	.199	.193	99.192			
99	.191	.185	99.377			
100	.182	.176	99.554			
101	.170	.165	99.718			
102	.150	.146	99.864			
103	.140	.136	100.000			

Extraction Method: Principal Component Analysis.

Appendix I

Descriptive Information for PEAS Items

Descriptives

Descriptive Statistics

	N	Mean	Std.	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std Error
V1 I am glad I am me	520	5.03	1.04	-1.333	107	2.377	214
V2 I dont belong with my significant others	517	1.68	1.63	1.073	107	1.020	214
V3 I am able to grow at my own pace	518	4.63	1.31	-.783	.107	574	214
V4 I take good care of myself	520	4.43	1.24	-.688	.107	429	214
V5 I am sorry I was born	517	.46	1.03	3.310	.107	14.932	214
V6 What I need is not important to me	516	1.80	1.67	.760	108	-.254	215
V7 I willingly accept love and care from others	520	4.83	1.31	-1.107	.107	960	214
V8 I am not able to feel all of my feelings	520	2.13	1.74	.530	107	-.463	214
V9 I am glad I am alive	520	5.42	1.02	-1.915	107	5.213	214
V10 I use all my senses when I explore	519	4.56	1.25	-.494	.107	302	214
V11 I have many interests	518	5.01	1.19	-.984	107	889	214
V12 I am able to experiment with new ideas and things	519	4.59	1.27	-.785	107	725	214
V13 I am not able to accept myself when I am quiet	518	1.74	1.72	.925	.107	159	214
V14 I dont practice things as much as I need to	518	3.35	1.44	-.293	107	-143	214
V15 I am afraid to initiate relationships and activities	520	2.46	1.70	237	107	-790	214
V16 I am not sure about what I really know	519	2.35	1.56	246	.107	-648	214
V17 I like to grow	517	5.18	1.16	-1.447	.107	3.134	214
V18 I am not able to explore things or ideas	517	1.64	1.59	1.047	107	836	214
V19 I love and accept myself when I am active	520	5.07	1.15	-1.104	.107	2.079	214
V20 I like to learn	519	5.13	1.13	-1.526	.107	2.335	214
V21 When I express anger I do not hurt myself	519	4.55	1.73	-1.024	107	232	214
V22 I cannot be separate from others and still love them	520	1.40	1.76	1.233	.107	609	214
V23 I know what I need	519	4.41	1.34	-.809	107	523	214
V24 I ask for help when I need it	520	4.03	1.40	-.293	107	-240	214
V25 I dont use feelings to help think clearly about what I do	517	2.58	1.64	.314	107	-259	214
V26 It is okay for me to be angry	520	4.12	1.58	-654	107	-105	214
V27 I dont think for myself	519	1.18	1.47	1.591	107	2.504	214
V28 I say no when I need to say no	520	4.32	1.51	-.791	107	-032	214
V29 I think and feel for others	519	3.94	1.78	-.592	107	-542	214
V30 When I express anger I hurt others	520	1.62	1.62	.876	.107	-022	214

Descriptive Statistics

	N Statistic	Mean Statistic	Std. Statistic	Skewness Statistic	Skewness Std. Error	Kurtosis Statistic	Kurtosis Std. Error
V31 I stretch myself and test my limits	520	3.82	1.43	-.495	.107	-.040	214
V32 I am not able to think and feel at the same time	518	1.49	1.54	1.121	.107	.821	214
V33 I love who I am	519	4.61	1.38	-.939	.107	.511	214
V34 I dont know how to learn ways to be effective	514	2.26	1.64	.487	.108	-.267	215
V35 I dont try out different roles	518	2.66	1.68	.173	.107	-.663	214
V36 I know the difference between reality and fantasy	518	5.38	1.13	-2.071	.107	5.222	214
V37 I can accept all of my feelings	519	4.47	1.40	-.953	.107	.498	214
V38 I continue to explore who I am	518	4.58	1.37	-.945	.107	701	214
V39 I make assumptions about other people	518	2.68	1.46	.011	107	-.467	214
V40 I am not able to be both powerful and ask for help	517	2.48	1.63	.352	.107	-.429	214
V41 I accept responsibility for the results of my behaviour	519	4.91	1.19	-1.300	.107	1.887	214
V42 If I disagree with others, I feel bad about myself	519	1.99	1.57	.505	.107	-.406	214
V43 I do not know good rules to help my live with others	518	1.44	1.65	1.358	.107	1.381	214
V44 I know when I should disagree and do	517	4.25	1.45	-.684	.107	.123	214
V45 I stay in distress instead of getting help	518	2.25	1.69	.376	.107	-.601	214
V46 I let other people do my thinking for me	519	1.22	1.42	1.479	.107	2.281	214
V47 I have trouble finding workable ways of doing things	518	2.02	1.53	.671	.107	.418	214
V48 I can trust my intuition to help me decide what to do	518	4.28	1.29	-.876	.107	.584	214
V49 I dont learn from my mistakes	518	1.40	1.59	1.482	.107	1.698	214
V50 I think before I say yes or no	518	4.37	1.34	-.697	.107	.223	214
V51 I have trouble thinking for myself	519	1.48	1.67	1.263	.107	.970	214
V52 I feel lovable even when I differ from others	517	3.91	1.58	-.498	.107	-.143	214
V53 I love growing with other people	517	4.55	1.37	-.940	.107	835	214
V54 I dont know how to disagree	519	1.56	1.59	.938	.107	031	214
V55 I can love someone and disagree with them	518	4.97	1.35	-1.611	.107	2.757	214
V56 I am a good friend to myself	519	4.56	1.39	-.802	.107	.371	214
V57 I dont examine my involvement in my intersests	516	2.37	1.78	.519	.108	-.396	215

Descriptive Statistics

	N	Mean	Std.	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std Error
V58 I am dependent when I need to be	518	4.43	1.49	-.880	.107	.230	214
V59 I ask for support when I need it	519	4.08	1.52	-.507	.107	-.544	214
V60 I dont learn new roles when I need them	519	2.01	1.66	.927	.107	.757	214
V61 I grow in my maleness/femaleness	517	4.72	1.27	-.775	.107	.493	214
V62 I learn to use old skills in new ways	519	4.49	1.23	-.623	.107	.708	214
V63 I dont look forward to the next stage of my life	518	1.76	1.83	.882	.107	-.196	214
V64 I am confused about the diff between sex & nurturing	516	1.22	1.65	1.579	.108	1.997	215
V65 I examinine how I participate in relationships	519	4.21	1.52	-.643	.107	-.189	214
V66 I get my sexual needs met in a responsible way	519	4.92	1.51	-1.405	.107	1.947	214
V67 I dont love myself very much	518	1.34	1.61	1.233	.107	.811	214
V68 I am not active in social causes even if I value them	518	2.63	1.75	.103	.107	-.808	214
V69 I dont evaluate the social causes I support	519	2.11	1.80	.727	.107	-.023	214
V70 I pursue my own interests in a responsible way	519	4.81	1.19	-1.236	.107	1.619	214
V71 I get my nurturing needs met in a responsible way	519	4.70	1.42	-1.343	.107	1.639	214
V72 I dread the next stage of my life	519	1.45	1.72	1.069	.107	.190	214
V73 I welcomeopportunities to create new dreams	518	4.84	1.32	-1.307	.107	1.939	214
V74 I have difficulty grieving when people leave my life	518	2.60	1.96	.216	.107	-1.089	214
V75 I periodically examine who I am	517	3.86	1.57	-.518	.107	-.178	214
V76 I feel incompetent	519	1.70	1.66	.899	.107	.210	214
V77 I am productive	518	4.62	1.18	-.983	.107	1.439	214
V78 I am maturing in my ability to love myself & others	519	4.74	1.27	-1.118	.107	1.434	214
V79 I am joyful	518	4.47	1.29	-.795	.107	.358	214
V80 I have a life-long commitment to personal growth	519	4.71	1.34	-.929	.107	.604	214
V81 I look forward to the next part of my journey	518	4.68	1.41	-.992	.107	.503	214
V82 I am unable to develop relations with new people	519	1.94	1.76	.666	.107	-.532	214
V83 I dont examine my commitment to what I do	519	2.01	1.61	.620	.107	-.034	214
V84 My needs are not important	518	1.68	1.74	.874	.107	-.180	214

Descriptive Statistics

	N	Mean	Std.	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
V85 I cannot be uniquely myself	519	1.73	1.78	.967	.107	.210	214
V86 I am creative	518	4.34	1.48	-.755	.107	423	214
V87 I have diff moving between in & inter dependence	519	2.41	1.78	.570	.107	-.137	214
V88 I dont honor the uniqueness of others	517	1.64	1.63	.969	.107	181	214
V89 I am able to take on new roles	519	4.33	1.35	-.624	.107	.177	214
V90 I am able to say goodbye to dreams	519	3.29	1.65	-.091	.107	-.628	214
V91 I continue to expand my commitments to mankind	519	3.87	1.47	-.201	.107	-.282	214
V92 I have trouble making my love extend to more people	518	2.19	1.70	.457	.107	-.509	214
V93 I dont fulfill my resp for contributions to my commitments	519	2.12	1.64	.690	.107	.337	214
V94 I am commited to my family	517	5.01	1.46	-1.584	.107	1.952	214
V95 I am unable to leave old roles when I need to	515	2.60	1.70	.311	.108	-.488	215
V96 I dont feel committed to my community	518	2.68	1.76	.129	.107	-.907	214
V97 I have difficulty making decisions	518	2.45	1.68	.262	.107	-.792	214
V98 I dont trust my inner wisdom	517	1.78	1.67	.789	.107	-.178	214
V99 My loveableness does not depend on my age	515	4.03	1.99	-.689	.108	-.607	215
V100 I am able to finish each part of my life journey	517	4.29	1.46	-.591	.107	.254	214
V101 I am committed to what I do	514	4.87	1.17	-1.097	.108	1.451	215
V102 I can expand my commitments to all creation	513	4.19	1.51	-.476	.108	-.071	215
V103 I keep my behavior consistent with who I am	513	4.59	1.25	-.885	.108	.818	215

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
FACTOR1	520	1.43	7.18	4.5179	.7822
FACTOR2	520	.00	5.80	1.8343	.9426
Valid N (listwise)	520				

Appendix J

Reliability Scales for Factors 1 and 2

Factor 1 Reliability

****** Method 1 (space saver) will be used for this analysis ******

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   (A L P H A)

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
V1	124.8551	441.4588	.5897	.9320
V100	125.5855	435.3762	.5031	.9330
V101	125.0080	435.7741	.6400	.9313
V102	125.6801	431.3753	.5509	.9324
V103	125.2918	438.9853	.5251	.9326
V11	124.8692	442.3196	.4861	.9330
V12	125.2797	442.2261	.4551	.9334
V17	124.7123	442.3545	.4991	.9329
V19	124.7907	440.2505	.5686	.9321
V23	125.4648	435.8783	.5446	.9323
V24	125.8531	437.3272	.4902	.9331
V33	125.2656	428.4374	.6799	.9306
V38	125.2716	434.8031	.5664	.9321
V53	125.3481	432.9935	.5848	.9318
V56	125.3099	428.9361	.6558	.9309
V59	125.7807	433.0345	.5242	.9328
V61	125.1469	436.2707	.5761	.9319
V62	125.3863	439.7456	.5332	.9325
V70	125.0644	439.7620	.5593	.9322
V73	124.9940	437.7399	.5467	.9323
V77	125.2475	437.2794	.6071	.9316
V78	125.1348	433.0645	.6495	.9311
V79	125.4125	432.1622	.6541	.9310
V80	125.1670	427.9015	.7063	.9302
V81	125.1911	431.7436	.5968	.9317
V86	125.5352	434.8622	.5057	.9330
V9	124.4688	444.0358	.5344	.9326
V91	126.0060	436.6109	.4821	.9333

Reliability Coefficients

N of Cases =   497.0   N of Items = 28

Alpha =   .9344

Factor 2 Reliability

****** Method 1 (space saver) will be used for this analysis ******

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   (A L P H A)

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
V16	34.2968	332.8359	.4435	.8956
V18	35.0239	330.9495	.4687	.8950
V27	35.4821	330.7212	.5168	.8937
V34	34.4263	324.4287	.5700	.8922
V40	34.1813	326.6757	.5249	.8934
V43	35.2410	324.2911	.5629	.8924
V45	34.4343	322.7172	.5770	.8919
V46	35.4462	330.2276	.5440	.8931
V47	34.6614	328.5518	.5436	.8930
V49	35.2649	328.8139	.5033	.8940
V51	35.2371	327.1393	.5217	.8935
V54	35.1056	325.5158	.5608	.8925
V60	34.6594	323.4865	.5701	.8922
V69	34.5817	326.9664	.4671	.8953
V72	35.2430	325.9967	.5106	.8939
V83	34.6733	326.5757	.5423	.8930
V84	34.9940	324.8283	.5210	.8936
V92	34.4861	327.5277	.4886	.8945
V93	34.5438	329.1588	.4772	.8948
V98	34.8865	323.1947	.5699	.8922

Reliability Coefficients

N of Cases =   502.0   .   N of Items = 20

Alpha =   .8983

Appendix K

Approval Letter From the Human Subjects
Institutional Review Board

158

Human Subjects Institutional Review Board   Kalamazoo, Michigan 49008-3899

WESTERN MICHIGAN UNIVERSITY

Date: 13 November 1996

To: Michael Bahr

From: Richard Wright, Chair

Re: HSIRB Project Number 96-11-17

This letter will serve as confirmation that your research project entitled "Educational Affirmations for Healthy Self-Esteem: An Exploratory Factor Analysis" has been approved under the exempt category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note that you must seek specific approval for any changes in this design. You must also seek reapproval if the project extends beyond the termination date. In addition if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: 11 November 1997

xc: Kaye Centers

BIBLIOGRAPHY

Achenbach, T. M. (1992). Parent-child relationships. In M. H. Bornstein & M. E. Lamb (Eds.), *Developmental psychology: An advanced text.* (pp. 629–676). Hillsdale, NJ: Lawrence Erlbaum Associates.

Altenberg, H. E. (1992). *Holistic medicine: A meeting of East and West.* New York: Japan Publications.

Alvy, K. T. (1994). *Parent training today.* Studio City, CA: Center for the Improvement of Child Caring.

Aronson, J., Blanton, H., & Cooper, J. (1995). From dissonance to disidentification: Selectivity in the self-affirmation process. *Journal of Personality and Social Psychology, 68*(6), 966–996.

Ary, D., Jacobs, L. C., & Razavieh, A. (1990). *Introduction to research in education* (4th ed.). Orlando, FL: Holt, Rinehart and Winston.

Baumeister, R. (Ed.). (1993). *Self-esteem: The puzzle of low self-regard.* New York: Plenum.

Baumeister, R. F., Smart, L., & Boden, J. M. (1996). Relation of threatened egotism to violence and aggression: The dark side of high self-esteem. *Psychological Review, 103*(1), 5–33.

Baumrind, D. (1972). From each according to her ability. *School Review, 80,* 161–197.

Baumrind, D. (1975). *Early socialization and the discipline controversy.* Morristown, NJ: General Learning Press.

Beck, A. T. (1967). *Depression: Clinical, experimental, and theoretical aspects.* New York: Harper & Row.

Bednar, R., Wells, G., & Peterson, S. (1989). *Self-esteem: Paradoxes and innovation in clinical theory and practice.* Washington DC: American Psychological Association.

Blanton, H., Cooper, J., Skurnik, I., & Aronson, J. (1997). When bad things happen to good feedback: Exacerbating the need for self-justification with self-affirmations. *Personality & Social Psychology Bulletin, 23*(7), 684–692.

160

Borg, W. R., & Gall, M. D. (1983). *Educational research: An introduction.* New York: Longman.

Bowen, M. (1978). *Family therapy in clinical practice.* New York: Aronson.

Branden, N. (1969). *The psychology of self-esteem.* New York: Bantam.

Bredehofft, D. J. (1990). An evaluation study of the self-esteem: A family affair program with high-risk abusive parents. *Transactional Analysis Journal, 20,* 111–117.

Bredehofft, D. J., & Hey, R. H. (1985). An evaluation study of self-esteem: A family affair. *Family Relations, 34,* 411–417.

Bronfenbrenner, U., & Mahoney, M. (Eds.). (1989). *Influences on human development.* Hinsdale, IL: Dryden Press.

Campbell, C. A. (1991). Group guidance for academically undermotivated children. *Elementary School Guidance and Counseling, 25*(4), 302–307.

Cash, T. F. (1997). *The body image workbook: An 8-step program for learning to like your looks.* Oakland, CA: New Harbinger.

Cashdan, S. (1988). *Object relations therapy: Using the relationship.* New York: Norton.

Centers, K., Jump, J., Bahr, M., & Clarke, J. (1993). Development of the educational affirmation scale. *We: A Newsletter for People Who Care About Self-Esteem, 13*(3). Minneapolis: Daisy Press.

Chakalis, E., & Lowe, G. (1992). Positive effects of subliminal stimulation on memory. *Perceptual and Motor Skills, 4,* 956–958.

Clarke, J. I. (1978/1998). *Self-esteem: A family affair.* Center City, MN: Hazelden.

Clarke, J. I. (1981). *Self-esteem: A family affair leader guide.* Minneapolis: Daisy Press.

Clarke, J. I. (1986a). Affirmations for self-esteem. *We: Newsletter for Nurturing Support Groups, 7*(2). Minneapolis: Daisy Press.

Clarke, J. I. (1986b). *Help! For parents of different ages.* Minneapolis: Daisy Press.

Clarke, J. I. (1996). Affirmation/recycling puzzle; affirmation history. *We: A Newsletter for People Who Care About Self-Esteem, 15*(5). Minneapolis: Daisy Press.

Clarke, J. I., & Dawson, C. (1989). *Growing up again: Parenting ourselves, parenting our children.* Center City, MN: Hazelden.

Clarke, J. I., & Gesme, C. (1988). *Affirmation ovals: 139 ways to give and get affirmations.* Minneapolis: Daisy Press.

Clarke, J. I., Gesme, C., London, M., & Brundage, D. (1993). *Help! For kids and parents about drugs.* Minneapolis: Daisy Press.

Cohen, R. J., Swerdlik, M. E., & Smith, D. K. (1992). *Psychological testing and assessment: An introduction to tests and measurement.* Mountain View, CA: Mayfield.

Coopersmith, S. (1967). *The antecedents of self-esteem.* San Francisco: Freeman.

Copeland, M. E. (1996). Alleviating symptoms of depression. In J. Lonsdale (Project Ed.), *The Hatherleigh Guide Series: Vol. 3. Hatherleigh guide to managing depression* (1st ed., pp. 243–263). New York: Hatherleigh Press.

Coue, E. (1922/1980). *Self mastery through conscious autosuggestion.* Boston: Allen & Unwin.

Coue, E. (1923). *How to practice suggestion and autosuggestion.* New York: American Library Service.

Davis, E. (1994). The unconscious power of affirmations—An hypnotherapist's perspective. *The Australian Journal of Clinical Hypnotherapy and Hypnosis, 15*(2), 53–65.

Denham, I. P. (1993). The power of the word. (Doctoral dissertation, The Union Institute, 1993). *Dissertation Abstracts International, 54*(9), 4913-B

Denzin, N. K., & Lincoln, Y. S. (Eds.). (1994). *Handbook of qualitative research.* Thousand Oaks, CA: Sage.

Downing, C. J. (1986). Affirmations: Steps to counter negative, self-fulfilling prophecies. *Elementary School Guidance & Counseling, 20*(3), 174–179.

Downing, J. (1988). Counseling interventions with depressed children. *Elementary School Guidance & Counseling, 22*(3), 231–240.

Dusay, J. M., & Dusay, K. M. (1989). Transactional analysis. In R. C. Corsini & D. Wedding (Eds.), *Current psychotherapies* (4th ed., pp. 405–453). Itasca, IL: Peacock Books.

Ellis, A. (1973). *Humanistic psychotherapy: The rational -emotive approach.* New York: Julian Press.

Epstein, S. (1985). The implications of cognitive-experiential self-theory for research in social psychology and personality. *Journal for the Theory of Social Behavior, 15,* 282–209.

Erikson, E. H. (1963). *Childhood and society*. New York: Norton.

Erikson, E. H. (1983). *The life cycle completed* New York: Norton.

Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.

Friedman, E. H. (1991). Bowen theory and therapy. In A. S. Gurman & D. P. Kniskern (Eds.), *Handbook of family therapy: Vol. 2* (pp. 134–170). New York: Brunner/Mazel.

Gordon, T. (1970). *Parent effectiveness training*. New York: Wyden.

Haines, P. E. (1997). Addiction recovery: Transcending the existential root of relapse. *The International Forum for Logotherapy, 20*, 37–45.

Holder, R. J. (1990). Human energy: A self-motivational technique for the third wave. *Organizational Development Journal, 8*(3), 26–31.

Hovestadt, A., & Fine, M. (1987). *Family of origin therapy*. Rockville, MD: Aspen.

Jackson, M. R. (1984). *Self-esteem and meaning: A life historical investigation.* Albany, NY: State University of New York Press.

James, W. (1890). *The principles of psychology*. Cambridge, MA: Harvard University Press.

Johnson, P. R., & Daumer, C. R. (1993). Intuitive development: Communication in the nineties. *Public Personnel Management, 22*(2), 257–268.

Jones, E. (1985). Anorexia nervosa, bulimia, and birth. *Birth Psychology Bulletin, 6*(1), 1–6.

Kaplan, R. M., & Saccuzzo, D. P. (1989). *Psychological testing: Principles, applications, and issues.* Pacific Grove, CA: Brooks/Cole.

Kaskutas, L. A. (1991). Predictors of self esteem among members of Women for Sobriety. *Addiction Research, 4*(3), 273–281.

Kegan, R. (1982). *The evolving self: Problem and process in human development.* Cambridge, MA: Harvard University Press.

Kerlinger, F. N. (1973). *Foundations of behavioral research* (4th ed.). New York: Holt, Rinehart and Winston.

Kim, J. O., & Mueller, C. W. (1978a). Introduction to factor analysis: What it is and how to do it. *Sage University Paper Series on Quantitative Applications in the Social Sciences, 07-013*. Newbury Park, CA: Sage.

Kim, J. O., & Mueller, C. W. (1978b). Factor analysis: Statistical methods and practical issues. *Sage University Paper Series on Quantitative Applications in the Social Sciences, 07-014.* Newbury Park, CA: Sage.

Kuechler, C. F., & Andrews, J. (1996). Providing a bridge between psychoeducational groups and social work. *Transactional Analysis Journal, 26(2),* 175–181.

L'Abate, L. (1990). *Building family competence: Primary and secondary prevention strategies.* Newbury Park, CA: Sage.

LaMascus, V. (1985). You can if you think you can: Using affirmations to build your students' self-confidence. *Perspectives for Teachers of the Hearing Impaired, 4(2),* 2–4.

Lamb, M. E., Ketterlinus, R. D., & Fracasso, M. P. (1992). Parent-child relationships. In M. H. Bornstein & M. E. Lamb (Eds.), *Developmental psychology: An advanced text* (pp. 465–518). Hillsdale, NJ: Lawrence Erlbaum Associates.

Levin, P. (1974). *Becoming the way we are: A transactional guide to personal development.* Berkeley, CA: Transactional Publications.

Mack, J. E., & Ablon, S. L. (Eds.). (1983). *The development and sustenance of self-esteem in childhood.* New York: International Universities Press.

McCaffrey, M. (1986). *Focus on success: How to use the power of self-image psychology* [Cassette recording]. Chicago: Nightingale-Conant.

Mecca, A. M., Smelser, N. J., & Vasconcellos, J. (Eds.). (1989). *The social importance of self-esteem.* Berkeley: University of California Press.

Medway, F. J. (1991). Measuring the effectiveness of parent education. In M. J. Fine (Ed.), *The second handbook on parent education: Contemporary perspectives* (pp. 237–255). San Diego, CA: Academic Press.

Meichenbaum, D. (1976). A cognitive-behavior modification approach to assessment. In M. Hersen & A. S. Bellack (Eds), *Behavioral assessment.* New York: Pergamon.

Meichenbaum D. H., & Turk, , D. (1982). Stress, coping and disease: A cognitive-behavioral perspective. In R. W. J. Neufeld (Ed.), *Psychological stress and psychopathology.* New York: McGraw-Hill.

Merenda, P. F. (1997). A guide to the proper use of factor analysis in the conduct and reporting of research: Pitfalls to avoid. *Measurement and Evaluation in Counseling and Development, 30,* 156–164.

Mitchell, C. E. (1991). The imperative or therapeutic literacy discriminating between new age and Christian based techniques in therapy: A subtle confrontation of basic beliefs. *Psychology, A Journal of Human Behavior, 28*(3–4), 17–21.

Morgaine, C. A. (1992). Alternative paradigms for helping families change themselves. *Family Relations, 41,* 12–17.

Mruk, C. (1995). *Self-esteem: Research, theory, and practice.* New York: Springer.

Mueller, C. M., & Dweck, C. S. (1998). Praise for intelligence can undermine children's motivation and performance. *Journal of Personality and Social Psychology, 75*(1), 33–52.

Munshi, J. (1990). *A method for constructing Likert scales.* [Online]. Available: Netscape Navigator: Alta Vista (search engine); "Likert" (search term); http://munshi.sonoma.edu/working/likert.html.

Newman, B., & Newman, P. (1987). *Development through life: A psychosocial approach* (4th ed.). Chicago: Dorsey.

Nichols, M. P., & Schwartz, R. C. (1998). *Family therapy: Concepts and methods* (4th ed.). Boston: Allyn and Bacon.

Norusis, M. J./SPSS Inc. (1990). *SPSS base system user's guide.* Chicago: SPSS.

O'Brien, E., & Epstein, S. (1988). *MSEI: The Multidimensional Self-Esteem Inventory.* Odessa, FL: Psychological Assessment Resources.

Paulhus, D. L. (1993). Bypassing the will: The automatization of affirmations. In D. M. Wegner & J. W. Pennebaker (Eds.), *Handbook of mental control* (pp. 573–587). Englewood Cliffs, NJ: Prentice Hall.

Pope, A., McHale, S., & Craighead, E. (1988). *Self-esteem enhancement with children and adolescents.* New York: Pergamon Press.

Project Charlie: Chemical Abuse Resolution Lines in Education (Rev. ed.). (1987). Edine: MN: Storefront/Youth Action.

Rosenberg, M. (1965). *Society and adolescent self-image.* Princeton, NJ: Princeton University Press.

Russell, T. G., Rowe, W., & Smouse, A. D. (1991) Subliminal self-help tapes and academic achievement: An evaluation. *Journal of Counseling & Development, 69*(4), 359–362.

Salka, S. (1997). Enlisting the unconscious as an ally in grief therapy: The creative use of affirmations, metaphors, and guided visualizations. *The Hospice Journal, 19*(3), 17–31.

Samenow, S. (1984). *Inside the criminal mind.* New York: Times Books.

Skager, R., & Kerst, E. (1989). Alcohol and drug use and self-esteem: A psychological perspective. In A. M. Mecca, N. J. Smelser, & J. Vasconcellos (Eds.), *The social importance of self-esteem* (pp. 248–293). Berkeley: University of California Press.

Steele, C. M. (1988). The psychology of self-affirmations: Sustaining the integrity of self. In L. Berkowitz (Ed.), *Advances in experimental social psychology, 21,* (pp. 261–302). New York: Academic Press.

Steffenhagen, R. A. (1990). *Self-esteem therapy.* New York: Praeger

Teyber, E. (1992). *Interpersonal process in psychotherapy: A guide for clinical training* (2nd ed.). Pacific Grove, CA: Brooks/Cole.

Tinsley, H. E. A., & Tinsley, D. J. (1987). Uses of factor analysis in counseling psychology research. *Journal of Counseling Psychology, 34*(4), 414–424.

Tjosvold, D. (1978). Affirmation of the high-power person and his position: Ingratiation in conflict. *Journal of Applied Social Psychology, 8*(3), 230–243.

Valett, R. E. (1991) *Enhancing self-esteem through self-management strategies.* Unpublished manuscript.

Velicer, W. F., & Fava, J. L. (1987). An evaluation of the effects of variable sampling on component, image, and factor analysis. *Multivariate Behavioral Research, 22,* 193–209.

Velicer, W. F., & Jackson, D. N. (1990). Component analysis versus common factor analysis: Some further observations. *Multivariate Behavioral Research, 25*(1), 97–114.

Weiten, W. (1986). *Psychology applied to modern life.* Pacific Grove, CA: Brooks/Cole.

Wells, E. L., & Marwell, G. (1976). *Self-esteem: Its conceptualization and measurement.* Beverly Hills, CA: Sage.

White, R. (1963). Ego and reality in psychoanalytic theory: A proposal regarding independent ego energies. *Psychological Issues, 3*(3), 125–150.

Worthen, B. R., & Sanders, J. R. (1987). *Educational evaluation: Alternative approaches and practical guidelines.* New York: Longman.

Wylie, R. (1974). *The self-concept: Volume I.* Lincoln: University of Nebraska Press.

IMAGE EVALUATION
TEST TARGET (QA-3)

150mm

6"
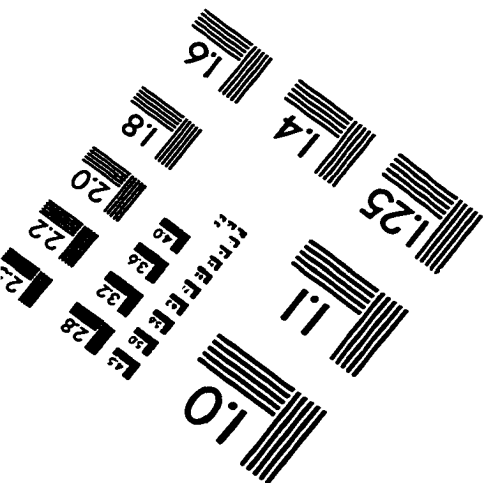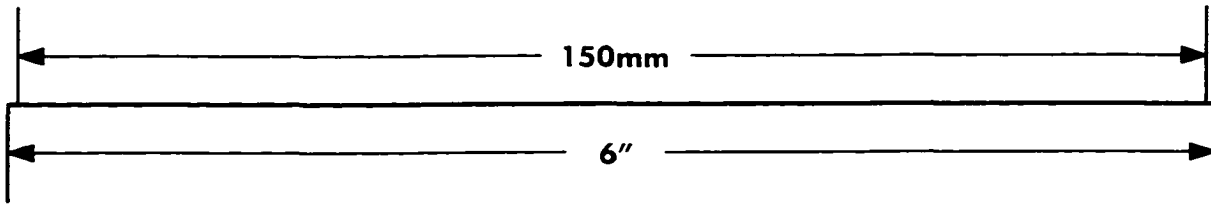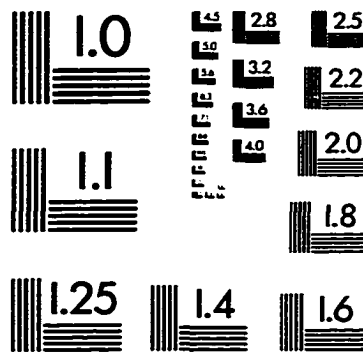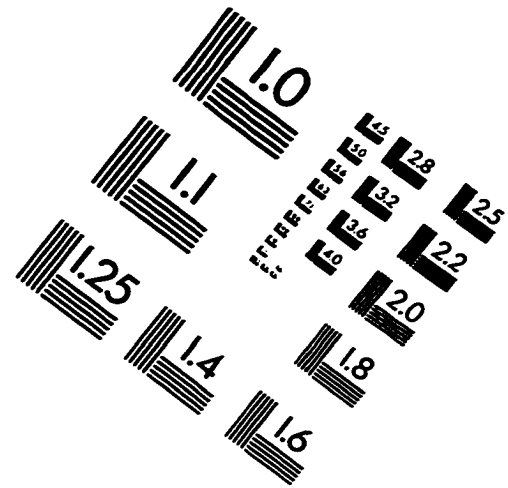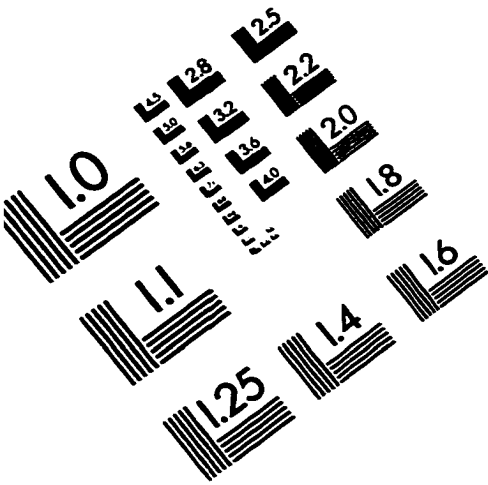
APPLIED IMAGE. Inc
1653 East Main Street
Rochester, NY 14609 USA
Phone: 716/482-0300
Fax: 716/288-5989

© 1993, Applied Image, Inc., All Rights Reserved