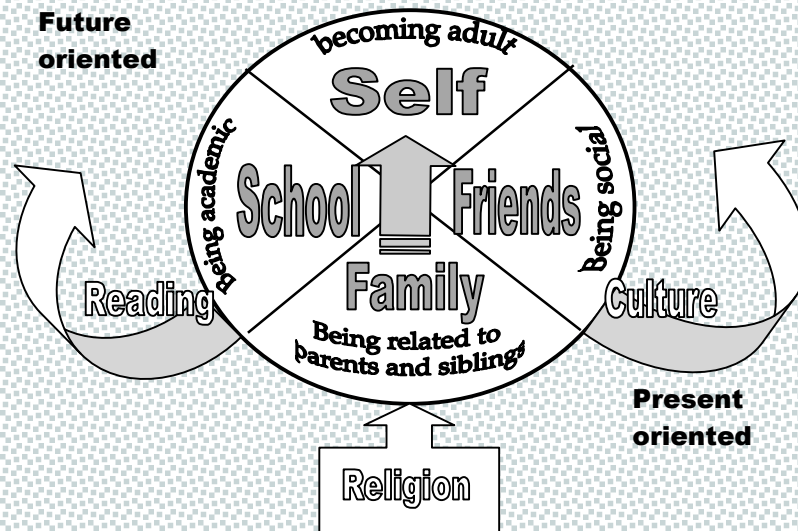


THE HEMINGWAY[®]:

MEASURE OF ADOLESCENT CONNECTEDNESS

(Adolescent Version 5.5

and Child Version 5)



A Manual for Scoring and Interpretation

Michael Justin Karcher, Ed.D., Ph.D.
College of Education and Human Development
The University of Texas ★ San Antonio
501 West Durango Blvd., Office 4.314
San Antonio, Texas 78207
mkarcher@utsa.edu 210-458-2671

Fall 2005 Draft (revised scoring)

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I. INTRODUCTION TO CONNECTEDNESS THEORY, THE HEMINGWAY'S ORIGIN, AND SCALE DEVELOPMENT & THE BENEFITS OF STUDYING CONNECTEDNESS

ORGANIZATION OF THIS MANUAL

This manual provides information on a measure of adolescent connectedness. The 78 item Measure of Adolescent Connectedness, version 5full, has fifteen subscales, including connectedness to religion, romantic partners, mother, father, and kids from other cultures. The second version is the 57 item Adolescent, version 5short. The short version does not include those extra five scales, which some schools have preferred to not include in their surveys (fearing parents would not like to have their children asked about religion, dating, race, or about each parent specifically). Otherwise the two scales are the same. The items in the measure were empirically derived. These scales are currently undergoing a national norming to establish base rates for youth across grades, sexes, and ethnic groups; therefore, only basic information on subscale reliability is presented in this manual. Information from studies describing the development of the scale and the factor structure of previous versions of the scale are available from the author (see Karcher 2002a).

The manual introduces the theory of adolescent connectedness, which reflects the integration of three very useful concepts for understanding adolescent development and delinquency. The theories from which these concepts are taken are introduced in the first part of this manual, and a series of studies leading up to the current versions are presented. In the second part of the manual, the scales are reviewed and each item is assigned to its respective subscale. Descriptions of each subscale, its reliability in previous studies, and its interpretation precede the presentation of the two measures.

The measure is conceptually based on self psychology. Kohut (1977; 1978) argues that two specific experiences are needed throughout life for self-development. The first is the experience of empathy, praise, and attention within dyadic relationships. Adolescents, like infants, need and seek out these experiences to validate their developing sense of self. The second experience is the experience of being in a relationship with someone whom the individual sees as competent, protecting, and consistent. When sufficient praise, empathy, and attention are provided consistently by significant others, youth learn to praise, esteem, and soothe themselves--the hallmark of self-development and mature forms of connectedness. Therefore, the scales are primarily relational and contextual. Yet, the *Hemingway* scales were developed to be used as tools to estimate the effects of interventions, specifically those designed to promote social development and to lessen problem behaviors. As a result, the scales include dimensions (e.g., reading) not described explicitly in the literature upon which the theory is built (e.g., Baumeister & Leary, 1995; Hirschi, 1969; Jessor, 1984, 1993; Kohut, 1977), but which have proven to be of interest to parents, teachers, and administrators who develop such programs. This is because the measures were developed to aid in the study of the consequences of disconnection (e.g., substance use, violence, and depression; see Hawkins, Catalano, & Miller, 1992; Karcher, 2002b, 2003; Karcher & Jensen, 2002), as well as of the activities and attitudes that inform positive social development and reflect strengths in individuals and in communities (Bonny et al., 2000; Clark & Ladd, 2000; Grotevant & Cooper, 1998; Lynch & Cicchetti, 1998; Karcher & Stone, 2002).

INTRODUCTION TO CONNECTEDNESS THEORY

Adolescent connectedness theory explains adolescents' need for belongingness and relatedness. The theory was built initially upon an interpretive-hermeneutic framework, and was structured according to developmental principles, ecological structures, and prevention research. It draws from Nakkula & Selman's (1991) hermeneutical idea that "human being" is best understood as reflecting youths' interpretations of connectedness to the world over time. Their interpretive framework suggests that researchers and prevention program developers should attend to adolescent worlds and how experiences in these worlds are shaped by time—the past, present, and future. Thus, a time orientation—namely present and future—is reflected in the measure's subscales. Conceptually the model extends Baumeister & Leary's (1996) belongingness hypothesis from adults to adolescents. The *Hemingway* is structured by Jessor's (1984; 1992) distinction between conventional and unconventional worlds in the ecology of adolescents. Therefore, the measure can be viewed as assessing present versus future orientation, connectedness to conventional worlds (family, religion, school) and unconventional worlds (peers, neighborhood, self) in two forms of connectedness—action and caring. The measure assesses how these important ecological worlds are experienced by youth. While these basic mechanisms of connectedness are drawn from abstract self psychology, dynamic psychology, and developmental psychology literatures, the goal for this measure was the fairly pragmatic and concrete explanation of behavior in terms of adolescents' ability to satisfy their need to belong through their multiple opportunities for connectedness with people and places.

THE ORIGINS OF "THE HEMINGWAY"

In 1994 Brad Powell and Father Patrick Gahan, at Saint Stephen's Episcopal School in Austin, Texas, asked the measure's creator, Michael Karcher, to develop an instrument that could help them assess changes resulting from a mentoring program they were developing in their school. As a result of their encouragement, a six year project of measurement development began. The measure's items were derived from two literatures, one describing antecedents of academic achievement and the other one reviewing risk-taking and problem behaviors. The main concept of connectedness was derived from a 1991 paper by Michael Nakkula and Robert Selman, both of whom were Karcher's academic mentors at Harvard. Nakkula's notion of youth development suggests that programs serve to promote the youth's "interpretation of his or her connectedness to the world over time." This suggestion served as the basis of the *Hemingway* and guided the development of adolescent connectedness theory (Karcher, 2000b).

The name, *Hemingway*, also has its origin in the biography of Michael Nakkula. The first son of a blue collar family in the upper peninsula of Michigan, Michael Nakkula was the first person in his family to go to college. Nakkula's subsequent attainment of a professorship at Harvard led Karcher to ask him how he understood his academic achievements. Nakkula explained his connectedness to academe through a story about a high school teacher, who, after reading a paper Nakkula wrote for a class assignment, told Nakkula that he wrote like Hemingway. This interpretation of Nakkula's potential, in addition to Nakkula's family support, intellectual strengths, and ability to develop meaningful connections with others, seemed to explain his achievement very well. In honor of that high school teacher's impact, this measure of adolescent connectedness was named *the Hemingway*.

Scale development

The scale was developed systematically using grounded theory approaches, item response theory, and factor analytic studies. This section of the manual overviews this process. Briefly, the measurement development began with focus groups of two kinds: first with youth in schools and second with graduate students familiarized with the concept of connectedness. Then versions one and two were developed, each of which attempted to tap into connectedness with appropriate language and in ways consistent with the goal of serving as an assessment of intervention effectiveness. Once this goal was achieved, (see Karcher, Davis, and Powell, 2002) two more developments occurred, leading to the third version of the measure: 1) the theoretical lens was broadened to include the work of Hirschi (1969)(on ecological attachment), Jessor (1984)(on the conventionality of adolescent worlds), and Baumeister & Leary (1996)(on relatedness and the need to belong); and 2) a factor analysis confirmed the underlying structure of the phenomenon. It became clear that connectedness through “knowing” (which is, by the way, the most common form of prevention intervention—knowledge-based curriculum) did hold together with the questions tapping into action and caring. These theoretical models further honed the focus of the measure and allowed previously unsuccessful or poor scales to be re-developed. These steps towards version four are described more fully in the section below (also see Karcher, 2002a).

FOCUS GROUPS WITH YOUTH: The scale initially was developed in response to the psychological literature on risk taking, but also took into account direct input from high school youth who described what made them feel connected. Two focus groups, with 12 adolescents each, were convened at two points in time to review items after they had been generated from the literature on antecedents of problem behaviors and academic achievement.

A set of items reflecting worlds of connectedness were developed for the measure based on research about adolescent risk taking and achievement motivation which identified the worlds of family, school, friends, reading, religion, and self (identity, self-esteem, and temperament/coping ability). Ecological theory (Bronfenbrenner, 1979) and achievement research (Miller, 1995) identified both neighborhood/community and ethnicity/culture as important worlds of connection. Hermeneutic theory revealed the importance of a future world by providing the originating framework of "connectedness to the world over time" (Gadamer 1975; 1993). These 15 worlds were presented to the two focus groups of youth, who differentiated three more worlds: teachers, peers and siblings. Items referring to “kids” were broken into friends and peers. Family items were broken into parents and siblings. Additional items for connectedness to teachers were developed and written to parallel the affective quality of connectedness to parents. Although one third of the students in both focus groups contested the importance of religion, culture, and neighborhood/community, more than half were adamant that these were important constructs. A group of several adolescents (drawn from the two prior focus groups) convened to help fit the wording to match the theory- and research-based definitions of connectedness.

Resulting items were subjected to content analysis and a construct validity study by graduate students at Harvard University led by John Harris and Michael Nakkula. Two groups of graduate students took Nakkula and Selman's original model, with which they were familiar, and tried to link items to subscales. They then discussed the likely interpretations of different items by youth of different age and ethnic groups, and provided this feedback, which led to an expanded version two that was subsequently explored using item response theory methods and factor analytic techniques.

RESULTING SCALES: In the end, 15 subscales were developed that fell into three dimensions of connectedness: self, others, and society. *Connectedness to self* includes three scales: (1) positive feelings about the self (self-esteem DuBois, 1993; Harter, 1999) and a consistent sense of self over time and across relationships (Erikson, 1967); (2) the ability to be alone and to tolerate rejection and criticism (Kohut and Elson, 1987); and (3) a sense of self-in-the-future (Nakkula and Selman 1991). *Connectedness to others* included five scales: (4) parents; (5) friends; (6) teachers; (7) siblings; and (8) peers. (The peer scale was not developed satisfactorily until version 5). *Connectedness to society* includes scales: (9) school; (10) neighborhood/community; (11) culturally different others; (12) reading (also a part of the self world); and (13) religion.

WAYS OF CONNECTING: COGNITION, CONDUCT, CARING For each of the 15 subscales, items representing knowledge, conduct, and caring for the construct were developed. Developmental theory was used to develop all items, especially the knowledge items. For example, where cognitive-developmental research explained a construct, items were worded to reflect greater cognitive maturity. The item “Good friends always agree” reflected a connectedness to friends through knowledge about friends, and was an item based on the cognitive-developmental literature indicating that kids who think more maturely about friendship know that one part of friendship is being able to weather disagreements.

Conduct and caring items written for each of the 15 constructs were straightforward and accepted by adolescents in the focus groups with little debate. They directly reflected the underlying constructs of "belongingness theory" (Baumeister & Leary, 1996). Conduct has to do with the frequency of action or activity in a world. For example, “For fun, I read a book or magazine on my own at least once a week.” and “I attend a religious service (like church) at least once a month.” Caring items reflect the degree of importance of each of the 15 constructs. Examples include “I love to read.” and “My religion is very important to me.” Caring for others items reflect enjoyment of being with others, and self items reflect positive attitudes and valuation of the self, or self-esteem (“I really like who I am”).

The present Hemingway scales were developed out of three separate scale development factor analytic studies—versions 1 through 3. Neither the connectedness through cognition dimension nor the peers subscale could be satisfactorily developed. Connectedness to peers items did not hold together across ethnic groups. Therefore, it is not included in the present version. The items reflecting connectedness through cognition—the knowledge or cognitive developmental component of the model—were not reliable across subscales. In the first two factor analytic studies, the conduct (or action) and the caring subscales in each world clustered together consistently, and came to represent the majority of all subscales *but* the two "self" subscales. Thus it was decided to exclude the cognitive-developmental component in the measurement's development as the third "way" of connecting (in addition to through caring and action). In the end, 15 world scales were developed. They included mostly questions asking about the degree of activity (conduct) and the positive feelings (caring) toward each world. Some scales were divided into two subscales, such as family (parents and siblings) and self (present and future) which include a present and a future dimension of connectedness.

CONNECTEDNESS CORRELATES AND STRENGTHS OF THE HEMINGWAY

To date, three studies have used the Hemingway to examine the relationships between connectedness and several important psychological constructs among adolescents. Connectedness subscales have been found to correlate with self-esteem, resiliency, protective factors, social interest, and school attitude. Other studies of disconnection have found it to correlate positively

with depression, violence, substance use, academic underachievement, risk-factors, and social skills deficits. Thus, the Hemingway offers the promise of helping professionals work with kids in schools by capturing important correlates of adolescent achievement and risk-taking.

The following list presents a few of the measure's unique characteristics and strengths.

- *Connectedness versus resiliency*: **Resiliency** is often characterized as either an internal quality (e.g., temperament, sense of humor, independence, genetic influence) or macrosystemic position (e.g., experiencing poverty, stressors at home). **Connectedness** reflects actions, which can be increased or decreased through intervention and attitudes which can be shaped or developed through intervention. Thus, connectedness may be more amenable to intervention than is resiliency, and it's predictors and consequences are thoroughly studied in the literature on adolescent risk-taking and social development.
- There are many determinants or predictors of academic achievement and of problem behaviors. These include self-development (e.g., self-control/reaction to anger; self-esteem), interpersonal relationships and attachments, and opportunities in and attitudes towards institutions in society. The most successful interventions address an ecologically broad set of targets, many of which are measurable aspects of connectedness that can be assessed with the *HEMINGWAY*.
- Time is limited and kids resist completing multiple measurements. The *HEMINGWAY* provides one assessment of many important areas of intervention, and serves as a good measure for assessing a prevention program's effectiveness in affecting connectedness.
- Adolescent connectedness is theory-driven but also is appealing because it focuses on strengths. Using domains of connectedness as targets of intervention makes sense to both parents and youth alike. It provides a non-pathologizing measure of variables that are important predictors of success. The concept usually is well received by the public (e.g., in evaluation reports) as well as by public and private funding agencies. Scales can identify opportunities for engagement.
- The measure was developed with ethnically and economically diverse samples of youth. Items not representative of connectedness across diverse groups were abandoned.
- The measure provides 3 different ways to interpret connectedness (described later in the manual) which allows great flexibility in the use of the measure and data.
- The *HEMINGWAY* is ecologically sensitive and reduces the risk of reporting findings that locate problems solely in the child. It is easy for children to understand and is non-reactive. The more reactive scales (race and religion in the adolescent version) are optional and are placed in the last section (items 58-78) so they can easily be eliminated.
- The *HEMINGWAY* is easy to administer, analyze, and interpret. It is free of charge.

**I DO ASK THAT USERS OF THE HEMINGWAY REPORT FINDINGS TO ME &
CONSIDER SHARING THEIR DATA TO HELP ME FURTHER DEVELOP AND VALIDATE THE SCALE.**

II. FOUR MAJOR WORLDS OF CONNECTION: FAMILY, FRIENDS, SCHOOL, AND SELF

This section attempts to convey the meaning of both the 15 main subscales, as well as each individual subscale, particularly as they relate to one another. The four major domains (or worlds) of adolescent connectedness are: **BEING SOCIAL**, **BEING ACADEMIC**, **BEING RELATED**, and **BECOMING**. The "being" and "becoming" terminology reflects the hermeneutic conceptualization that connectedness is a state not a trait, and it is both determined experientially and as a reflection of one's time orientation (e.g., present vs. future)(Nakkula & Selman, 1991). These four domains of connectedness also may be called connectedness to friends, school, family, and self, and reflect the extension of Baumeister & Leary's (1996) "belongingness hypothesis" to adolescents. Either terminology is appropriate. There are additional subscales that reflect empirically and theoretically important dimensions of adolescent connectedness. These include connectedness to reading, neighborhood, and religion, all of which explain academic achievement, delinquency, and psychological health among youth (Karcher & Jensen, 2000).

WORLDS: Each of the four major worlds of connectedness are described below. Most include more than one world subscale (e.g., family = parents + siblings) because at least two separate factor analyses bore out these groupings of subscales. Even though much "connectedness" literature refers to connectedness as a social or interpersonal quality of belonging or closeness (Lee & Robbins, 1998), the **ECOLOGICAL LEVELS** are drawn from the idea that one can be connected to self, others, and to society (and its institutions)(Bronfenbrenner, 1979; Hagerty, Lynch Sauer et al. 1992; Hagerty, Williams et al. 1996). This is because theory and statistical evidence both suggest that interpersonal connections cannot be understood outside of societal or institutional contexts. Indeed, factor analyses have shown that connectedness to others and to society are interrelated.

TIME: Time plays an important role in adolescent connectedness. Ways of being connected can be characterized as either present or future oriented. Connectedness to family and to friends are present-oriented, in general, while connectedness to school is more future-oriented.

WAY OF CONNECTING: As described earlier items may be described as reflecting one (or more) ways of connecting: cognition, conduct, or caring. These include connecting through 1) *cognition*: knowledge or information about a world; 2) *conduct*: action or activity in a world; or 3) *caring*: attitudes toward a world. In general, connecting through conduct and caring tend to more highly correlated, and therefore, not all scales include cognition items if they did not empirically hold up as reflecting the same construct. However, "ways" of connecting are less reliable than the scales described below, and the appropriateness of their use must be determined based on the sample-specific reliability estimates.

UNDERSTANDING THE STRUCTURE OF ADOLESCENT CONNECTEDNESS

Based on three studies using the Hemingway, a consistent structure of adolescent connectedness has been found which reflects the three main aspects of the theory: conventionality, time orientation, and ways of connecting. The Hemingway subscales cluster together or are related in terms of these dimensions. Each of these clusters are described below.

SECTION III: THE SUBSCALES AND COMPOSITE SCALES

Hemingway's 15 Ecological Subscales

Neighborhood (6 items) This connectedness need not be unconventional and related to risk-taking behaviors, but it usually is, especially among older adolescents. It focuses on the time youths' spend in their neighborhood, the quality of their relationships with other kids in their neighborhood, and the degree to which they find their neighborhoods a comfortable, supportive, interesting place to be.

Friends (6 items) This scale tends to correlate with unconventional, sometimes risk-taking behaviors. When this scale score is high, and the conventional subscales of connectedness to family and school are low, the youth is at risk for underachievement, engaging in problem behaviors, and other forms of risky behaviors. The scale asks about how much time youth spend with their friends, how much they trust their friends, and how actively they communicate with friends about personal issues.

Self-in-the-present (6 items) (**SELF-ESTEEM; IDENTITY**): This self-esteem component is not fettered by any one institution or any vision of the future. It is based on experiences in current relationships, a sense of continuity in their behavior across people and places, and an self-awareness of skills, talents, and unique interests that make them interesting and liked by others. This is a positive scale, suggesting that youth are benefiting emotionally from their close relationships and feel good about themselves. However, high scores on this scale, when coupled with low connection scores on *becoming*, *being academic* or *being related*, may suggest that the youth is getting most of his or her self-development and belongingness needs through friends, which can predict risk-taking and underachievement.

Parents (6 items) This scale taps the dimensions of involvement in and caring for their families. Questions measure the amount of time youth spend with their parents, how well they get along with their parents, and their degree of caring for their parents. It is not specific to either parents.

Siblings (5 items) This scale measures youths' involvement with and caring for their siblings. Time spent with siblings tends to be unconventional in nature, but being housed within the conventional confines of the family, it also relates strongly to the conventional worlds of connectedness to parents, father, mother, and peers. There tends to be modest correlation with connectedness to friends and neighborhood as well due to the unconventional qualities of playful engagement of siblings in the neighborhood.

School (6 items) This scale asks about how hard youth work at school, how much they enjoy school, and how successful they feel at school. It focuses on the importance youth place in school (i.e., how much they care for school) and the degree to which youth become actively involved in being successful in school.

Peers (6 items) This scale taps into the degree of positive feelings between the youth and his or her peers, as well as the degree to which the youth enjoys working with peers on projects and school-related tasks. Finally, it captures the absence of conflict. In general, it taps into the degree to which youth feel they fit in with their peers, their sense of belonging in the school in general, and feelings of acceptance.

Teachers (5 items) This scale reflects youths' degree of concern about their relationships with their teachers, their sense of enjoying being with teachers, and their degree of affective involvement in their relationships with their teachers. This scale correlates with connectedness to parents, to school, to the future, and to reading. It also correlates with the conventional dimensions of religion, peers, and kids from other cultures.

Self-in-the-Future (6 items) (**FUTURE ORIENTATION; HOPE**) *Becoming* reflects connectedness to the self that is oriented toward the future rather than toward the present. It is based on the positive qualities of the youth that are perceived by others and on the actions of the youth that they make to secure a positive future. *Becoming* is a sense of self in the future that is based on hope. When coupled with high scores on being academic and connectedness to reading, high scores on this scale reflect youth who place their faith in conventional institutions and are likely to be high achievers.

Reading (6 items) Connectedness to reading is separate from **BEING ACADEMIC**. Being literate is about enjoying reading. It is an escape into a quiet world of one's own where the ideas or topics of thought are one's own choice. Based on the importance of the "capacity to be alone" (Winnicott, 1953), connectedness to reading reflects one's ability to be alone, to escape into a world of one's choice, and to play independently. Reading also connects youth to the tools of school and thus is highly related to **BEING ACADEMIC**.

Kids from other cultures (3 items) Increasingly, youth are put into contexts which require them to interact with culturally different individuals. The ability of youth to effectively negotiate across cultural boundaries is not only a prerogative of schools, but is a key determinant of self-understanding and social connectedness. Much research has examined the role of ethnic identity—one form of connectedness to culture—and has linked this to self-esteem and psychological health for ethnic minority youth. But ethnic pride says little about a youth's willingness or ability to connect across cultural boundaries; for White or Anglo youth, ethnic identity may reflect prejudice more than ethnic belonging. However, for all youth, their openness and desire to meet and get to know culturally different youth predicts positive cross-cultural connectedness. This scale asks about youths' desire to connect with and get to know kids from other cultural groups. It does not ask about the amount of activity spent with other groups, because rural, urban, majority and minority youth all differ in their relative access to other groups, thus making such a scale highly variable across groups. In contrast, measuring one's openness to and interest in other groups provide a less variable measure of connectedness.

Religion (3 items) Connectedness to religion reflects faith in an external power, a larger sense of community connection, and an appreciation of conventional worlds. This faith usually accompanies **BEING RELATED** (i.e., positive experiences in the family), regardless of the family's religiosity. It tends to be low in contexts that do not allow youth religious autonomy—for example, when youth are forced to attend religious services—because being religious is one of the unique situations in which a youth may choose (rather than be provided) a conventional world.

Romantic partner (5 items) This scale asks about how much time youth spend with a boyfriend or girlfriend, how important that person is to them, and how much they open up to that individual by sharing personal concerns and worries with them.

Mother (5 items) This scale is different from the connectedness to parents scale in that it is parent specific, and it includes more of the dimensions of parenting that have been found predictive of successful youth development: communication with parents, limited conflict, and closeness.

Father (5 items) This scale is different from the connectedness to parents scale in that it is parent specific, and it includes more of the dimensions of parenting that have been found predictive of successful youth development: communication with parents, limited conflict, and closeness.

COMPOSITE SCALES

BEING RELATED: CONNECTEDNESS TO FAMILY, PARENTS, and SIBLINGS. *Being related* reflects a sense of being connected to a family. It is about belonging to a group, being accepted and feeling comfortable. *Being related* is not about the future. It is about being comfortable in the present, and feeling esteemed by those with whom one lives. It is not about working hard in school but rather about enjoying the present with family, those relationships that were provided for the child (rather than chosen). It can serve as the basis for connectedness to school--both in the present and future--unless the school is experienced as distinct from and in conflict with family values. When socio-economic class or ethnic differences between the school and family culture are present, connectedness to family may compete with connectedness to school.

BEING SOCIAL: CONNECTEDNESS TO NEIGHBORHOOD AND FRIENDS. *Being social* reflects connectedness to friends in their unique space and time. The adolescent's connectedness to this social world takes place in the neighborhood (usually after school) with friends (as opposed to peers) in the present. When adolescents are *being social* they are not concerned about the future. They are not thinking about doing what will make their families proud or what is best for them academically. It is a present-oriented playful time with people whom they have chosen (as opposed to the conventional relationships they are provided in other contexts). *Being social* is positive, because it provides opportunities to feel esteemed, to learn about oneself, and to exercise social skills and interests not always found in to school and family relationships. Therefore, connectedness to friends and neighborhood correlates most highly with connectedness to self (self-esteem and identity). It is not, however, an unquestionably positive scale. For example, when *being social* is high and *being academic* is low, *being social* usually competes with the conventional worlds of school and family in problematic ways. But the relationship is tricky. *Being social* is the best predictor of self-esteem among delinquent youth; yet, not *being academic* is a better predictor of substance use among delinquents than is *being social*. Interventions should focus on developing connection to future-oriented, conventional worlds like school to offset the degree to which the youth is getting self-development needs (i.e., for praise, empathy, attention, and excitement) in unconventional and risky ways through *being social*.

BEING ACADEMIC: CONNECTEDNESS TO SCHOOL and TEACHERS. *Being academic* is about being future-oriented, pleasing teachers, and working hard in school to secure one's future. Those who report *being academic* see the connection between doing well in school and succeeding in life. They believe that doing well in school will secure their future in the workplace. Adolescents who are connected to school report being connected through hard work and through a sense of reciprocal pay-off: if they work hard in school, the system will take care of them in the future. This scale correlates with **BEING RELATED** and **SELF IN THE FUTURE** because connectedness to **TEACHERS** is an extension of a conventional connectedness to **PARENTS**.

BEING SOCIAL: CONNECTEDNESS TO PEERS and CONNECTEDNESS TO OTHER CULTURES. The nature of this scale remains to be determined. It reflects both conventional connectedness through its correlations with connectedness to **TEACHERS**, **SCHOOL**, and to **PARENTS**. But it also is an extension of an unconventional connectedness in that it shares some relationships with connectedness to friends, neighborhood, and siblings. Most likely this relationship to unconventional domains is a function of the degree to which positive peer relationships reflect positive self-esteem.

BECOMING ONESELF: CONNECTEDNESS TO SELF-IN-THE-PRESENT and SELF-IN-THE-FUTURE. This scale falls neither in the domain of conventional or unconventional. Given that self in the future is clearly conventional, and self in the present tends to be unconventional, this should more directly be seen as a global sense of self for youth across the whole social ecology. If this composite is not reliable (i.e., when pooling items from both scales) then the youth within the sample likely feel one way but not the other, and separate self scales should be used in analyses.

IV SPECIFIC ITEMS IN THE 15 WORLDS OF ADOLESCENT CONNECTEDNESS:**A LISTING OF ITEMS IN EACH SUBSCALE IN GROUPS THAT REFLECT THE THEORETICAL CONCEPTS OF TIME, CHOICE/CONVENTIONALITY, AND MODALITY OF EACH WORLD**

15 WORLDS CONNECTEDNESS SUBSCALES: These scales are grouped according to present versus future worlds, and as reflecting an unconventional world (that youth choose to engage in) or a conventional world (that youth are provided and must engage in). Neighborhood, Friends, Romantic Partner, and Self-esteem/Identity tend to cluster together and reflect connectedness to chosen, unconventional (youth) worlds in the present. Teachers, School-in-present, Family, Kids from Other Cultures, and Religion reflect conventional worlds in the present. Self-in-the-future, School-in-the-future, and Reading reflect conventional worlds in the future. A balance of items reflecting connection through caring and connection through activity are presented (when supported by factor analyses). Attempts to balance the number of reversed (negatively worded) items were made, but only items with factor loadings of .50 or greater were maintained. Similarly, five items were used in the more reliable scales, while six items were included in scales that were more difficult to assess reliably. *Items in bold and italics are those to be reverse scored prior to the assessment of scale means.* 2, 7, 13, 18, 26, 30, 34, 45, 51, 55, 64, 70, 71

WORLDS IN THE ADOLESCENT SOCIAL ECOLOGY—MAC VERSION 5.5 UTSA

Reverse score items 2, 7, 13, 18, 26, 30, 34, 45, 51, 55, 64, 70, 71

Neighborhood (6 items)

- (1) I like hanging out around where I live (like my neighborhood).
 - (11) I spend a lot of time with kids around where I live.
 - (21) I get along with the kids in my neighborhood.
 - (31) I often spend time playing or doing things in my neighborhood.
 - (41) I hang out a lot with kids in my neighborhood.
 - (51) **My neighborhood is boring.**
-

Friends (6 items)

- (2) **Spending time with friends is not so important to me.**
 - (12) I have friends I'm really close to and trust completely.
 - (22) Spending time with my friends is a big part of my life.
 - (32) My friends and I talk openly with each other about personal things.
 - (42) I spend as much time as I can with my friends.
 - (52) My friends and I spend a lot of time talking about things.
-

Self-in-the-present (6 items)

- (3) I can name 5 things that others like about me.
 - (13) **There is not much that is unique or special about me.**
 - (23) I can name 3 things that other kids like about me.
 - (33) I really like who I am.
 - (43) I have special hobbies, skills, or talents.
 - (53) I have unique interests or skills that make me interesting.
-

Parents (6 items)

- (4) My family has fun together.
 - (14) It is important that my parents trust me.
 - (24) I enjoy spending time with my parents.
 - (34) **My parents and I disagree about many things.**
 - (44) My parents and I get along well.
 - (54) I care about my parents very much.
-

Siblings (5 items)

- (5) I have a lot of fun with my brother(s) or sister(s).
 - (15) I feel close to my brother(s) or sister(s).
 - (25) I enjoy spending time with my brothers/sisters.
 - (35) I try to spend time with my brothers/sisters when I can.
 - (45) **I try to avoid being around my brother/sister(s).**
-

School (6 items)

- (6) I work hard at school.
 - (16) I enjoy being at school.
 - (26) **I get bored in school a lot.**
 - (36) I do well in school.
 - (46) I feel good about myself when I am at school.
 - (56) Doing well in school is important to me.
-

Peers (6 items)

- (7) **My classmates often bother me.**
 - (17) I like pretty much all of the other kids in my grade.
 - (27) I like working with my classmates.
 - (37) I get along well with the other students in my classes.
 - (47) I am liked by my classmates.
 - (57) I rarely fight or argue with the other kids at school.
-

Teachers (6 items)

- (8) I care what my teachers think of me.
 - (18) **I do not get along with some of my teachers.**
 - (28) I want to be respected by my teachers.
 - (38) I try to get along with my teachers.
 - (48) I always try hard to earn my teachers' trust.
 - (50) I usually like my teachers.
-

Future (6 items)

- (9) I will have a good future.
 - (19) Doing well in school will help me in the future.
 - (29) I do things outside of school to prepare for my future.
 - (39) I do lots of things to prepare for my future.
 - (49) I think about my future often.
 - (55) **What I do now will not affect my future.**
-

Reading (4 items)

- (10) I enjoy spending time by myself reading.
 - (20) I like to read.
 - (30) **I never read books in my free time.**
 - (40) I often read when I have free time.
-

Kids from other cultures (3 items)

- (60) I like getting to know kids from other cultural or racial groups.
 - (65) I would like to know more people from different cultural groups.
 - (69) I like getting to know people who are culturally different from me.
-

Religion (3 items)

- (62) My religion is very important to me.
 - (71) I attend a religious service (like church) regularly.
 - (75) I am a religious or faithful person.
-

Romantic partner (5 items)

- (61) I spend a lot of time with a boyfriend / girlfriend.
 - (66) I have a boyfriend / girlfriend who is very important to me.
 - (70) **I don't really care about having a boyfriend/girlfriend.**
 - (74) I share my worries and concerns with a boyfriend / girlfriend.
 - (76) I spend as much time as I can with a girlfriend / boyfriend.
-

Mother (5 items)

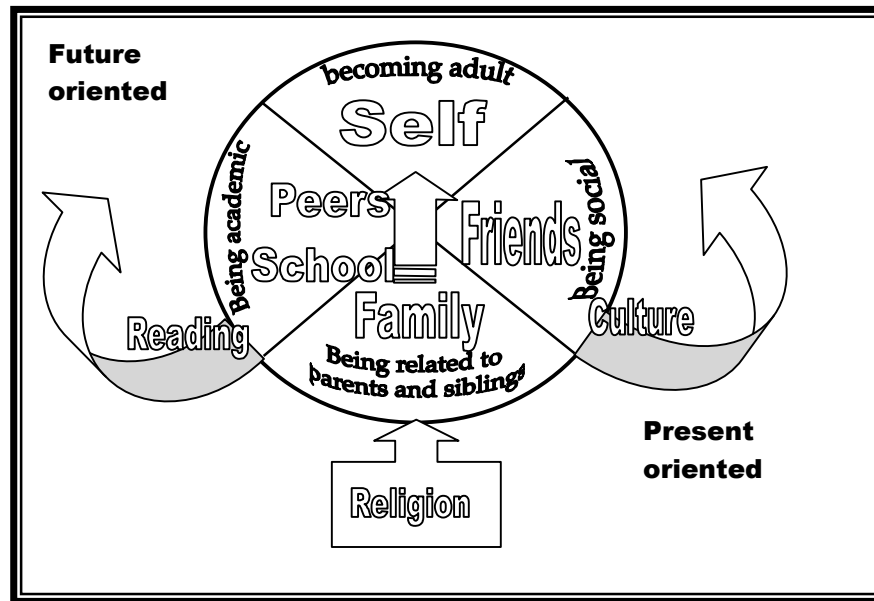
- (59) I enjoy spending time with my mother.
 - (63) My mother and I are pretty close.
 - (68) My mother cares a lot about me.
 - (73) **My mother and I argue a lot.**
 - (77) I talk with my mother about very personal things and my problems.
-

Father (5 items)

- (58) I enjoy spending time with my father.
 - (64) My father and I are pretty close.
 - (67) My father cares a lot about me.
 - (72) **My father and I argue a lot.**
 - (78) I talk with my father about very personal things and my problems.
-

V. ALTERNATIVE WAYS OF SCORING ASSESSMENTS OF CONNECTEDNESS

- **4 MAJOR WORLDS AND 15 SUBSCALES**
- **WAYS OF CONNECTING: ACTION OR CARING**
- **3 ECOLOGICAL LEVELS OF CONNECTEDNESS: SELF, OTHERS, SOCIETY**

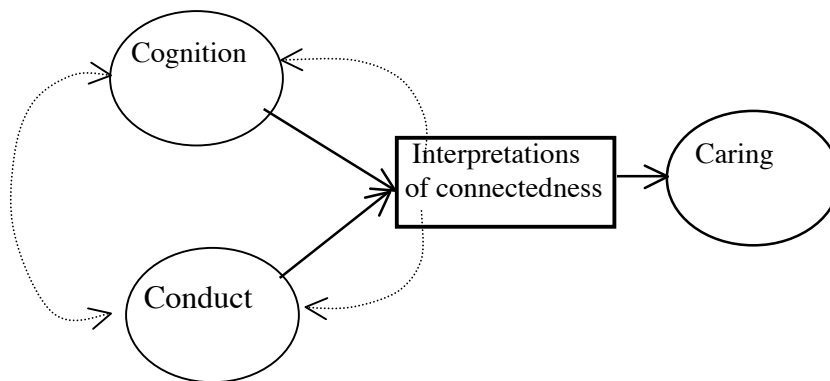


GENERAL 15 SUBSCALES OF ADOLESCENT CONNECTEDNESS

The Hemingway subscales measure positive connections to important adolescent worlds. There are four major worlds (composite scales) of connectedness as well as several related worlds (subscales). The four major worlds include connectedness to 1) **school** (school work and teachers), 2) **family** (parents and siblings), 3) **friends** and romantic partners, and 4) **self** are depicted in the figure above. In the adolescent version, other connectedness subscales include peers, reading, “culturally different others,” religion, and neighborhood (not depicted above, this world falls within the friends world, primarily). Self-in-the-future relates to school, teachers, and reading (all on the left side), while self-in-the-present relates to culture, friends, and neighborhood (all towards the right side). The theoretical basis and empirical validation for these scales is described here and more fully elsewhere (Karcher, 2000a).

TWO ADDITIONAL GROUPINGS OF SCALES

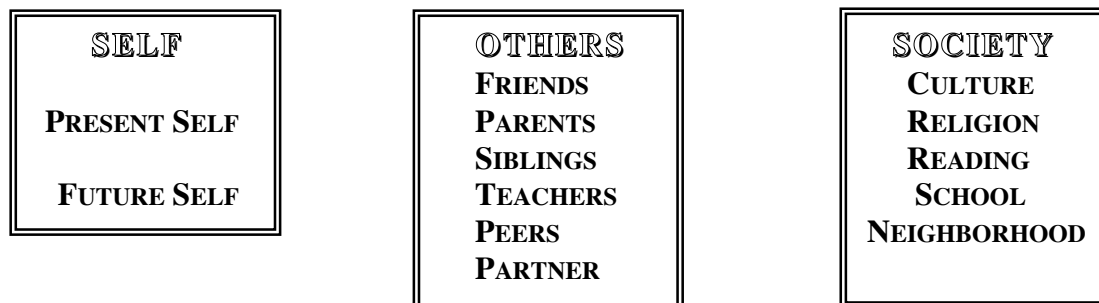
There are two other groupings of connectedness subscales on the Hemingway. These are as “ways” of connecting (conduct and caring) and the 3 “ecological worlds” (self, other, and society). However these groupings usually include redundant items from the 15 “worlds” above. Therefore, the use of the 15 subscales or four most reliable subscales (self, school, family, and friends) versus the two ways and ecological levels described below should be guided by theory and research questions. The “ways” and “ecological levels” should not be correlated with one another or with the 15 subscales, because in most cases these scales will be linearly dependent on one another and will produce artificially high correlations because of shared items. Such a lack of independence would prohibit any interpretation of their relationships. For example, the connectedness to the ecological “society” level consists items from both of the “family” and “school” worlds; thus, arguing that connectedness to **society** best predicts connectedness to the **school** would reflect a spurious correlation based on a statistical redundancy. Therefore, interpretation these scales should be done carefully. It is best to choose to use either the 15 subscales described earlier, or the two groupings described below, and ensure that scales are carefully intercorrelated and interpreted.



WAYS OF CONNECTING: The two primary scales reflecting ways of connecting are through conduct (activity) and caring. Most other scales of connectedness refer only to the affective bond, connection, or sense of belonging. However, the degree to which one is physically and temporally active in a world reflects one form of connection, and it is a form that, when coupled with positive experiences (conduct), should lead to greater caring in that world (Karcher, 2000b). Similarly, cognition or knowledge is another way of connecting to a world—through knowledge about self, others, or society. However, knowledge is not a good predictor of behavior or attitude. Cognitive-developmental stages are useful predictors of caring, but are not easily measurable by a few questionnaire items (Schultz and Selman 1998). From an intervention point of view, either action (conduct) in a world or information about a world can be promoted. Both are forms of connectedness that can be targeted to promote caring through interventions. This occurs through reflections on either type of connectedness. However, depending on the target of intervention, activity-based connectedness efforts may be more effective than didactic information-based interventions.

The Hemingway measure has activity and caring items that can be assessed across social worlds. For example, a program might target promoting connection through action, and measure connection through caring as the result. The resulting connection to that world through caring can serve as an outcome measure of the intervention's success (or failure). But, again, in many cases these scores are linearly dependent on the other 15 “worlds” and should not be correlated with them because they are not independent of one another.

THREE ECOLOGICAL LEVELS OF CONNECTEDNESS



ECOLOGICAL LEVELS OF CONNECTION: The ecological worlds of connection reflect three groupings: connectedness to self, connectedness to others, and connectedness to society. These groupings include subscales drawn from the 15 “worlds” of connection and should not be

correlated with them in most cases because of linear dependency. However, given a researcher's questions, understanding differences in connectedness to self, others, and society, may be important because of their relationships to specific outcome measures or variables. For example, delinquency is often considered a manifestation of disconnection from society, especially from school, religion, etc. Therefore an overall measure of this connection may be useful. Similarly, from a self-psychology theoretical perspective, self-connection includes esteem, cohesiveness, and the ability to spend time alone (e.g., reading).

The important point is that there are three approaches to understanding adolescent connectedness which can be computed through the use of the Hemingway subscales, and the most effective use of these scales should be planned prior to data collection and analysis. These three choices are to use 1) the 15 (or more robust 8) connectedness to world subscales (e.g., friends, religion, school-in-future); 2) to look at caring vs. conduct across social worlds (e.g., friends, family, teachers, siblings, culture); or 3) ecological worlds (i.e., self, others, and society). In some cases, the use of more than one of these strategies might be warranted.

VI. RELIABILITY ESTIMATES FOR SUBSCALES IN VERSION 4 BY THE 3 ECOLOGICAL WORLDS

CONNECTEDNESS TO SELF Connectedness to self is based on developmental theory, namely Kohut's self-development model, Erikson's model of identity development, and Winnicott's concept about the capacity to be alone. Kohut describes the angry reaction to disconnection (especially in the form of criticism) when self-development has resulted in a fragmented self. Therefore the reaction to disconnection captures anger in response to disconnection, namely disconnection that triggers narcissistic needs. Conversely, Winnicott describes the capacity to be alone, which supports one's interest in reading and one's ability to feel cohesive when alone. Therefore, reading reflects that capacity to be alone and to be content when connected only to oneself. Lastly, connectedness to self through self-esteem and identity reflects one's self-assessment of him/herself as a worthy, likeable, and unique person.

CONNECTEDNESS TO SELF ("BECOMING")

CONNECTEDNESS TO SELF (PRESENT & FUTURE)=(Alpha=.83)

- Connectedness to self through self-esteem and identity (Alpha=.86)
- Connectedness to self in the future (future self and school)(Alpha=.77)

SOCIAL CONNECTEDNESS Connectedness to others includes 4 subscales all based on Baumeister & Leary's (1995) "need to belong" theory, which emphasizes affective commitment and contact or engagement with others as a primary human need. Trust, pride, time spent together, and enjoyment of time spent with others constitute the core of "social connectedness."

CONNECTEDNESS TO OTHERS ("BEING RELATED")

- Connectedness to parents (Alpha=.81)
- Connectedness to siblings (Alpha=.94)
- Connectedness to friends (Alpha=.71)
- Connectedness to teachers (Alpha=.84)
- Connectedness to peers (Alpha=.71)
- *Long version:* Connectedness to a boyfriend/girlfriend (Alpha=N/A)
- *Long version:* Connectedness to culturally different others (Alpha=.82)
- *Long version:* Connectedness to mother (Alpha=.83)
- *Long version:* Connectedness to father (Alpha=.92)
- *Long version:* **Connectedness to parents** (mother and father) (Alpha=.87)

CONNECTEDNESS TO SOCIETY Connectedness to society reflects concepts from ecological and problem-behavior theories. Bronfenbrenner's ecological model of human development suggests that both the self and one's relationships ("microsystems") are embedded within larger systems of reciprocal influence. Jessor's problem behavior theory suggests that institutions are seen by youth as conventional or non-conventional. Engagement in each predicts problem behaviors among youth and can distinguish between disconnected (i.e., delinquent) and connected youth.

CONNECTEDNESS TO SOCIETY ("BEING CIVIC")

CONNECTEDNESS TO SCHOOL (TEACHERS AND TEACHERS) (Alpha=.86)

CONNECTEDNESS TO FAMILY (Parents and siblings: Alpha=.85)

Connectedness to school (future and present questions; not teachers; Alpha=.80)

Connectedness to neighborhood/community (Alpha=.73)

Connectedness to reading (Alpha=.92)

Long version: Connectedness to religion (Alpha=.91)

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VIII. Scoring the Hemingway Measures of Adolescent Connectedness

Subsequent pages include the HEMINGWAY Measures of Connectedness MAC5

1. Adolescent Long version (includes race, religion, romantic partner, and parent scales)
2. Adolescent Short version ends with item 57 (so just omit last 20 questions)
3. Pre-Adolescent (Child version 4) with scoring instructions

Scoring syntax is provided as well. To use it, copy this text into an SPSS syntax file. Save the syntax file. Highlight all of the text in the file after opening the data file you have created (using the variable names shown in the syntax files) and then click the sideways arrow in the syntax menu bar. An output file will be generated with reliability estimates (after the negatively worded items have been reversed) and subscales will be created in your spss data file.

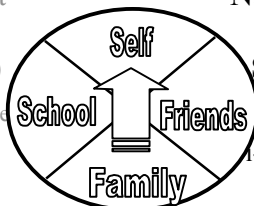
The Hemingway Measure of Adolescent

Date: _____

Name/Number: _____

Connectedness © (MAC 5 Adolescent, grades 6-12)

M. J. Karcher, Ed.D., Ph.D., Cultural & Developmental Institute

Who do you live with? ☐ mother ☐ father☐ both ☐ other: _____**Sex:** Male ___ Female ___ **Grade:** ___ **Age:** ___**Race/ ethnicity:** White ___ Black ___ Hispanic ___

Multi-racial ___ Native American ___ Other: _____

Please use this survey to tell us about yourself. Read each statement. CIRCLE the number that best describes how true that statement is for you or how much you agree with it. If a statement is unclear to you, ask for an explanation. If it still unclear, put a "?".

"How TRUE about you is each sentence?" Not at all **1** Not really **2** Sort of true **3** True **4** Very true **5**

	Not at all	Not really	Sort of	True	Very true
(1) I like hanging out around where I live (like my neighborhood).	1	2	3	4	5
(2) Spending time with friends is not so important to me.	1	2	3	4	5
(3) I can name 5 things that my friends like about me.	1	2	3	4	5
(4) My family has fun together.	1	2	3	4	5
(5) I have a lot of fun with my brother(s) or sister(s).					
(leave blank if you have none.)	1	2	3	4	5
(6) I work hard at school.	1	2	3	4	5
(7) My classmates often bother me.	1	2	3	4	5
(8) I care what my teachers think of me.	1	2	3	4	5
(9) I will have a good future.	1	2	3	4	5
(10) I enjoy spending time by myself reading.	1	2	3	4	5
	Not at all	Not really	Sort of	True	Very true
(11) I spend a lot of time with kids around where I live.	1	2	3	4	5
(12) I have friends I'm really close to and trust completely.	1	2	3	4	5
(13) There is not much that is unique or special about me.	1	2	3	4	5
(14) It is important that my parents trust me.	1	2	3	4	5
(15) I feel close to my brother(s) or sister(s).	1	2	3	4	5
(leave blank if you have none.)					
(16) I enjoy being at school.	1	2	3	4	5
(17) I like pretty much all of the other kids in my grade.	1	2	3	4	5
(18) I do not get along with some of my teachers.	1	2	3	4	5
(19) Doing well in school will help me in the future.	1	2	3	4	5
(20) I like to read.	1	2	3	4	5

Not at all Not really Sort of True Very true

	Not at all	Not really	Sort of	True	Very true
(21) I get along with the kids in my neighborhood.	1	2	3	4	5
(22) Spending time with my friends is a big part of my life.	1	2	3	4	5
(23) I can name 3 things that other kids like about me.	1	2	3	4	5
(24) I enjoy spending time with my parents.	1	2	3	4	5
(25) I enjoy spending time with my brothers/ sisters.	1	2	3	4	5
(leave blank if you have none.)					
(26) I get bored in school a lot.	1	2	3	4	5
(27) I like working with my classmates.	1	2	3	4	5
(28) I want to be respected by my teachers.	1	2	3	4	5
(29) I do things outside of school to prepare for my future.	1	2	3	4	5
(30) I never read books in my free time.	1	2	3	4	5
(31) I often spend time playing or doing things in my neighborhood.	1	2	3	4	5
(32) My friends and I talk openly with each other about personal things.	1	2	3	4	5
(33) I really like who I am.	1	2	3	4	5
	Not at all	Not really	Sort of	True	Very true
(34) My parents and I disagree about many things.	1	2	3	4	5
(35) I try to spend time with my brothers/ sisters when I can.	1	2	3	4	5
(36) I do well in school.	1	2	3	4	5
(37) I get along well with the other students in my classes.	1	2	3	4	5
(38) I try to get along with my teachers.	1	2	3	4	5
(39) I do lots of things in school to prepare for my future.	1	2	3	4	5
(40) I often read when I have free time.	1	2	3	4	5
(41) I hang out a lot with kids in my neighborhood.	1	2	3	4	5
(42) I spend as much time as I can with my friends.	1	2	3	4	5
(43) I have special hobbies, skills, or talents.	1	2	3	4	5
(44) My parents and I get along well.	1	2	3	4	5
(45) I try to avoid being around my brother/ sister(s).	1	2	3	4	5
(leave blank if you have none.)					
(46) I feel good about myself when I am at school.	1	2	3	4	5
(47) I am liked by my classmates.	1	2	3	4	5
(48) I always try hard to earn my teachers' trust.	1	2	3	4	5

	Not at all	Not really	Sort of	True	Very true
(49) I think about my future often.	1	2	3	4	5
(50) I usually like my teachers.	1	2	3	4	5
(51) My neighborhood is boring.	1	2	3	4	5
(52) My friends and I spend a lot of time talking about things.	1	2	3	4	5
(53) I have unique interests or skills that make me interesting.	1	2	3	4	5
(54) I care about my parents very much.	1	2	3	4	5
(55) What I do now will not affect my future.	1	2	3	4	5
(56) Doing well in school is important to me.	1	2	3	4	5
(57) I rarely fight or argue with the other kids at school.	1	2	3	4	5

(Leave **mother** or **father** blank if deceased. If living with a relative/guardian, answer using **mother** ?s)

	Not at all	Not really	Sort of	True	Very true
(58) I enjoy spending time with my father.	1	2	3	4	5
(59) I enjoy spending time with my mother.	1	2	3	4	5
(60) I like getting to know kids from other cultural or racial groups.	1	2	3	4	5
(61) I spend a lot of time with a boyfriend / girlfriend.	1	2	3	4	5
(62) My religion is very important to me.	1	2	3	4	5
(63) My mother and I are pretty close.	1	2	3	4	5
(64) My father and I are pretty close.	1	2	3	4	5
(65) I would like to know more people from different cultural groups.	1	2	3	4	5
(66) I have a boyfriend / girlfriend who is very important to me.	1	2	3	4	5
(67) My father cares a lot about me.	1	2	3	4	5
(68) My mother cares a lot about me.	1	2	3	4	5
(69) I like getting to know people who are culturally different from me.	1	2	3	4	5
(70) I don't really care about having a boyfriend / girlfriend.	1	2	3	4	5
(71) I attend a religious service (like church) regularly.	1	2	3	4	5
(72) My father and I argue a lot.	1	2	3	4	5
(73) My mother and I argue a lot.	1	2	3	4	5
(74) I share my worries and concerns with a boyfriend / girlfriend.	1	2	3	4	5
(75) I am a religious or faithful person.	1	2	3	4	5
(76) I spend as much time as I can with a girlfriend / boyfriend.	1	2	3	4	5
(77) I talk with my mother about very personal things and my problems.	1	2	3	4	5
(78) I talk with my father about very personal things and my problems.	1	2	3	4	5

SPSS Syntax for the Adolescent Version—Recoding, Reliability Estimates, Scale Creation

```
RECODE
  v2 v7 v13 v18 v26 v30 v34 v45 v51 v55 v70 v72 v73 (1=5) (2=4) (4=2) (5=1)
.
EXECUTE .
```

```
TITLE "Hemingway Adolescent Version 5.5 Reliability Estimate".
SUBTITLE Subscale Below Entitled: Connectedness to Neighborhood'.
RELIABILITY
  /VARIABLES=v1 v11 v21 v31 v41 v51
  /FORMAT=NOLABELS
  /SCALE(ALPHA)=ALL/MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE
  /SUMMARY=TOTAL .
```

```
TITLE "Hemingway Adolescent Version 5.5 Reliability Estimate".
SUBTITLE Subscale Below Entitled: Connectedness to Friends'.
RELIABILITY
  /VARIABLES=v2 v12 v22 v32 v42 v52
  /FORMAT=NOLABELS
  /SCALE(ALPHA)=ALL/MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE
  /SUMMARY=TOTAL .
```

```
TITLE "Hemingway Adolescent Version 5.5 Reliability Estimate".
SUBTITLE Subscale Below Entitled: Self in the Present'.
RELIABILITY
  /VARIABLES=v3 v13 v23 v33 v43 v53
  /FORMAT=NOLABELS
  /SCALE(ALPHA)=ALL/MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE
  /SUMMARY=TOTAL .
```

```
TITLE "Hemingway Adolescent Version 5.5 Reliability Estimate".
SUBTITLE Subscale Below Entitled: Connectedness to Parents'.
RELIABILITY
  /VARIABLES=v4 v14 v24 v34 v44 v54
  /FORMAT=NOLABELS
  /SCALE(ALPHA)=ALL/MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE
  /SUMMARY=TOTAL .
```

```
TITLE "Hemingway Adolescent Version 5.5 Reliability Estimate".
SUBTITLE Subscale Below Entitled: Connectedness to Siblings'.
RELIABILITY
  /VARIABLES=v5 v15 v25 v35 v45
  /FORMAT=NOLABELS
```

```
/SCALE(ALPHA)=ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL .
```

TITLE "Hemingway Adolescent Version 5.5 Reliability Estimate".

SUBTITLE Subscale Below Entitled: Connectedness to School'.

RELIABILITY

```
/VARIABLES=v6 v16 v26 v36 v46 v56
/FORMAT=NOLABELS
/SCALE(ALPHA)=ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL .
```

TITLE "Hemingway Adolescent Version 5.5 Reliability Estimate".

SUBTITLE Subscale Below Entitled: Connectedness to Peers'.

RELIABILITY

```
/VARIABLES=v7 v17 v27 v37 v47 v57
/FORMAT=NOLABELS
/SCALE(ALPHA)=ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL .
```

TITLE "Hemingway Adolescent Version 5.5 Reliability Estimate".

SUBTITLE Subscale Below Entitled: Connectedness to Teachers'.

RELIABILITY

```
/VARIABLES=v8 v18 v28 v38 v48 v50
/FORMAT=NOLABELS
/SCALE(ALPHA)=ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL .
```

TITLE "Hemingway Adolescent Version 5.5 Reliability Estimate".

SUBTITLE Subscale Below Entitled: Self-in-the-future'.

RELIABILITY

```
/VARIABLES=v9 v19 v29 v39 v49
/FORMAT=NOLABELS
/SCALE(ALPHA)=ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL .
```

TITLE "Hemingway Adolescent Version 5.5 Reliability Estimate".

SUBTITLE Subscale Below Entitled: Connectedness to Reading'.

RELIABILITY

```
/VARIABLES=v10 v20 v30 v40
/FORMAT=NOLABELS
/SCALE(ALPHA)=ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL .
```

TITLE "Hemingway Adolescent Version 5.5 Reliability Estimate".

SUBTITLE Subscale Below Entitled: Connectedness to Father'.

RELIABILITY

/VARIABLES=v58 v64 v67 v72 v78

/FORMAT=NOLABELS

/SCALE(ALPHA)=ALL/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE

/SUMMARY=TOTAL .

TITLE "Hemingway Adolescent Version 5.5 Reliability Estimate".

SUBTITLE Subscale Below Entitled: Connectedness to Mother'.

RELIABILITY

/VARIABLES=v59 v63 v68 v73 v77

/FORMAT=NOLABELS

/SCALE(ALPHA)=ALL/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE

/SUMMARY=TOTAL .

TITLE "Hemingway Adolescent Version 5.5 Reliability Estimate".

SUBTITLE Subscale Below Entitled: Connectedness to Kids from other Cultures'.

RELIABILITY

/VARIABLES=v60 v65 v69

/FORMAT=NOLABELS

/SCALE(ALPHA)=ALL/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE

/SUMMARY=TOTAL .

TITLE "Hemingway Adolescent Version 5.5 Reliability Estimate".

SUBTITLE Subscale Below Entitled: Connectedness to a Romantic Partner'.

RELIABILITY

/VARIABLES=v61 v66 v70 v74 v76

/FORMAT=NOLABELS

/SCALE(ALPHA)=ALL/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE

/SUMMARY=TOTAL .

TITLE "Hemingway Adolescent Version 5.5 Reliability Estimate".

SUBTITLE Subscale Below Entitled: Connectedness to Religion'.

RELIABILITY

/VARIABLES=v62 v71 v75

/FORMAT=NOLABELS

/SCALE(ALPHA)=ALL/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE

/SUMMARY=TOTAL .

COMPUTE h_neigh1 = MEAN(v1,v11,v21,v31,v41,v51) .

VARIABLE LABELS h_neigh1 'Neighborhood1' .

EXECUTE .

COMPUTE hfriend1 = MEAN(v2,v12,v22,v32,v42,v52) .

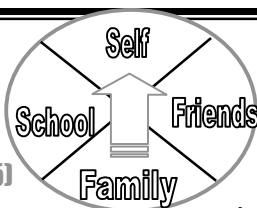
```

VARIABLE LABELS hfriend1 'Friends1' .
EXECUTE .
COMPUTE hs_pres1 = MEAN(v3,v13,v23,v33,v43,v53) .
VARIABLE LABELS hs_pres1 'Self-in-the-Present1' .
EXECUTE .
COMPUTE h_paren1 = MEAN(v4,v14,v24,v34,v44,v54) .
VARIABLE LABELS h_paren1 'Parents1' .
EXECUTE .
COMPUTE h_sibl1 = MEAN(v5,v15,v25,v35,v45) .
VARIABLE LABELS h_sibl1 'Siblings1' .
EXECUTE .
COMPUTE hschool1 = MEAN(v6,v16,v26,v36,v46,v56) .
VARIABLE LABELS hschool1 'School1' .
EXECUTE .
COMPUTE h_peers1 = MEAN(v7,v17,v27,v37,v47,v57) .
VARIABLE LABELS h_peers1 'Peers1' .
EXECUTE .
COMPUTE h_teach1 = MEAN(v8,v18,v28,v38,v48,v50) .
VARIABLE LABELS h_teach1 'Teachers1' .
EXECUTE .
COMPUTE hs_fut1 = MEAN(v9,v19,v29,v39,v49) .
VARIABLE LABELS hs_fut1 'Self-in-the-Future1' .
EXECUTE .
COMPUTE h_read1 = MEAN(v10,v20,v30,v40) .
VARIABLE LABELS h_read1 'Reading1' .
EXECUTE .
COMPUTE h_dad1 = MEAN(v58,v64,v67,v72,v78) .
VARIABLE LABELS h_dad1 'Father1' .
EXECUTE .
COMPUTE h_mom1 = MEAN(v59,v63,v68,v73,v77) .
VARIABLE LABELS h_mom1 'Mother1' .
EXECUTE .
COMPUTE h_cult1 = MEAN(v60,v65,v69) .
VARIABLE LABELS h_cult1 'Othercultures1' .
EXECUTE .
COMPUTE h_rom1 = MEAN(v61,v66,v70,v74,v76) .
VARIABLE LABELS h_rom1 'RomanticPartner1' .
EXECUTE .
COMPUTE h_relig1 = MEAN(v62,v71,v75) .
VARIABLE LABELS h_relig1 'Religion1' .
E           X           E           C           U           T           E           .

```

The Hemingway®
Measure of PRE-Adolescent
Connectedness (Grades 3-6: Pre-MAC5)

M. J. Karcher, Ed.D., Ph.D., University of Texas ★ San Antonio



Name/Number: _____ Date: _____

Sex: Male__ Female__ Grade:__ Age:__

Race/ethnicity: White__; Black__; Hispanic__;

Asian__; Bi-racial__; Native American: __ Other: _____

Please use this survey to tell us what you do and who you are. Read each statement. Circle the number that best describes how true that statement is for you. If a statement is unclear to you, ask for an explanation. If the statement is *still* unclear or does not apply to you, circle the number and put a "?".

HOW TRUE about you is each sentence? Not true=**1** Sort of true=**2** True=**3** Very true=**4**

	Not true	Sort of true	True	Very true
1. There are lots of things to do in my neighborhood.....	1	2	3	4
2. I get along with my parents.	1	2	3	4
3. I work hard at school.	1	2	3	4
4. I like almost all of the kids in my class.	1	2	3	4
5. I am good at reading.	1	2	3	4
6. My friends spend a lot of time together.	Not true 1	Sort of true 2	True 3	Very true 4
7. I like spending time with my parents.	1	2	3	4
8. I try to get good grades in school.	1	2	3	4
9. There are many kids at my school who I <i>do not</i> like.	1	2	3	4
10. For fun I read on my own.	1	2	3	4
11. I can name several things that other kids really like about me.	Not true 1	Sort of true 2	True 3	Very true 4
12. I want my parents to be proud of me.	1	2	3	4
13. I always do what my teachers tell me to do.	1	2	3	4
14. I get into fights with other kids.	1	2	3	4
15. I read for fun when I have free time.	1	2	3	4
16. I like to spend time with my friends.	Not true 1	Sort of true 2	True 3	Very true 4
17. I play with my brothers (or sisters) a lot. (Leave blank if only child)	1	2	3	4
18. I feel good about myself at school.	1	2	3	4
19. I have a hard time paying attention in math class.	1	2	3	4

Please continue	Not true	Sort of true	True	Very true
20. I have fun with the other kids in my classes.	1	2	3	4
21. I play a lot in my neighborhood.	1	2	3	4
22. I don't like my brothers or sisters. (Leave blank if you have none)	1	2	3	4
23. I always do what my teachers tell me to do.	1	2	3	4
24. I always get bored in school.	1	2	3	4
<hr/>				
	Not true	Sort of true	True	Very true
25. I love to read.	1	2	3	4
26. I am lonely in my neighborhood.	1	2	3	4
27. My teachers like the kind of kid I am.	1	2	3	4
28. I really like my teachers.	1	2	3	4
29. I never get in trouble at school	1	2	3	4
<hr/>				
	Not true	Sort of true	True	Very true
30. I trust my friends.	1	2	3	4
31. My sisters (or brothers) are fun to be with. (Leave blank if you have none)	1	2	3	4
32. I like school.	1	2	3	4
33. I can't sit still in class.	1	2	3	4
34. My friends and I argue too much.	1	2	3	4
<hr/>				
	Not true	Sort of true	True	Very true
35. My parents are always proud of me.	1	2	3	4
36. School is a fun place.	1	2	3	4
37. I get along with all of the kids in my classes.	1	2	3	4
38. I wish I did not get into so much trouble.	1	2	3	4
39. I like my neighborhood.	1	2	3	4
40. I like spending time with my classmates.	1	2	3	4

☞ You finished the MAC—thanks for doing this! ☞

Scoring for the Hemingway 5: Measure of Pre-adolescent Connectedness

To compute the mean subscale score for each social ecology of connectedness, take the average of all items representing that scale (after reverse scoring negative items):

9 14 19 22 24 26 33 34 38

Neighborhood 4 item scale = mean of 4 items: 1, 21, 26R, 39

Parents 3 item scale = mean of 3 items: 2, 7, 12 (35*)

School 5 item scale = mean of 5 items: 3, 8, 24R, 32, 36 (18*)

Peers 5 item scale = mean of 5 items: 4, 9R, 20, 37, 40 (11*)

Reading 4 item scale = mean of 4 items: 5, 10, 15, 25

Friends 4 item scale = mean of 4 items: 6, 16, 30, 34R

Siblings 3 items scale = mean of 3 items: 17, 22R, 31

Teachers 3 item scale = mean of 3 items: 13, 23, 28 (27*)

*Self-esteem 4 item scale = mean of 4 items, 11(peer), 18(school), 27(teachers), 35(parents)

Self-management 5 item scale = mean of 5 items: 14R, 19R, 29, 33R, 38R

Reliability

Sometimes a reversed item reduces the reliability. If it reduces the reliability a lot, then take the mean without that item. However, if the reversed items reduce the reliability of all of the subscales, then most likely a considerable number of the youth completing the scale were not paying attention (responding positively to negatively worded items), which may compromise the validity of the data and conclusions drawn from the data.

Below reliability estimates (Cronbach's alpha) are presented, but I put a * next to those that also provide reliability estimates when I omitted the reversed item. To interpret these reliability assessments, consider those above .65 okay, above .70 good, and above .80 excellent. A reliability level of .80 is unusual for scales completed by young children (grades 3-6) with subscales including only a few (4 or 5) items. So I think .65 to .75 is good for this scale with young children when the measure is administered in a group/classroom format.

Prior estimates of reliability from three samples: Coefficient alpha (α) for subscale (and subscale without the reversed item) among an ethnically diverse sample of 145 4th and 5th graders are presented first. Then, designated by the sign, †, are reliability estimates for a study with 213 Caucasian 4th through 6th grade youth. Designated by the sign, §, are reliability estimates for a study with 470 Latino 4th through 7th grade youth (with reversed items).

Neighborhood (α = .62)* († α = .70) (§ α = .69)

Parents (α = .62) († α = .74) (§ α = .73)

School (α = .72) († α = .82) (§ α = .75)

Peers (α = .66) († α = .69) (§ α = .62)

Reading (α = .73) († α = .83) (§ α = .82)

Friends (α = .65) († α = .72) (§ α = .57)

Self-in-the-Present (Self-esteem) (§ α = .66)

Self-management (α = .63) († α = .68) (§ α = .56; 5 items: .58)

Teachers (α = .75) († α = .71) (§ α = .79)

Siblings (α = .82) († α = .86) (§ α = .63)

*Note: If the reliability of the subscales does not reach .65 on the peer, school, teacher, and parent scales, discard the Self-Esteem subscale, and include each item in its respective scales (see below).

Child Hemingway (40-item version 4.0) SPSS syntax for recoding, estimating reliability, computing scales:

```
*Reverse items 9      14      19      22      24      26      33      34      38
RECODE
  hm4c1_9 hm4c1_14 hm4c1_19 hm4c1_22 hm4c1_24 hm4c1_26 hm4c1_33 hm4c1_34 hm4c1_38
  (1=4) (2=3) (3=2) (4=1) .
EXECUTE .
```

```
*Neighborhood      1      21      26R
TITLE "Hemingway Child Version 4 Reliability Estimate".
SUBTITLE Subscale Below Entitled: Connectedness to Neighborhood'.
RELIABILITY
  /VARIABLES=hm4c1_1 hm4c1_21 hm4c1_26
  /FORMAT=NOLABELS
  /SCALE(ALPHA)=ALL/MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE
  /SUMMARY=TOTAL .
```

```
*Parents          2      7      12
TITLE "Hemingway Child Version 4 Reliability Estimate".
SUBTITLE Subscale Below Entitled: Connectedness to Parents'.
RELIABILITY
  /VARIABLES=hm4c1_2 hm4c1_7 hm4c1_12
  /FORMAT=NOLABELS
  /SCALE(ALPHA)=ALL/MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE
  /SUMMARY=TOTAL .
```

```
*School           3      8      24R   32      36
TITLE "Hemingway Child Version 4 Reliability Estimate".
SUBTITLE Subscale Below Entitled: Connectedness to School'.
RELIABILITY
  /VARIABLES=hm4c1_3 hm4c1_8 hm4c1_24 hm4c1_32 hm4c1_36
  /FORMAT=NOLABELS
  /SCALE(ALPHA)=ALL/MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE
  /SUMMARY=TOTAL .
```

```
*Peers           4      9R      20   37 40
TITLE "Hemingway Child Version 4 Reliability Estimate".
SUBTITLE Subscale Below Entitled: Connectedness to Peers'.
RELIABILITY
  /VARIABLES=hm4c1_4 hm4c1_9 hm4c1_20 hm4c1_37 hm4c1_40
  /FORMAT=NOLABELS
  /SCALE(ALPHA)=ALL/MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE
  /SUMMARY=TOTAL .
```

```
*Reading          5      10      15      25
TITLE "Hemingway Child Version 4 Reliability Estimate".
SUBTITLE Subscale Below Entitled: Connectedness to Reading'.
RELIABILITY
  /VARIABLES=hm4c1_5 hm4c1_10 hm4c1_15 hm4c1_25
```

```

/FORMAT=NOLABELS
/SCALE(ALPHA)=ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL .

```

```

*Friends      6      16      30      34R
TITLE  "Hemingway Child Version 4 Reliability Estimate".
SUBTITLE Subscale Below Entitled:  Connectedness to Friends'.
RELIABILITY
/VARIABLES=hm4c1_6 hm4c1_16 hm4c1_30 hm4c1_34
/FORMAT=NOLABELS
/SCALE(ALPHA)=ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL .

```

```

*Self          11 (friends) 18 (school) 27 (family) 35 (family)
TITLE  "Hemingway Child Version 4 Reliability Estimate".
SUBTITLE Subscale Below Entitled:  Self in the Present'.
RELIABILITY
/VARIABLES=hm4c1_11 hm4c1_18 hm4c1_27 hm4c1_35
/FORMAT=NOLABELS
/SCALE(ALPHA)=ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL .

```

```

*Self-Manage 14R      19R      29      33R      38R
TITLE  "Hemingway Child Version 4 Reliability Estimate".
SUBTITLE Subscale Below Entitled:  Self-Management'.
RELIABILITY
/VARIABLES=hm4c1_14 hm4c1_19 hm4c1_29 hm4c1_33 hm4c1_38
/FORMAT=NOLABELS
/SCALE(ALPHA)=ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL .

```

```

*Teachers      13      23      28
TITLE  "Hemingway Child Version 4 Reliability Estimate".
SUBTITLE Subscale Below Entitled:  Connectedness to Teachers'.
RELIABILITY
/VARIABLES=hm4c1_13 hm4c1_23 hm4c1_28
/FORMAT=NOLABELS
/SCALE(ALPHA)=ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL .

```

```

*Siblings      17      22R      31
TITLE  "Hemingway Child Version 4 Reliability Estimate".
SUBTITLE Subscale Below Entitled:  Connectedness to Siblings'.
RELIABILITY
/VARIABLES=hm4c1_17 hm4c1_22 hm4c1_31
/FORMAT=NOLABELS
/SCALE(ALPHA)=ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL .

```

```

COMPUTE C1_Neigh = MEAN(hm4c1_1,hm4c1_21,hm4c1_26) .
VARIABLE LABELS C1_Neigh 'Conn. to Neighborhood' .
EXECUTE .
COMPUTE C1_Paren = MEAN(hm4c1_2,hm4c1_7,hm4c1_12) .
VARIABLE LABELS C1_Paren 'Conn. to Parents' .
EXECUTE .
COMPUTE C1_Schoo = MEAN(hm4c1_3,hm4c1_8,hm4c1_24,hm4c1_32,hm4c1_36) .
VARIABLE LABELS C1_Schoo 'Conn. to School' .
EXECUTE .
COMPUTE C1_Read = MEAN(hm4c1_5,hm4c1_10,hm4c1_15,hm4c1_25) .
VARIABLE LABELS C1_Read 'Conn. to Reading' .
EXECUTE .
COMPUTE C1_Teach = MEAN(hm4c1_13,hm4c1_23,hm4c1_28) .
VARIABLE LABELS C1_Teach 'Conn. to Teachers' .
EXECUTE .
COMPUTE C1_Peer = MEAN(hm4c1_4,hm4c1_9,hm4c1_37,hm4c1_40) .
VARIABLE LABELS C1_Peer 'Conn. to Peers' .
EXECUTE .
COMPUTE C1_Frien = MEAN(hm4c1_6,hm4c1_16,hm4c1_30,hm4c1_34) .
VARIABLE LABELS C1_Frien 'Conn. to Friends' .
EXECUTE .
COMPUTE C1_SelfP = MEAN(hm4c1_11,hm4c1_18,hm4c1_27,hm4c1_35) .
VARIABLE LABELS C1_SelfP 'Conn. to Self-Present' .
EXECUTE .
COMPUTE C1_Sibs = MEAN(hm4c1_17,hm4c1_22,hm4c1_31) .
VARIABLE LABELS C1_Sibs 'Conn. to Siblings' .
EXECUTE .
COMPUTE C1_SelfP = MEAN(hm4c1_14,hm4c1_19,hm4c1_29,hm4c1_33,,hm4c1_38) .
VARIABLE LABELS C1_SelfP 'Self-Management' .
EXECUTE .

```

Child Hemingway Syntax if leaving out Self-in-the-Present Scale and allotting those items to their respective scales—peers, school, parents, and teachers:

```
*Neighborhood      1      21      26      39
```

```

TITLE "Hemingway Child Version 4 Reliability Estimate".
SUBTITLE Subscale Below Entitled: Connectedness to Neighborhood'.
RELIABILITY
  /VARIABLES=hm4c1_1 hm4c1_21 hm4c1_26 hm4c1_39
  /FORMAT=NOLABELS
  /SCALE(ALPHA)=ALL/MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE
  /SUMMARY=TOTAL .

```

```
*Parents            2       7      12      35
```

```

TITLE "Hemingway Child Version 4 Reliability Estimate".
SUBTITLE Subscale Below Entitled: Connectedness to Parents'.
RELIABILITY
  /VARIABLES=hm4c1_2 hm4c1_7 hm4c1_12 hm4c1_35
  /FORMAT=NOLABELS
  /SCALE(ALPHA)=ALL/MODEL=ALPHA

```

```

/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL .

```

```

*School      3      8      18    24R      32      36

```

```

TITLE "Hemingway Child Version 4 Reliability Estimate".
SUBTITLE Subscale Below Entitled: Connectedness to School'.
RELIABILITY
/VARIABLES=hm4c1_3 hm4c1_8 hm4c1_24 hm4c1_32 hm4c1_36 hm4c1_18
/FORMAT=NOLABELS
/SCALE(ALPHA)=ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL .

```

```

*Peers      4      14      9R      37      40

```

```

TITLE "Hemingway Child Version 4 Reliability Estimate".
SUBTITLE Subscale Below Entitled: Connectedness to Peers'.
RELIABILITY
/VARIABLES=hm4c1_4 hm4c1_9 hm4c1_37 hm4c1_14 hm4c1_40
/FORMAT=NOLABELS
/SCALE(ALPHA)=ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL .

```

```

*Reading    5      10      15      25

```

```

TITLE "Hemingway Child Version 4 Reliability Estimate".
SUBTITLE Subscale Below Entitled: Connectedness to Reading'.
RELIABILITY
/VARIABLES=hm4c1_5 hm4c1_10 hm4c1_15 hm4c1_25
/FORMAT=NOLABELS
/SCALE(ALPHA)=ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL .

```

```

*Friends    6      11      16      30      34R

```

```

TITLE "Hemingway Child Version 4 Reliability Estimate".
SUBTITLE Subscale Below Entitled: Connectedness to Friends'.
RELIABILITY
/VARIABLES=hm4c1_6 hm4c1_16 hm4c1_30 hm4c1_34 hm4c1_11
/FORMAT=NOLABELS
/SCALE(ALPHA)=ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL .

```

```

*Siblings   17      22R      31

```

```

TITLE "Hemingway Child Version 4 Reliability Estimate".
SUBTITLE Subscale Below Entitled: Connectedness to Siblings'.
RELIABILITY
/VARIABLES=hm4c1_17 hm4c1_22 hm4c1_31

```

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/FORMAT=NOLABELS
/SCALE(ALPHA)=ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL .
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*Teachers 13 23 27 28

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TITLE "Hemingway Child Version 4 Reliability Estimate".
SUBTITLE Subscale Below Entitled: Connectedness to Teachers'.
RELIABILITY
/VARIABLES=hm4c1_13 hm4c1_23 hm4c1_28 hm4c1_27
/FORMAT=NOLABELS
/SCALE(ALPHA)=ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL .
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*Self-Management 14R 19R 29 33R 38R

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TITLE "Hemingway Child Version 4 Reliability Estimate".
SUBTITLE Subscale Below Entitled: Self-Management'.
RELIABILITY
/VARIABLES=hm4c1_14 hm4c1_19 hm4c1_29 hm4c1_33 hm4c1_38
/FORMAT=NOLABELS
/SCALE(ALPHA)=ALL/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL .
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