

Me and My World: Technical Manual

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I. DEVELOPMENT

From 1990 to the mid-1990s, Search Institute introduced and refined the framework of developmental assets for adolescents. In the mid-1990s, we began to conceptualize the developmental assets framework as it applies to younger children, from birth through the elementary school years, in part by conducting an initial review of the scientific literature on child development in those periods (Leffert, Benson, & Roehlkepartain, 1997). In the report on this work, *Starting Out Right: Developmental Assets for Children*, we concluded that the underlying constructs reflected by the adolescent developmental assets framework also seemed to be relevant for children younger than about 12 years of age (approximately 6th grade).

In 2000, Search Institute received a generous grant from the Donald W. Reynolds Foundation that enabled us to engage in extensive study of developmental assets present in the lives of pre-adolescent children. We conducted a more comprehensive literature search than we had done several years earlier, and undertook an elaborate consideration of the nature of developmental assets in childhood.

The support of the Donald W. Reynolds Foundation enabled Search Institute to develop both a book extensively discussing the developmental assets in middle childhood (Scales, Sesma, and Bolstrom, 2004a) and *Me and My World: A Search Institute Survey of Developmental Assets for Grades 4 Through 6* (MMW—Scales, Sesma, & Bolstrom, 2004b), the first survey for 4th-6th graders specifically focused on measuring developmental assets. Through *MMW*, 4th-6th graders can report on their experience of developmental assets that have been shown to contribute to lessened risky behavior and greater thriving and resilience in the face of challenge. The survey is conceptually based on the survey Search Institute has used for more than a decade to study the developmental assets of 6th-12th graders—the *Search Institute Profiles of Student Life: Attitude and Behavior* (A&B) survey—which has been administered to more than 2 million adolescents.

MMW assesses positive experiences that research shows are particularly important for the developmental well-being of upper-elementary children (Scales, Sesma, & Bolstrom, 2004a). The survey was piloted among 191 4th-5th graders in New Brighton, Minnesota, 402 4th-6th graders in Norman, Oklahoma, and 411 4th-6th graders in Oklahoma City, Oklahoma (in the latter two samples data cleaning removed a small number of surveys). The pilot tests suggested extensive revisions, which were incorporated into a new version that was field-tested in 2003 with nearly 1,300 4th-6th graders in California, Nevada, and

New York state. After field testing, several additional revisions were made to improve the survey.

Developmental Assets: Relation of Middle Childhood to Adolescent Frameworks

The developmental assets framework was originally developed primarily as a conceptual and communications tool, and secondarily as a framework to for measurement of positive developmental experiences in adolescence. As we developed the framework and measurements for middle childhood, we wanted to strike a more equal balance between those two purposes of research and public communication.

For two reasons, we decided to focus our initial survey development efforts for younger children on the period of middle childhood. First, the chronological proximity of that period to early and later adolescence suggested that there would be greater similarity in a valid developmental assets framework between middle childhood and adolescence, than between early childhood or the pre-school years and adolescence. That similarity would enable us to construct a survey that was maximally used as a foundation for the conceptual and operational definitions, and even some item wording, contained in the existing adolescent survey.

Second, we hoped to develop a survey that, like the adolescent survey, could be self-administered within a sufficiently brief time period that schools would not find it overly burdensome. The literature suggested that although surveys frequently are read out loud to children below middle school age, 4th and 5th graders routinely complete self-administered instruments investigating constructs similar to those included in this survey. Therefore, it was likely that we could express the questions in language comprehensible to 4th and 5th graders, and that they could successfully complete the instrument on their own. We concluded that it would be much more difficult to achieve adequate readability for self-administration by 3rd graders, and even more so for K-2nd graders.

In addition, we were concerned about the validity of self-reports by children in grades K-3 on many of the constructs. For example, it has been reported that younger children are more likely to provide extreme responses on Likert-type scales, especially to questions about subjective feelings, a bias that does not appear to be lessened by reducing the number of choices from which children must select responses (Chambers & Johnston, 2002). Although parents, teachers, or other caregivers might be useful supplemental respondents in studying assets among 4th and 5th graders, we concluded those other respondents would be practically essential for children in grades K-3. Those considerations made the process of developing a survey “for” students in grades K-3 a very different one than the process for 4th-5th graders. Taken together, these issues led us to focus the development of MMW on 4th and 5th graders.

Those preadolescents are, of course, not simply smaller versions of adolescents, but children who function in developmentally different worlds. We could not merely reword items from the *Search Institute Profiles of Student Life: Attitudes and Behaviors (A&B)* adolescent survey to make them more readable for younger children. Instead, we had to reconsider each developmental asset, thriving indicator, risk behavior, and developmental

deficit included on the adolescent survey in terms of its developmental appropriateness for younger children. We also had to identify constructs that were conceptually important and needed to be measured for younger children, but that were either not as conceptually critical for adolescents or were not currently measured on the adolescent survey. The effort to more sharply define conceptually valid interpretations of the developmental assets for younger children was intertwined with the effort to measure those constructs at generally accepted levels of internal consistency or alpha reliability (i.e., a coefficient suggesting that the items in a scale are measuring the same “thing”).

Characteristics of the *Me and My World* Survey

In fall 2000 we surveyed by telephone 100 school districts that had previously used the A&B survey. Our goal was to find out the general level of interest in an assets survey for the upper elementary grades, and what broad content school representatives thought should be included.

The results showed that there was an overwhelming interest in having a middle childhood survey that measured developmental assets. However, there also was a strong preference for the survey to be suitable for 6th graders as well as 4th and 5th so communities could have an option instead of giving the adolescent survey to their 6th graders. This desire fit with our survey experience over the last decade, in that school districts that are concerned with some of the risk behavior items, especially about sexual intercourse and contraception, tend to be most concerned about 6th graders having to respond to those items. In addition, on the A&B survey, 6th graders tend to omit survey items and fail to complete the survey in greater proportions than do older youth, suggesting either greater difficulty with the survey reading level, less ability to find the material relevant, or both. Many 6th graders really are more like 5th graders, both in terms of their reading comprehension for completing the adolescent survey, and in what school districts consider their developmental readiness for the content.

Search Institute’s middle childhood survey—*Me and My World: A Search Institute Survey of Developmental Assets for Grades 4 Through 6*—is written at a 4th-grade reading level and asks questions of 6th graders about issues that may be more relevant to them than are issues included in the adolescent survey. Thus, more 6th graders should complete the MMW survey, and the data for 6th graders may be more valid than comparable 6th grade data from the adolescent survey. (Students for whom the MMW survey reading level is difficult may have the questions read aloud to them. In pilot testing, only a very small proportion of students, less than 5%, required that alternative).

The drawback to making sure MMW was suitable for 6th graders was that Search Institute would eventually have two different datasets that included 6th graders, one set in which 6th graders took the *adolescent* survey and one in which they took the *middle childhood* survey. Although the surveys were intended to be very similar conceptually, they are different in how some of the variables are measured. Thus, the results of those two surveys, although both include 6th graders, are not directly comparable. In addition, they currently cannot be combined to present one picture of 6th graders in the aggregate (over

the next two years, we will study further the differences in 6th graders' responses to the adolescent and middle childhood assets surveys to determine if aggregating them is acceptable). On balance, however, because of the strong preference for 6th grade inclusion reflected in the market research, it was decided to construct the MMW survey to be suitable for 4th-6th graders.

In developing the middle childhood framework and survey, we also wanted to strengthen some measurement aspects of the asset framework. For example, in our *A&B* survey, a number of assets are measured with only one item, or if measured with multiple items, do not reach accepted reliability standards. In addition, none of the thriving indicators are measured by more than one item. Thus, one of our goals in constructing the framework and survey for upper elementary children was to more fully conceptualize both the assets and thriving indicators, and measure them with commensurate operational depth. Our hope was to strengthen the framework's content and construct validity, as well as improving the reliability of the measures.

MMW Items and Administration

We began our measurement strategy by creating three lists: 1) the 10 assets measured on the adolescent *A&B* at a .70 alpha reliability or better; 2) 29 assets retained in a factor analysis of the developmental assets (Furrow, Wagener, Leffert, & Benson, under review); and 3) domains identified through our extensive literature review (Scales, et al., 2004a) as conceptually among the most critical in middle childhood, especially those reflecting social and academic competence. We reworded adolescent *A&B* items for readability by younger children, created new items to establish multi-item measures for the developmentally most important constructs, and reviewed more than three-dozen instruments developed by other researchers, whose measures had alphas of .70 or above, to consider using those items in our survey.

We then linked the three basic lists, constructs that conceptually were thought to be the best in measuring aspects of academic and/or social competence, constructs that were already measured reliably, and those that had been retained in the factor analysis. The best constructs to keep in the middle childhood survey were those that appeared on all three lists, that is, were arguably strong at both the conceptual and empirical levels. We went through all of the constructs and items with that process. Ultimately, we developed a pool of about 300 items that were reasonable candidates to retain in this survey. The pilot- and field-testing led to a series of revised versions, culminating in the survey being made available for community use in January 2004.

The 165 items on MMW include 128 items measuring 40 developmental assets, 21 items measuring 7 thriving indicators, 6 items measuring 6 risk behaviors, and 3 items measuring 3 developmental deficits. Seven items measure various demographic variables such as age, grade, and parents' educational levels. Table 1 shows the constructs measured on the MMW survey and the definition of each. Table 2 displays the items that make up each asset, thriving indicator, risk behavior pattern, and deficit.

Table 1. MMW Constructs and Definitions

<i>EXTERNAL ASSETS</i>	
Support	
1. Family support	Family life provides high levels of love and support.
2. Positive family communication	Parent(s) and child communicate positively. Child feels comfortable seeking advice and counsel from parent(s).
3. Other adult relationships	Child receives support from adults other than her or his parent(s).
4. Caring neighborhood	Child experiences caring neighbors.
5. Caring school climate	Relationships with teachers and peers provide a caring, encouraging school environment.
6. Parent involvement in schooling	Parent(s) are actively involved in helping the child succeed in school.
Empowerment	
7. Community values children	Child feels valued and appreciated by adults in the community.
8. Children as resources	Child is included in decisions at home and in the community.
9. Service to others	Child has opportunities to help others in the community.
10. Safety	Child feels safe at home, at school, and in her or his neighborhood.
Boundaries and Expectations	
11. Family boundaries	Family has clear and consistent rules and consequences and monitors the child's whereabouts.
12. School boundaries	School provides clear rules and consequences.
13. Neighborhood boundaries	Neighbors take responsibility for monitoring the child's behavior.
14. Adult role models	Parent(s) and other adults in the child's family, as well as nonfamily adults, model positive, responsible behavior.
15. Positive peer influence	Child's closest friends model positive, responsible behavior.
16. High expectations	Parent(s) and teachers expect the child to do her or his best at school and in other activities.
Constructive Use of Time	
17. Creative activities	Child participates in music, art, drama, or creative writing two or more times per week.
18. Child programs	Child participates two or more times per week in cocurricular school activities or structured community programs for children.
19. Religious community	Child attends religious programs or services one or more times per week.
20. Time at home	Child spends some time most days both in high-quality interaction with parents(s) and doing things at home other than watching TV or playing video games.
<i>INTERNAL ASSETS</i>	
Commitment to Learning	
21. Achievement motivation	Child is motivated and strives to do well in school.
22. Learning engagement	Child is responsive, attentive, and actively engaged in learning at school and enjoys participating in learning activities outside of school.
23. Homework	Child usually hands in homework on time.
24. Bonding to adults at school	Child cares about teachers and other adults at school.
25. Reading for pleasure	Child enjoys and engages in reading for fun most days of the week.
Positive Values	
26. Caring	Parent(s) tell the child it is important to help other people.
27. Equality and social justice	Parent(s) tell the child it is important to speak up for equal rights for all people.
28. Integrity	Parent(s) tell the child it is important to stand up for one's beliefs.
29. Honesty	Parent(s) tell the child it is important to tell the truth.
30. Responsibility	Parent(s) tell the child it is important to accept personal responsibility for behavior.

31. Healthy lifestyle	Parent(s) tell the child it is important to have good health habits and an understanding of healthy sexuality.
Social Competencies	
32. Planning and decision making	Child thinks about decisions and is usually happy with the results of her or his decisions.
33. Interpersonal competence	Child cares about and is affected by other people's feelings, enjoys making friends, and, when frustrated or angry, tries to calm her- or himself.
34. Cultural competence	Child knows and is comfortable with people of different racial, ethnic, and cultural backgrounds and with her or his own cultural identity.
35. Resistance skills	Child can stay away from people who are likely to get her or him in trouble and is able to say no to doing wrong or dangerous things.
36. Peaceful conflict resolution	Child attempts to resolve conflict nonviolently.
Positive Identity	
37. Personal power	Child feels he or she has some influence over things that happen in her or his life.
38. Self-esteem	Child likes and is proud to be the person he or she is.
39. Sense of purpose	Child sometimes thinks about what life means and whether there is a purpose for her or his life.
40. Positive view of personal future	Child is optimistic about her or his personal future.
THRIVING INDICATORS	
School success	Child gets mostly "A's, or Outstanding/Excellent marks" or mostly "B's, or Good/Above average marks."
Helps others	Child helps friends, neighbors, or others on one or more days per week.
Values diversity	Child values having diverse friends and gets along well with people who are of a different race or culture than the child.
Delays gratification	Child can wait for a larger reward later, rather than needing to obtain a smaller reward immediately.
Coregulation	Child often helps parents make decisions about things the child cares about.
Coping	Child regularly uses active coping skills to deal with problems.
Life satisfaction	Child is satisfied with her or his life.
RISK BEHAVIOR PATTERNS	
Alcohol	Has used alcohol a few or more times during the last year.
Tobacco	Has smoked cigarettes a few or more times during the last year.
Marijuana	Has used marijuana a few or more times during the last year.
Antisocial behavior	Has damaged property just for fun a few or more times during the last year.
Physical Aggression/Violence	Has hit or beat someone up a few or more times during the last year.
Sadness	Has felt sad or depressed a few or more times during the last month.
DEFICITS	
Alone at home	Less than 1 hour per day of adult supervision after school.
TV overexposure	Watches TV or videos three or more hours per school day.
Victim of violence	Reports yes to "In the last year, has anyone hurt you by punching, hitting, slapping, or scratching you?"

Table 2. Item Mapping to Assets, Deficits, Risk Behavior Patterns, and Thriving Indicators

EXTERNAL ASSETS			
Support			
<u>Asset</u>	<u>Question #</u>	<u>Question</u>	
Family support	39.	I get along well with my parents.	
	40.	My parents give me help and support.	
	41.	My parents let me know in lots of ways that they love me.	
Positive family communication	42.	If I were really worried about something, I would talk to my parents about it.	
	43.	It's easy to talk with my parents, even about things we don't agree on.	
Other adult relationships		Other than your family, think about other adults you have known for a long time. These could be neighbors, teachers, coaches, parents of friends. How many of the adults you've known for a long time...	
	88.		
	89.	do you really like spending time with?	
	90.	do you get to talk with a lot? talk with you so you really get to know each other?	
Caring neighborhood	128.	Adults in my neighborhood care about me.	
	129.	Adults in my neighborhood know my name.	
Caring school climate			
	<u>Teachers</u>	96.	My teachers really care about me.
		98.	My teachers make me feel good about what I do at school.
		101.	My teachers tell me I can do things well.
<u>Peers</u>	97.		
	100.	The kids in my class are friendly to me. The kids in my class treat me with respect.	
Parent involvement in schooling		How often does one of your parents...?	
	71.	help you with your schoolwork?	
	72.	talk to you about what you are doing in school?	
	73.	ask you about homework?	
	74.	go to meetings or events at your school?	
	75.	talk with you about how doing well in school can help you in the future?	
Empowerment			
<u>Asset</u>	<u>Question #</u>	<u>Question</u>	

Community values children	130. 131. 134.	Adults in my neighborhood make me feel important. Adults in my neighborhood listen to me. My neighbors tell me if they see me do something good.
Children as resources	61. 110.	My parents let me help with family decisions. My teachers let me help with classroom decisions.
Service to others	136.	I go to clubs or groups that give me chances to help others (such as reading to younger children or cleaning up a park).
Safety	46. 112. 133.	Sometimes, I'm afraid that someone in my family might hurt me. I often skip school because I'm afraid of being hurt there. Sometimes I play inside because I am afraid that someone in my neighborhood might hurt me.
Boundaries and Expectations		
<u>Asset</u>	<u>Question #</u>	<u>Question</u>
Family boundaries	44.	44. My parents know what I am doing most of the time.
	67. 68. 69. 70.	My parents have rules about: which TV shows I watch. how late I stay up. what I can do with my friends. what I can do after school.
School boundaries	102.	If I break a rule at school, I will get in trouble.
Neighborhood boundaries	132. 135.	If kids were being loud and bothering people in my neighborhood, my neighbors would tell them to stop. If kids were teasing or bullying someone in my neighborhood, my neighbors would tell them to stop.
Adult role models		
<u>Parent role models/Other family adult role models</u>	45. 47. 48.	My parents spend of time helping other people. My parents try to do their best at whatever they do. My parents show me what is right and wrong.
		Think about the adults in your family other than you parents, like your grandparents, aunts or uncles.
		How much do you agree or disagree? Most of those other adults in my family . . .
	81. 82. 83.	spend a lot of time helping other people. show me what is right and wrong. teach me to respect people who are not the same race

	84.	or culture than you.
	85.	help me understand how to spend, share, and save money.
<u>Non-family adult role models</u>		help me with decisions you have to make.
		Other than in your family, think about adults you have known for a long time. These could be neighbors, teachers, coaches, parents of friends.
		How much do you agree or disagree? Most of the adults I've know for a long time. . .
	91.	
	92.	
	93.	spend a lot of time helping other people.
		show me what is right and wrong.
	94.	teach me to respect people who are not the same race or culture as me.
	95.	help me understand how to spend, share, and save money.
		help me with decisions I have to make.
Positive peer influence		Think of your good friends around your age, either in or outside of school. How many of these friends...
	117.	
	118.	have ever drunk alcohol (such as beer or wine), not including for religious ceremonies?
	119.	have ever used otherdrugs that are bad for them?
	120.	get good grades in school?
	121.	get into trouble at school?
	122.	care about what is right and wrong?
		show they respect you?
High expectations	49.	My parents expect me to be the best I can be.
	103.	My teachers expect me to be the best I can be.
Constructive Use of Time		
<u>Asset</u>	<u>Question #</u>	<u>Question</u>
Creative activities		During a normal week, how many times outside of school do you. . .
	145.	go to things outside of school like music, art, drama, dance, or writing programs?
Child Programs		During a normal week, how many times outside of school do you. . .
	146.	play on a sports team (or help with a team in some way)?
	147.	go to clubs or activities other than sports (like a computer club, chess club, 4-H, Scouts, or Boys and Girls Clubs)?

Religious community		During a normal week, how many times do you...
	148.	go to programs, activities, or services at a church, synagogue, temple, mosque, or other religious or spiritual place?
Time at home	139.	When I'm at home, I spend most of my free time playing video games or watching TV.
	144.	Most days during the week, I spend some of my free time doing things with my parents like working on a project, playing, or reading together.
INTERNAL ASSETS		
Commitment to Learning		
<u>Asset</u>	<u>Question #</u>	<u>Question</u>
Achievement expectations and motivation	104.	At school I try as hard as I can to do my best work.
	105.	It bothers me when I don't do something well at school.
	106.	One of my goals in class is to learn as much as I can.
	107.	It's important to me that I really understand my classwork.
	108.	I can do well in school if I want to.
Learning engagement		
<u>In school</u>	111.	I am interested in the things we study at school.
	113.	I look forward to going to school.
<u>Out of school</u>	140.	I like to learn by going to places like museums, zoos, libraries, or science centers.
	141.	I like learning new things, even if they're not what we're studying at school.
Homework	16.	I almost always turn in my homework on time.
Bonding to adults at school	99.	I like my teachers.
	109.	I like other adults at my school (such as the school nurse, librarian, principal).
Reading for pleasure	137.	I like reading things for fun.
	142.	Most days during the week, I read nonschool stuff just for fun (book, magazine, newspaper, or web pages).
Positive Values		
<u>Asset</u>	<u>Question #</u>	<u>Question</u>
Caring		My parents tell me it is important...
	50.	to help other people.
Equality and social justice		My parents tell me it is important...

Integrity	51.	to speak up for everyone having the same rights and chances in life.
		My parents tell me it is important...
Honesty	52.	to stand up for what I believe, even when others don't agree with me.
		My parents tell me it is important...
Responsibility	57.	to tell the truth, even when it is hard.
		My parents tell me it is important...
Healthy lifestyle	56.	to admit it when I make a mistake or get into trouble.
		My parents tell me it is important...
	53.	not to smoke cigarettes or use chewing tobacco.
	54.	not to use alcohol.
	55.	to always wear a helmet when I ride a bike.
	58.	to eat healthy foods like fruits and vegetables .
	60.	My parents tell me it is okay to ask them questions about the changes boys and girls go through as they grow up.

Social Competencies

<u>Asset</u>	<u>Question #</u>	<u>Question</u>
Planning and decision-making	8.	Most of the time, when I have a big job to do, I think about the things I need to do to get it done.
	31.	Most of the time, I think carefully about what to do before I decide things.
	32.	Most of the time, I feel happy about the results of the decisions I make.
	36.	Most of the time, when I make a decision, I think first about the good and bad things that can happen.
Interpersonal competence		
	<u>Empathy</u>	
	6.	I care about other people's feelings.
	14.	It makes me sad to see a girl or boy who can't find anyone to play with.
	33.	It makes me happy to see other people who are happy.
	124.	I feel really sad when one of my friends is unhappy.
<u>Affiliation</u>		
	9.	I am always friendly.
	10.	I always smile.
	123.	I am good at making and keeping friends.
	125.	I have friends at school.
	126.	I have friends to play with in my neighborhood.
	127.	My friends help me when I ask them to.
<u>Positive self-control</u>	11.	I can calm myself down pretty quickly when I get

	12.	mad.
	17.	I stop talking when adults tell me to stop. I usually stay pretty calm when things don't go my way.
Cultural competence		My parents tell me it is important ...
	59.	to be proud of my own cultural heritage.
	62.	to treat handicapped or disabled people the same way I treat everybody else.
	63.	to play with kids who are not the same race or culture as me.
	64.	to spend time with different kinds of people, not only people just like me.
	65.	to have some friends who are not the same race or culture as me.
	66.	to learn from people who are different from me.
Resistance skills	15.	I am able to say no when someone wants me to do things that are wrong or dangerous.
	29.	Most of the time, I am good at staying away from people who will get me in trouble.
Peaceful conflict resolution	149.	If someone at my school hit me or pushed me for no reason, the FIRST thing I'd do would be...
		hit or push them right back. try to hurt them worse than they hurt me. try to talk to this person and work out our problems. just ignore it and do nothing. talk to an adult.
Positive Identity		
<u>Asset</u>	<u>Question #</u>	<u>Question</u>
Personal power	21.	If I set a goal, I feel as if I can reach it.
	34.	I feel as if I can solve most problems in my life.
	35.	I am a confident person.
Self-esteem	18.	I am good at doing a lot of things.
	19.	I have special hobbies, skills, or talents.
	20.	Most of the time, I like myself.
	22.	Most of the time, I am glad to be me.
	23.	I feel that I do not have much to be proud of.
Sense of purpose	138.	I sometimes think about what my life means.
	143.	I sometimes wonder what my purpose is in life.
Positive view of the personal future	24.	I feel as if I will be happy and successful as I grow up.
	25.	I like thinking about what my future will be like.
	26.	I feel hopeful when I think about my future.
	27.	There are some adults in my life who talk to me about planning for my future.

<u>DEFICITS</u>		
<u>Deficit</u>	<u>Question #</u>	<u>Question</u>
Alone at home	164.	On a normal school day, how much time do you spend with any adults (parents, other family, teachers, neighbors, etc.) from when school ends until dinner?
TV overexposure	165.	On a normal school day, how many hours do you spend watching TV or videos or playing video games, counting before school, after school, and at night?
Victim of violence	163.	In the last year, has anyone hurt you by punching, hitting, slapping, or scratching you?
<u>RISK BEHAVIOR PATTERNS</u>		
<u>Risk Behavior Pattern</u>	<u>Question #</u>	<u>Question</u>
Alcohol	157.	During the last year, how many times have you had alcohol to drink (not including for religious ceremonies)?
Tobacco	158.	During the last year, how many times have you smoked cigarettes?
Marijuana	159.	During the last year, how many times have you used marijuana (grass, pot)?
Anti-social behavior	160.	During the last year, how many times have you damaged property just for fun (such as breaking windows, scratching a car, spraying paint on buildings or sidewalks, etc.)?
Physical aggression/Violence	161.	During the last year, how many times have you hit or beat up someone?
Sadness	162.	How often did you feel really sad or depressed during the last month?
<u>THRIVING INDICATORS</u>		
<u>Thriving Indicator</u>	<u>Question #</u>	<u>Question</u>
School success	114.	How well do you do in Math?
	115.	How well do you do in Reading and Writing, Language Arts, or English?
	116.	How well do you do in the rest of your classes other than Math and English?
Helps others	150.	How many days a week do you spend some time helping family members or friends?
	151.	How many days a week do you spend some time helping neighbors?
	152.	How many days a week do you spend some time helping other people at your school, church,

		synagogue, mosque, or temple, or some other place?
Values diversity	7.	I get along well with people who aren't the same race or culture as me.
	13.	Kids can be my friends no matter what race or culture they are.
Delays gratification	28.	I am able to save my money for something I really want.
	30.	It's easy for me to wait for something I want.
Coregulation		In your family, how much do you get to HELP DECIDE these things:
	76.	What you can watch on TV?
	77.	What clothes you wear to school?
	78.	Where you spend your time after school?
	79.	What music you can buy or listen to?
	80.	What your bedtime is on weekends?
Coping		How much do you do each of the following things when you have any kind of a problem?
	153.	I discuss the problem with my parents or other adults.
	154.	I try to find different solutions to the problem.
	155.	I look for information to help me in magazines or books or on the Internet.
	156.	I ask my friends for help solving the problem.
Life satisfaction		How often do you feel the following things?
	37.	My life is just right.
	38.	I have a good life.

Fourteen percent (23 of 165) of the items were taken from or modified from other researchers' measures, with their permission. **Table 3** displays the items, the assets to which they contributed, and reference information for those "borrowed" items.

Table 3. Survey Items Used with Permission From Other Researchers

Caring school climate

98. "My teachers make me feel good about what I do at school."
(**Modified from Teacher Responsiveness Scale**)

Authors/Copyright Holders

Sharon E. Paulson, Ph.D.-Ball State University
Gregory J. Marchant, Ph.D.- Ball State University
Barbara A. Rothlisberg, Ph.D.- Ball State University

Citation

Paulson, S.E., Marchant, G.J., & Rothlisberg, B.A. (1998). Early adolescents' perceptions of patterns of parenting, teaching, and school atmosphere. *Journal of Early Adolescence, 18*, 5-26.

Parent involvement in schooling

"How often does one of your parents...

72. talk with you about how doing well in school can help you in the future?"
(**Bowen & Bowen Home Academic Culture Scale, School Success Profile**)

Authors

Gregory L. Bowen, Ph.D- The University of North Carolina at Chapel Hill
Natasha K. Bowen, Ph.D.- The University of North Carolina at Chapel Hill

Citation

Bowen, G.L., Richman, J.L., Brewster, A., & Bowen, N. (1998). Sense of school coherence, perceptions of danger at school, and teacher support among youth at risk of school failure. *Child and Adolescent Social Work Journal, 15*, 273-286

Bowen & Bowen. (1998). The mediating role of educational meaning in the relationship between home academic culture and academic performance. *Family Relations: Interdisciplinary Journal of Applied Family Studies, 47*, 45-51.

Achievement motivation

106. "One of my goals in class is to learn as much as I can."
107. "It is important to me that I really understand my class work."
(**Midgley Mastery Goal Orientation Scale**)

Authors

Carol Midgley, Ph.D.- University of Michigan

Citation

Midgley, C., Maehr, M.L., Hruda, L.Z., Anderman, E., Anderman, L., Freeman, K.E., Gheen, M., Kaplan, A., Kumar, R., Middleton, M.J., Nelson, J., Roeser, & Urdan, T. (2000). *Manual for the Patterns of Adaptive Learning Scales(PALS)*. Ann Arbor, MI: University of Michigan.

108. “I can do well in school if I want to.”
(**Rochester Assessment Package for Schools- Control Beliefs Scale**)

Authors

James Wellborn, Ph.D.
James Connell, Ph.D.
Ellen Skinner, Ph.D.

Citation

Wellborn, J.G., Connell, J.P., & Skinner, E.A. (1989). *The Student Perceptions of Control Questionnaire*. Rochester, NY: University of Rochester.

Learning engagement

113. “I look forward to going to school.”
(**Bowen & Bowen Educational Meaning Scale**)

Authors

Gregory L. Bowen, Ph.D.- The University of North Carolina at Chapel Hill
Natasha K. Bowen, Ph.D.- The University of North Carolina at Chapel Hill

Citation

Bowen, G.L., Richman, J.L., Brewster, A., & Bowen, N. (1998). Sense of school coherence, perceptions of danger at school, and teacher support among youth at risk of school failure. *Child and Adolescent Social Work Journal*, 15, 273-286

Bowen & Bowen. (1998). The mediating role of educational meaning in the relationship between home academic culture and academic performance. *Family Relations: Interdisciplinary Journal of Applied Family Studies*, 47, 45-51.

Bonding to adults at school

99. “I like my teachers.”
(**Oetting & Beauvais School Liking Scale**)

Authors

Fred Beauvais, Ph.D.- Colorado State University
Ruth Edwards, Ph.D.- Colorado State University
Eugene Oetting, Ph.D.- Colorado State University

Citation

Edwards, R., Beauvais, F., & Oetting, E.R. (1987). *The American Drug and Alcohol Survey: Children's Form*. Ft. Collins, CO: Rocky Mountain Behavioral Science Institute, Inc.

Oetting & Beauvais (1990). Adolescent drug use: Findings of national and local surveys. *Journal of Consulting & Clinical Psychology*, 58, 385-394.

Interpersonal competence

14. "It makes me sad to see a girl or boy who can't find anyone to play with."
(Modified from Bryant Empathy Index)

Authors

Brenda Bryant, Ph.D.- University of California at Davis

Citation

Bryant, B. (1982). An index of empathy for children and adolescents. *Child Development*, 53, 413-425.

9. "I am always friendly."
10. "I always smile."
(Cairns Affiliative Subscale of Interpersonal Competence Scale)

Authors

Robert Cairns, Ph. D.
(permission of Beverly Cairn, Ph.D.- University of North Carolina at Chapel Hill)

Citation

Cairns, R.B., Leung, M., Gest, S.D., Cairns, B.D. (1995) A brief method for assessing social development: Structure, reliability, stability, and developmental validity of the interpersonal competence scale. *Behaviour Research & Therapy*, 33, 725-736

125. "I have friends at school."
126. "I have friends to play with in my neighborhood."
(Modified from Cassidy & Asher Loneliness & Social Dissatisfaction Scale)

Authors

Jude Cassidy, Ph.D.- University of Maryland
Steven Asher, Ph.D.- Duke University

Citation

Cassidy, J., & Asher, S.R. (1992). Loneliness and peer relations in young children. *Child Development*, 63, 350-365.

Coregulation

- "In your family, how much do you help to get decide these things..."
76. "what you can watch on TV?"
77. "what clothes you wear to school."
78. "where you spend your time after school."
79. "what music you can buy or listen to."
80. "what your bedtime is on weekends."
(Stem and all items modified from Steinberg Decision Making Questionnaire)

Authors

Laurence Steinberg, Ph.D.- Temple University

Citation

Steinberg, L., Elman, J., & Mounts, N. (1989). Authoritative parenting, psychological maturity, and academic success among adolescents. *Child Development, 60*, 1424-1436.

Coping

“How much do you do each of the following things when you have any kind of a problem?”

- 153. “I discuss the problem with my parents or other adults.”
- 154. “I try to find different solutions to the problem.”
- 155. “I look for information to help me in magazines, books, or on the Internet.”
- 156. “I ask my friends for help solving the problem.”

(Shulman Active Coping Scale)

Authors

Shmuel Shulman, Ph.D.- Bar-Ilan University

Inge Seiffge-Krenke, Ph.D.- Bar-Ilan University

Citation

Shulman, S., Seiffge-Krenke, I., & Samet, N. (1987). Adolescent coping style as a function of perceived family climate. *Journal of Adolescent Research, 2*, 367-381.

Life Satisfaction

“How often do you feel the following things?”

- 37. “my life is just right.”
- 38. “I have a good life.”

(Huebner Multidimensional Student Life Satisfaction Scale)

Author

Scott Huebner, Ph.D.- University of South Carolina

Citation

Huebner, E.S. (1991). Preliminary development and validation of a multidimensional life satisfaction scale for children. *Psychological Assessment, 6*, 149-158.

Reading Level

Since it was designed for use by younger children, MMW has a 4th grade reading level (Flesch Grade Level of 4.4, as determined by Readability Plus (Readability Formula Set 1 by Micro Power and Light Co.). Search Institute also conducted focus groups with students in an earlier pilot test to determine which items were confusing or difficult to read.

Administration Time

Measuring more constructs at acceptable levels of reliability meant including more items on average per construct than was done for the adolescent survey. Thus, the survey is

designed to be done in a class period of anywhere from 45-60 minutes. However, it is not a timed test and so it should be placed in the school day at a time when there is flexibility to allow for different students to complete it at different rates.

In addition, given the younger age and shorter attention span of 4th-6th graders compared with 6th-12th graders, districts should consider administering MMW as was done in the pilot and field tests, in two parts, with a brief 10-15 minute snack and free time break incorporated. Across the pilot and field test studies, while there was great variability among completion times for individual students, total class completion times for each part ranged from 20-40 minutes. Total time to administer the survey in this two-part format then (i.e., instructions, two parts, and a break in-between), ranged from 60- 90 minutes.

The A&B survey has been taken by more than 2 million students in more than 2,000 communities. It has given a powerful voice to teenagers by allowing them to report on how they view their relationships with adults, their communities, and their own competencies and skills. This information has then been used to help reshape and rebuild communities to better promote positive youth development. Our goal for *MMW* is similar: To provide a voice for younger students to describe the positive experiences in their lives so that they and adults can work together to create more developmentally attentive communities for all children.

II. RELIABILITY AND VALIDITY

Reliability of MMW Constructs

The majority of the developmental assets are measured in MMW with acceptable internal consistency reliability. However, as in all surveys, some of the variables on the *MMW* survey are not measured with as much statistical reliability as are other constructs, and so results on those variables must be treated with greater caution. Cronbach's alpha internal consistency was used to assess whether the items of any particular scale are actually measuring the same thing. The alpha addresses the question of whether the items used to measure that variable are substantially related to each other and in a consistent, dependable way. Alpha levels of .70-.90s are considered acceptable to excellent for social science research. Alphas in the .60s are not normally considered adequate for all research purposes, but may be adequate for most. For example, Salvia and Ysseldyke (1991) recommend that, for reporting on groups of respondents, as is the intended use of MMW, a reliability of .60 "should probably be the minimum" (p. 142). Moreover, alphas in the .60s may be considered more acceptable among younger children, whose responses should not be expected to be as consistent as the responses of adolescents.

Some constructs have internal consistency reliabilities below .60, but that does not necessarily mean the measures are inadequate. It may be that the items should not be expected to "hang together." An example is the *child programs* asset in the Constructive Use of Time category. This asset is measured by two questions, one of which measures participation in sports teams and the other which measures participation in other non-sports activity programs such as a computer club or Scouting. Variations in personal interests may mean that a student is adequately occupied in constructive activities, at a level sufficient to "have" an asset, but has no time for both a heavy involvement in sports and an equally time consuming involvement in other organized non-sports activities.

Eleven of the 40 assets are measured by single items, so alpha reliability does not apply. Of the remaining 29 assets comprised of multiple items, 2 were added after field-testing, so no data are available. Of the 27 multiple-item assets for which field test data are available, Table 4 shows that 21 or 78% had alpha reliabilities of .60 or above in at least two of the three field tests: 13 or 48% had reliabilities of .70 or above in at least two of the three field tests, and another 8 (30%) had reliabilities in the .60s in at least two of the three sites. Six of the multi-item assets (22% of those for which there are field test data) had reliabilities below .60 in two or three of the three sites. At least three of these assets attempt to measure children's experience of the asset in multiple contexts, a breadth that, although ideal, may not be developmentally necessary for all children or possible simply because of individual interests (e.g., *safety*, *child programs*, and *children as resources*). All the deficits and risk behavior patterns are measured with just one item each, and so alpha reliability does not apply. Six of the seven thriving indicators measured with multiple items (86%) have alpha reliabilities in the .60s or above in at least two of the three sites. Only coregulation does not meet this threshold level.

Table 4. Alpha Reliability of Me and My World Constructs

	Nevada	California	New York	ALL
	<u>N</u> = 241	<u>N</u> = 474	<u>N</u> = 579	<u>N</u> = 1294
	α	α	α	α
Developmental Assets				
1. Family support	.71	.78	.73	.75
Male	.58	.77	.74	.73
Female	.80	.80	.73	.77
2. Positive family communication	.63	.74	.74	.72
Male	.66	.69	.70	.69
Female	.59	.78	.77	.75
3. Other adult relationships	.72	.74	.74	.74
Male	.72	.79	.72	.75
Female	.72	.69	.75	.73
4. Caring neighborhood	.75	.69	.68	.71
Male	.70	.67	.68	.69
Female	.79	.72	.69	.73
5. Caring school climate	.82	.82	.77	.80
Male	.81	.82	.76	.80
Female	.79	.82	.78	.80
6. Parent involvement in schooling	.74	.76	.69	.74
Male	.75	.77	.64	.72
Female	.74	.78	.73	.76
7. Community values children	.84	.83	.82	.83
Male	.81	.82	.82	.82
Female	.87	.83	.83	.84
8. Children as resources	.29	.40	.34	.36
Male	.15	.41	.31	.33
Female	.37	.36	.36	.37
9. Service to others (†)	NA	NA	NA	NA
10. Safety	.36	.37	.23	.34
Male	.41	.39	.30	.38
Female	.33	.40	.23	.34
11. Family boundaries	.72	.72	.74	.72
Male	.74	.74	.75	.74
Female	.68	.70	.73	.71

	Nevada <u>N</u> = 241	California <u>N</u> = 474	New York <u>N</u> = 579	ALL <u>N</u> = 1294
	α	α	α	α
12. School boundaries (†)	NA	NA	NA	NA
13. Neighborhood boundaries	.66	.72	.67	.69
Male	.69	.71	.66	.69
Female	.63	.75	.69	.70
14. Adult role models	.88	.87	.88	.87
Male	.88	.87	.89	.88
Female	.87	.87	.87	.87
15. Positive peer influence	.62	.64	.58	.62
Male	.57	.61	.48	.58
Female	.58	.65	.61	.62
16. High expectations	.47	.63	.53	.56
Male	.39	.57	.60	.54
Female	.35	.66	.47	.58
17. Creative activities (†)	NA	NA	NA	NA
18. Child programs	.34	.40	.24	.34
Male	.25	.43	.15	.34
Female	.44	.38	.32	.38
19. Religious community (†)	NA	NA	NA	NA
20. Time at home				
21. Achievement motivation	.76	.76	.74	.75
Male	.73	.75	.81	.77
Female	.77	.76	.85	.72
22. Learning engagement	.84	.77	.75	.78
Male	.86	.78	.76	.79
Female	.84	.75	.76	.77
23. Homework (†)				
24. Bonding to adults in school	.50	.65	.68	.63
Male	.47	.60	.67	.61
Female	.47	.70	.67	.65
25. Reading for pleasure	.58	.58	.60	.59
Male	.56	.60	.67	.62
Female	.58	.50	.53	.53
26. Caring (†)	NA	NA	NA	NA
27. Equality and social justice (†)	NA	NA	NA	NA
28. Integrity (†)	NA	NA	NA	NA
29. Honesty (†)	NA	NA	NA	NA
30. Responsibility (†)	NA	NA	NA	NA

	Nevada <u>N</u> = 241	California <u>N</u> = 474	New York <u>N</u> = 579	ALL <u>N</u> = 1294
	α	α	α	α
31. Healthy lifestyle	.64	.72	.57	.68
Male	.64	.75	.56	.69
Female	.71	.67	.51	.64
32. Planning and decision making	.73	.65	.67	.67
Male	.74	.66	.72	.70
Female	.71	.64	.62	.64
33. Interpersonal competence	.83	.77	.81	.80
Male	.82	.74	.83	.79
Female	.82	.79	.76	.78
34. Cultural competence	.83	.79	.84	.82
Male	.82	.79	.87	.83
Female	.83	.79	.81	.80
35. Resistance skills	.55	.46	.44	.48
Male	.72	.43	.52	.53
Female	.26	.45	.26	.35
36. Peaceful conflict resolution (†)	NA	NA	NA	NA
37. Personal power	.60	.55	.64	.60
Male	.58	.59	.62	.59
Female	.63	.50	.66	.60
38. Self-esteem	.72	.60	.71	.68
Male	.75	.62	.69	.68
Female	.67	.57	.73	.67
39. Sense of purpose				
40. Positive view of personal future	.65	.63	.63	.62
Male	.57	.54	.70	.62
Female	.71	.67	.55	.63
Thriving Indicators				
1. School success	.78	.73	.62	.71
Male	.81	.71	.58	.70
Female	.72	.76	.69	.73
2. Helps others	.69	.66	.69	.68
Male	.76	.71	.73	.73
Female	.63	.61	.67	.64
3. Values diversity	.76	.69	.61	.67
Male	.80	.68	.69	.71
Female	.72	.71	.54	.64

	Nevada <u>N</u> = 241	California <u>N</u> = 474	New York <u>N</u> = 579	ALL <u>N</u> = 1294
	α	α	α	α
4. Delays gratification	NA	NA	NA	NA
5. Coregulation	.58	.62	.57	.60
Male	.58	.62	.55	.59
Female	.59	.60	.60	.61
6. Coping skills	.66	.65	.52	.60
Male	.71	.70	.59	.66
Female	.61	.59	.47	.54
7. Life satisfaction	.73	.72	.71	.71
Male	.74	.73	.67	.71
Female	.72	.71	.72	.72
Risk Behavior Patterns				
1. Alcohol use (†)	NA	NA	NA	NA
2. Tobacco use (†)	NA	NA	NA	NA
3. Marijuana use (†)	NA	NA	NA	NA
4. Anti-social behavior (†)	NA	NA	NA	NA
5. Physical Aggression/Violence (†)	NA	NA	NA	NA
6. Sadness (†)	NA	NA	NA	NA
Developmental Deficits				
1. Alone at home (†)	NA	NA	NA	NA
2. Too much TV (†)	NA	NA	NA	NA
3. Victim of violence (†)	NA	NA	NA	NA

Note. †One item scale. Time at home, homework, and sense of purpose assets added after field-tests—no data available. Alpha reliability was not computed for delays gratification because construct included one item during field tests. Delays gratification includes two items on final survey.

Test-retest reliability for California

Table 5 shows the results of the test-retest done with 382 4th-6th graders in the California field-test site. 10 of the 37 assets (27%) had test-retest correlation coefficients of .60 or above, and another 14 (38%) had test-retest coefficients in the .50s. These test-retest correlations are less than desirable in samples of adolescents, but may not be surprising in samples of elementary children, whose less-developed self-observation and reflection skills would be expected to yield more variable reporting on repeated measures.

We examined a number of different possible explanations for these results. For example, we removed the “not sure” responses, and some correlations did increase, but not significantly. We also identified 44 cases, or 3% of the total field test sample, in which

students completely reversed their responses one week later on 19 or more of the 40 assets (i.e., a strongly agree one week and a strongly disagree the next). Although removing these did change the correlations, the number of students involved was too small to make a significant difference.

We also looked at the stability of the responses in two other ways. For single item constructs we combined the percentage of exact matches between Time 1 and Time 2 one week later and the percentage of responses that were only one response option different (e.g., a strongly agree at Time 1 and an agree at Time 2). For nineteen of the 20 single-item measures, Time 1 responses were either exactly matched or within one response option greater than 70 percent of the time (**Table 5**). Similarly, using the coding scheme for determining whether a student “has” or “does not have” each asset, risk behavior, or thriving behavior (53 constructs total), we calculated the percentage of students with the same classification (e.g., did not have the asset at either Time 1 or Time 2) across both time points. Using this convention, 47 of the 53 had a 70 percent or greater match between administrations (**Table 5**). The instability in the responses appeared to come largely from students who did not have the asset at Time 1, and then reported having it at Time 2. Students who had an asset at Time 1 tended to be quite stable, on most assets resulting in a 90+% correspondence between their having the asset at Time 1 and having it at Time 2.

Table 5. One-week Test-retest Reliability, Percentage Who Have Asset Time 1 and Time 2, and Percentage Exact Response Time 1 & Time 2 and One-off Response Time 1 & Time 2 for Single-item Measures

	One-item measures only				
	One-week Test-retest* (n = 382)	'Have' and 'Not Have' Match T1 & T2 (%)	Exact Response Match T1 & T2 (%)	One Off Response T1& T2 (%)	Total- Exact & One-off Response T1 & T2 (%)
DEVELOPMENTAL ASSETS					
1. Family support	.55	89			
2. Positive family communication	.55	78			
3. Other adult relationships	.53	72			
4. Caring neighborhood	.60	73			
5. Caring school climate	.63	78			
6. Parent involvement in schooling	.46	70			
7. Community values children	.61	75			
8. Children as resources	.53	68			
9. Service to others (†)	.34	70	44	32	76
10. Safety	.47	68			
11. Family boundaries	.59	72			
12. School boundaries (†)	.34	87	62	28	90
13. Neighborhood boundaries	.43	69			
14. Adult role models	.69	74			
15. Positive peer influence	.59	85			
16. High expectations	.56	88			
17. Creative activities (†)	.42	72	55	31	86

			One-item measures only		
	One-week Test-retest* (n = 382)	'Have' and 'Not Have' Match T1 & T2 (%)	Exact Response Match T1 & T2 (%)	One Off Response T1& T2 (%)	Total- Exact & One-off Response T1 & T2 (%)
18. Child programs	.48	71			
19. Religious community (†)	.48	73	59	28	87
20. Time at home	ADDED AFTER FIELD TESTS				
21. Achievement motivation	.56	81			
22. Learning engagement	.65	77			
23. Homework	ADDED AFTER FIELD TESTS				
24. Bonding to adults in school	.69	86			
25. Reading for pleasure	.59	73			
26. Caring (†)	.53	85	64	30	94
27. Equality and social justice (†)	.51	76	53	34	87
28. Integrity(†)	.28	81	56	33	89
29. Honesty (†)	.30	85	61	31	92
30. Responsibility (†)	.30	84	55	33	88
31. Healthy lifestyle	.53	84			
32. Planning and decision making	.62	73			
33. Interpersonal competence	.74	77			
34. Cultural competence	.59	80			
35. Resistance skills	.47	84			
36. Peaceful conflict resolution (†)	.72	88	73	.08	73
37. Personal power	.56	71			
38. Self-esteem	.62	74			
39. Sense of purpose	ADDED AFTER FIELD TESTS				
40. Positive view of personal future	.48	68			
THRIVING INDICATORS					
1. School success	.77	86			
2. Helps others	.63	79			
3. Values diversity	.45	88			
4. Delays gratification (†)	.51	83	59	32	91
5. Coregulation	.47	77			
6. Coping skills	.46	66			
7. Life satisfaction	.61	87			
RISK BEHAVIOR PATTERNS					
1. Alcohol use (†)	.63	89	82	.08	82
2. Tobacco use (†)	.55	98	93	.04	93
3. Marijuana use (†)	.33	97	92	.03	92
4. Anti-social behavior (†)	.56	96	87	.06	87
5. Physical Aggression/Violence (†)	.50	84	67	.14	67
6. Sadness (†)	.48	72	45	33	79
DEVELOPMENTAL DEFICITS					
1. Alone at home (†)	.41	69	42	28	70
2. Too much TV (†)	.48	73	52	24	76
3. Victim of violence (†)	.47	72	60	28	88

Note: * Correlations significant at 0.01 level. † Single-item measure.

All of these perspectives help in understanding the stability data, but at this stage of the development and use of MMW, the test-retest results should be viewed cautiously. It was possible to conduct a test-retest procedure in only one field test site, and this site happened to be the one with the poorest students, with a higher proportion of "not sure" responses or missing data, and with the least favorable asset profile. So in many ways the existing test-retest results may represent the bottom, but not the top end of what kind of test-retest results might result from a demographically different sample. Search Institute anticipates exploring that possibility with additional test-retest studies in the future.

Validity

Construct Validity: Results of Factor Analysis

The 40 assets were subjected to a principal components analysis, using varimax rotation with Kaiser normalization. An 8-factor solution explained 59% of the variance. All assets with factor loadings of .30 or above were allowed to remain in the solution. **Table 6** displays the results of this factor analysis.

Table 6. MMW Empirically-Derived Factors

Factor Name	Assets Comprising Asset Category (largest to smallest factor loading)	Factor Reflected	Reliability
Positive values	Responsibility; honesty; healthy lifestyle; integrity; resistance skills; family boundaries; family support; positive peer influence	Positive Values, Social Competencies, Boundaries and Expectations, Support	.78
Adherence to social norms of responsibility	Reading for pleasure; planning and decision making; interpersonal competence; learning engagement; peaceful conflict resolution; service to others	Social Competencies, Commitment to Learning, Empowerment	.73
Positive identity	Self esteem; personal power; positive view of future	Positive Identity	.74
Positive relationships with adults	Adult role models; cultural competence; equality and social justice; other adult relationships; caring; parent involvement in schooling; children as resources	Support, Social Competencies, Positive Values, Empowerment,	.78

Factor Name	Assets Comprising Asset Category (largest to smallest factor loading)	Factor Reflected	Reliability
Connection to school	Caring school climate; high expectations; school boundaries; bonding to school adults; achievement motivation; positive family communication	Commitment to Learning , Boundaries and Expectations, Support	.77
Connection to neighborhood	Neighborhood support; community values children; neighborhood boundaries	Support, Empowerment, Boundaries and Expectations	.80
Involvement in community activities	Religious community; child programs; creative activities	Constructive Use of Time	.44
Safety	Safety	Empowerment	NA

Note: Time at home, homework, and sense of purpose assets added after field-tests—no data available. Reliability could not be computed for the safety construct because it is a single item measure.

This analysis suggests partial support for the “a priori” asset category framework that was originally developed primarily for communication purposes. The asset categories of Positive Identity, and Constructive Use-of-Time retain their integrity well in the empirically-derived factor structure, with Positive Values also quite well reflected.

Commitment-to-Learning retains reasonable integrity, appearing in just two of the eight factors, with most of the assets clustering in one factor, and although Social Competencies’ assets appear in three factors, most cluster in just one factor.

The Boundaries and Expectations assets, however, occur in three factors, and the Support and Empowerment assets are the most dispersed, loading in four of the factors.

That the eight a priori categories are not all yielded neatly in these factor analysis results does not suggest the a priori framework is “wrong.” Rather, the results suggest that the way the assets are measured on the MMW, support, empowerment, and boundaries and expectations issues particularly cut across a broad range of developmental processes and are not characteristic of only one “sector” or context. These “across context” developmental processes include adherence to social norms of responsibility, development of positive relationships with adults in and outside the family, and establishing connections to one’s school, neighborhood, and community.

Concurrent Validity: Relation to Previous Measures

It was not possible in the one or two class periods allotted to MMW administration during the field tests to investigate the validity of each of the dozens of asset and thriving constructs in the MMW. Thus, we studied seven assets or elements of those assets, and

one thriving indicator, to partially assess the validity of the MMW measures. This group of constructs was selected to broadly cover the asset categories, internal and external assets, and a number of contexts (e.g., school, family), and to include measures we believed to be relatively stronger and weaker compared to other MMW measures. Comparison measures used in other researchers' studies that appeared to have acceptable reliability and evidence of validity were selected, and administered to field test students at the same time as the MMW. **Table 7** shows the validation measures and the assets they were most closely aligned with:

- Caring school climate—peers (an element of the caring school climate asset)
- Service to others
- Family boundaries
- Learning engagement
- Healthy lifestyle
- Empathy (an element of the interpersonal competence asset)
- Positive view of the future, and
- The thriving indicator of “helps others.”

Table 7. Concurrent Validity Results for MMW: Field-Test Correlations with Comparison Survey Measures

Comparison Survey Construct	MMW Construct	Nevada N = 248	California N = 463	New York N = 496
Classroom Supportiveness Subscale (Roberts, et al., 1995)	Caring School Climate-Peers Component	.52**	.55**	.51**
Social Commitment Subscale (Greenberger, et al., 1975)	Service to Others	.08	.02	.19**
Parental Monitoring Scale (Small, 2001)	Family Boundaries	.49**	.30**	.38**
Ongoing Engagement Subdomain (Institute for Research and Reform in Education, 1998)	Learning Engagement	.54** (.69**)	.37** (.53**)	.45** (.54**)
School Motivation Scale (Ford & Tisak, 1982, April)	Learning Engagement	.74** (.69**)	.68** (.53**)	.70** (.54**)
TAP Healthy Lifestyle	Healthy Lifestyle	.49**	.34**	.27**

Comparison Survey Construct	MMW Construct	Nevada N = 248	California N = 463	New York N = 496
(Small & Rodgers, 1995).		(-.42**)	(-.15**)	(-.16**)
Markey Risk Behavior Assessment (Markey, et al., 2001)	Healthy Lifestyle	-.42** (-.42**)	-.17** (-.15**)	-.17** (-.16**)
Eisenberg Sympathy Scale (Spinard, et al., 1999)	Empathy Component	.59**	.50**	.44**
Future Expectations Scale (Wyman, et al., 1993)	Positive View of Personal Future	.48** (.67**)	.40** (.51**)	.42** (.59**)
Your Future (Lerner et al., manuscript in preparation)	Positive View of Personal Future	.40** (.67**)	.36** (.51**)	.41** (.59**)
Altruistic Behavior Scale (Battistich, et al., 1995. Adapted from Rushton, et al., 1981)	Helps others	.51**	.45**	.43**

Note. ** Correlation is significant at the 0.01 level. () indicates correlation for scales within comparison survey measuring the same construct.

Most of the comparison measures had acceptable reliabilities in the field test samples, but two measures designed to serve as validation measures for the healthy lifestyle asset did not. Table 6 shows that, of the 33 correlations conducted between the comparison measures and the MMW measures across the three field tests, all but two (94%) were statistically significant ($p \leq .01$) and most indicated a moderate level of association: 23 of the 33 correlations (70%) were in the .40 to .74 range.

In addition, all the correlations were in the direction predicted by developmental assets theory, that higher levels of the assets would be associated with higher levels of the comparison measures. The scoring of one of the healthy lifestyle comparison measures was reversed, so the negative correlation actually indicates less risky health behaviors associated with greater amounts of the healthy lifestyle asset.

Had we been able to study the validity of additional asset and thriving constructs, we might have obtained different results. However, these results suggest the concurrent validity of the selected MMW measures. We attempted to select a group of assets and a thriving indicator that would broadly be representative of the assets and thriving indicators measured on the MMW survey. Although validity data on the remaining asset and thriving constructs would be desirable, and will be pursued in the future, the results

also suggest that confidence in the likely validity of those other MMW constructs is not unwarranted.

III. AGGREGATE FIELD TEST RESULTS

Field Test Sample Demographics

Table 8 displays demographic information for each of the field test samples, as well as the aggregate field test sample. The data presented in this report are based on the field test sample. Although the field test sample was reasonably diverse, the pilot test aggregate sample was even more diverse racially/ethnically and socioeconomically. Thus, the development of MMW was shaped by the responses of nearly 2,000 diverse 4th-6th graders in four distinctly different geographic locations across America.

Table 8. Demographic Characteristics of Field Test Samples: Separate and Aggregate—Proportions in Each Category

	Nevada (n = 241)	California (n = 474)	New York (n = 579)	All (n = 1294)
<u>Grade</u>				
4 th	24	35	41	36
5 th	41	42	31	37
6 th	35	23	28	27
<u>Gender</u>				
Male	46	46	44	45
Female	54	54	57	55
<u>Race/Ethnicity</u>				
American Indian	5	6	1	3
Asian	1	1	4	2
Black	0	6	4	4
Hispanic	6	17	1	8
Multi-racial	20	23	17	20
White	64	39	70	58
Other	5	9	4	6
<u>Mother's Education</u>				
Grade School	2	2	0	1
Some High School	2	2	1	1
High School Grad	12	9	9	10
Some College	16	17	10	14
College Grad	24	18	32	25
Grad/Prof School	18	16	28	21
Don't Know	27	36	21	28
<u>Father's Education</u>				
Grade School	1	1	0	1
Some High School	3	2	1	2
High School Grad	15	9	8	9
Some College	12	10	8	10
College Grad	23	14	32	24
Grad/Prof School	13	14	24	19
Don't Know	34	49	27	36
<u>Family Living Status</u>				

Two Birth Parent	58	55	76	65
Adopted	2	2	2	2
One Birth Parent/One Step-parent	13	14	5	10
Only with Mom	8	13	8	10
Only with Dad	1	2	1	1
Part-time with Mom/Dad	15	10	9	10
Other than with Parents	3	3		2
<u>Mobility</u>				
No Place	3	3	1	2
Every Other Year	6	10	4	7
Couple Times Since Kindergarten	29	36	19	27
Once	16	25	22	22
Not At All Since Kindergarten	46	26	55	42

Note. Demographic items were modified for final survey.

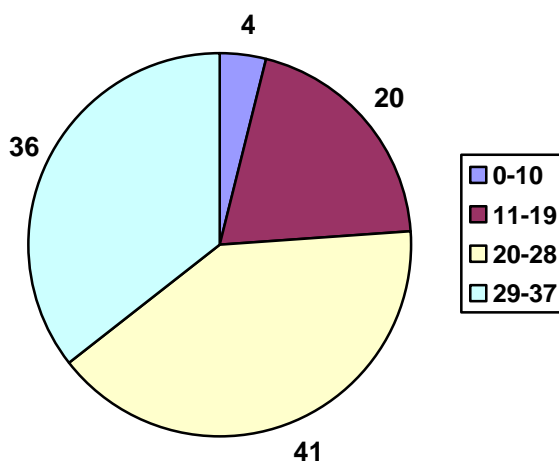
The aggregate field test sample was about 55% female, 45% male, with somewhat more than one-third being 5th graders and somewhat fewer than one-third being 6th graders. Fewer than 60% of the students were white (in the pilot sites, only 35% were white), with the largest other racial/ethnic groups being multiracial (20%) and Hispanic (8%). About 12% of mothers and fathers of these students had a high school education or less (in the pilot sites, about 25% had only a high school education or less), and 43% (fathers) to 46% (mothers) had completed college. But 28% (mothers) to 36% (fathers) of the children reported they did not know their parent's education level.

A sizeable proportion of the field test sample (35%) were living in situations other than with their two birth parents. Finally, the majority of the sample was residentially stable, having moved no more than once since kindergarten (64%). However, nearly 3 in 10 had moved at least a couple of times in those 4-6 years, and nearly 10% said they moved either every year or had no regular place to live.

Prevalence of Developmental Assets, Thriving Indicators, Risks, and Deficits

Generally speaking, more children than not say they do experience the assets. **Figure 1** shows that, across all field-test samples, 36% of students were in the highest asset quartile, or asset rich, and another 41% had more than half the assets. Just 20% had only 11-19 assets, and only 4% reported having 0-10 assets.

Figure 1. Percent of Students in Each Asset Level



Note: Three assets not measured in field tests.

The proportion of upper elementary students saying they do experience an asset tends to be higher than the proportion of *adolescents* who say they experience the same or comparable asset. For example, only 9% of 6th-12th graders report being asset rich and 35% above average. Forty-one percent say they have average numbers of assets, and 15% report being asset depleted (Developmental assets: A portrait of your youth, 2001). Collectively then, 4th-6th graders in our MMW field tests were twice as likely to be in the above average or asset rich quartiles as were adolescents, and half as likely to be at lower levels of assets.

It is possible that some of these striking differences are due to wording differences between the elementary and adolescent surveys that make it easier for elementary students to be scored as having an asset. For example, for the constructive use of time assets, adolescents need to report the number of hours per average week they do the activity, but elementary students need report the less precise number of times per week they do the activity. Elementary students also may have a more positive bias in their reporting. But these findings also are consistent with previous research and supportive of developmental assets theory, in that studies consistently find pre-adolescents more likely than adolescents to have the relationships and opportunities needed for positive development (see Scales, Sesma, & Bolstrom, 2004 for more).

These students were most likely to report experiencing the *internal* assets. Most of the assets large proportions said they did not experience were *external* assets that parents and other adults can provide with and for young people.

Despite the result that most field test students experienced most of the assets, **Table 9** shows that there are 5 assets that less than 50% of children in 4th-6th grade collectively say they experience: Community values children; children as resources; service to others; planning and decision making; and interpersonal competence. In addition, there are another 13 assets that a majority (roughly 50%-60%) of elementary students say they experience, but that a sizeable minority (40%-50%) of students do not: Positive family

communication, other adult relationships, caring neighborhood, parent involvement in schooling, safety, family boundaries, neighborhood boundaries, adult role models, child programs, religious community, learning engagement, reading for pleasure, and a positive view of personal future.

Table 9. Proportion of 4th-6th graders experiencing developmental assets, thriving indicators, risk behavior patterns, and developmental deficits: Separate and Combined Field Tests

	Nevada (n = 241)	California (n = 474)	New York (n = 579)	All (n = 1294)
Developmental Assets				
1. Family support	91	89	87	89
2. Positive family communication	60	64	52	58
3. Other adult relationships	63	59	63	61
4. Caring neighborhood	50	47	63	55
5. Caring school climate	62	57	62	60
6. Parent involvement in schooling	65	56	45	53
7. Community values children	35	31	41	36
8. Children as resources	47	43	48	46
9. Service to others (†)	38	37	38	38
10. Safety	62	52	66	60
11. Family boundaries	60	58	57	58
12. School boundaries (†)	87	90	82	86
13. Neighborhood boundaries	56	58	61	59
14. Adult role models	59	62	51	56
15. Positive peer influence	88	87	94	90
16. High expectations	89	89	93	91
17. Creative activities (†)	64	58	69	64
18. Child programs	62	47	64	58
19. Religious community (†)	53	61	65	60
20. Time at home		ADDED AFTER FIELD TESTS		
21. Achievement motivation	74	79	79	78
22. Learning engagement	53	54	54	53
23. Homework (†)		ADDED AFTER FIELD TESTS		
24. Bonding to adults in school	76	82	81	81
25. Reading for pleasure	56	54	59	57
26. Caring (†)	89	88	88	88
27. Equality and social justice (†)	73	67	68	69
28. Integrity (†)	90	87	87	87
29. Honesty (†)	90	89	86	88

30. Responsibility (†)	80	88	85	85
31. Healthy lifestyle	82	84	92	87
32. Planning and decision making	52	48	47	48
33. Interpersonal competence	44	37	43	41
34. Cultural competence	77	74	74	75
35. Resistance skills	82	82	86	84
36. Peaceful conflict resolution (†)	77	71	82	77
37. Personal power	66	60	66	64
38. Self-esteem	72	59	75	69
39. Sense of purpose		ADDED AFTER FIELD TESTS		
40. Positive view of personal future	62	62	57	60
Thriving Indicators				
1. School success (mostly As and Bs)	76	67	78	74
2. Helps others	78	74	77	76
3. Values diversity	91	90	90	90
4. Delays gratification (†)	73	79	76	77
5. Coregulation	91	80	88	85
6. Coping skills	56	53	53	54
7. Life satisfaction	85	83	83	83
Risk Behavior Patterns				
1. Alcohol use (†)	13	10	5	8
2. Tobacco use (†)	3	2	1	2
3. Marijuana use(†)	2	2	1	1
4. Anti-social behavior (†)	4	5	3	4
5. Physical Aggression/Violence (†)	12	17	16	16
6. Sadness (†)	58	63	59	60
Developmental Deficits				
1. Alone at home (†)	31	36	29	68
2. Too much TV (†)	60	61	64	62
3. Victim of violence (†)	48	47	52	49

Note. † One item scale. Time at home, homework, and sense of purpose assets added after field-tests—no data available.

Gender Differences

In addition, there is some variation across sites, and across grades and gender, in the proportion of elementary students saying they experience the assets. For example, there are statistically significant differences between boys and girls on the following 11 assets. In all cases except safety, more girls reported experiencing these assets:

- Positive family communication**
- Caring school climate**
- Children as resources**
- Service to others**
- Safety*
- Positive peer influence**
- Creative activities**
- Achievement motivation**
- Learning engagement*
- Bonding to school adults**
- Reading for pleasure**
- Caring*
- Integrity**
- Honesty**
- Responsibility*
- Healthy lifestyle**
- Interpersonal competence**
- Cultural competence**
- Resistance skills**
- Peaceful conflict resolution**

** $p \leq .01$

* $p \leq .05$

In addition, there were 12 thriving indicators, deficits, and risk behavior patterns with significant gender differences. In all cases except school success, helps others, and values diversity, more boys reported experiencing these constructs:

- Thriving-school success**
- Thriving-helps others**
- Thriving-values diversity*
- Risk- alcohol use**
- Risk- tobacco use**
- Risk- marijuana use**
- Risk- anti-social behavior**
- Risk- violence**
- Risk- sadness**
- Deficit- alone at home**
- Deficit- too much TV**
- Deficit- victim of violence**

** $p \leq .01$

* $p \leq .05$

Grade Differences

There were also nine assets with statistically significant differences between grade levels. In all cases except for safety, more 4th and 5th graders than 6th graders reported the asset.

- Family support**
- Caring neighborhood*
- Caring school climate**
- Community values children**
- Safety**
- Neighborhood boundaries*
- Positive peer influence**
- Learning engagement**
- Bonding to adults at school**
- Interpersonal competence*
- Resistance skills**
- Peaceful conflict resolution**

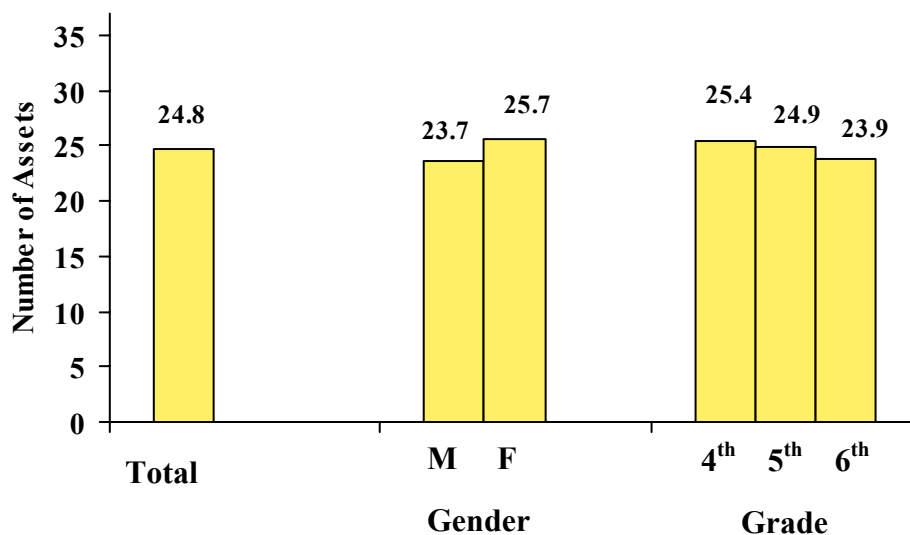
In addition, there were significant differences by grade on the following. Fourth and 5th graders had more of these thriving indicators, and fewer of these risks and deficits:

- Thriving- delays gratification*
- Thriving- coregulation**
- Risk- tobacco use*
- Deficit- too much TV*

** $p \leq .01$

* $p \leq .05$

Figure 2 below shows that students reported experiencing an average 24.8 of the 37 measured assets. Girls ($F(1,1141) = 21.08, p \leq .0001$) and 4th-5th graders ($F(2,1152) = 4.19, p \leq .05$), reported higher than average totals and boys and 6th graders reported lower than average numbers of assets. These results are detailed in Table 10, which displays the proportion of students who report each asset, thriving indicator, risk behavior pattern, and developmental deficit, by total sample as well as by gender and grade. Girls reported significantly more assets than boys.

Figure 2. Mean Number of Assets by Total, Gender, and Grade**Table 10.** Proportion of Aggregate Field Test 4th-6th Graders Experiencing Developmental Assets, by Gender and Grade

Construct		All	Grade		
			4 th	5 th	6 th
DEVELOPMENTAL ASSETS					
Family support	All	89	90	91	83
	Females	88	90	90	82
	Males	89	89	92	85
Positive family communication	All	58	60	59	53
	Females	61	61	62	58
	Males	55	60	55	46
Other adult relationships	All	61	62	63	58
	Females	63	63	66	58
	Males	60	61	61	57
Caring neighborhood	All	55	59	50	55
	Females	57	61	55	55
	Males	52	58	45	55
Caring school climate	All	60	63	63	52
	Females	65	67	70	54
	Males	55	58	56	49
Parent involvement in schooling	All	53	52	56	50
	Females	54	51	58	51
	Males	53	53	53	52
Community values children	All	36	41	36	30

Construct		All	Grade		
			4 th	5 th	6 th
	Females	38	45	38	29
	Males	34	36	33	33
Children as resources	All	46	49	46	41
	Females	50	53	50	46
	Males	41	44	41	35
Service to others	All	38	41	35	37
	Females	44	49	40	44
	Males	30	31	30	28
Safety	All	60	52	62	69
	Females	58	47	59	70
	Males	63	57	66	70
Family boundaries	All	58	60	58	55
	Females	60	62	62	55
	Males	56	57	54	56
School boundaries	All	86	87	87	83
	Females	85	85	86	83
	Males	88	88	90	83
Neighborhood boundaries	All	59	64	56	56
	Females	60	63	58	59
	Males	57	63	54	53
Adult role models	All	56	57	56	55
	Females	57	58	58	55
	Males	55	56	54	57
Positive peer influence	All	90	93	91	86
	Females	93	95	94	90
	Males	87	90	88	82
High expectations	All	91	91	92	88
	Females	91	92	93	88
	Males	90	89	92	89
Creative activities	All	64	66	64	61
	Females	74	77	76	68
	Males	50	53	49	49
Child programs	All	58	58	60	55
	Females	56	55	60	52
	Males	59	60	60	59
Religious community	All	60	59	62	60
	Females	62	61	63	60
	Males	58	55	61	59
Time at home*		ADDED AFTER FIELD TESTS			
Achievement motivation	All	78	79	80	74
	Females	82	83	85	77
	Males	74	73	76	71
Learning engagement	All	53	63	54	40
	Females	56	68	56	42
	Males	50	57	52	38
Homework*		ADDED AFTER FIELD TESTS			
Bonding to school adults	All	81	87	85	67
	Females	86	93	89	72
	Males	75	80	80	59

Construct		All	Grade		
			4 th	5 th	6 th
Reading for pleasure	All	57	60	57	54
	Females	64	57	63	63
	Males	48	50	51	41
Caring	All	88	87	90	88
	Females	90	93	91	89
	Males	86	84	88	86
Equality and social justice	All	69	67	69	71
	Females	69	67	69	73
	Males	68	66	68	70
Integrity	All	87	87	87	88
	Females	91	90	90	92
	Males	83	84	83	83
Honesty	All	88	86	89	88
	Females	90	90	91	90
	Males	85	81	87	86
Responsibility	All	85	86	84	86
	Females	87	88	85	89
	Males	82	84	82	81
Healthy lifestyle	All	87	87	87	87
	Females	90	92	90	88
	Males	83	80	84	86
Planning and decision making	All	48	51	48	45
	Females	50	52	53	44
	Males	46	50	42	46
Interpersonal competence	All	41	45	42	35
	Females	47	49	50	39
	Males	35	40	33	30
Cultural competence	All	75	75	73	77
	Females	78	79	75	80
	Males	71	70	70	73
Resistance skills	All	84	87	85	79
	Females	89	93	91	83
	Males	77	80	79	72
Peaceful conflict resolution	All	77	84	78	66
	Females	85	92	88	71
	Males	68	75	66	59
Personal power	All	64	64	67	60
	Females	63	63	67	58
	Males	65	65	66	62
Self esteem	All	69	71	67	68
	Females	70	73	69	70
	Males	67	69	65	69
Sense of purpose*		ADDED AFTER FIELD TESTS			
Positive view of personal future	All	60	59	57	64
	Females	62	60	61	65
	Males	57	59	53	63
THRIVING INDICATORS					
School success (mostly A's and Bs)	All	74	76	74	70

Construct		All	Grade		
			4 th	5 th	6 th
	Females	77	78	78	77
	Males	70	73	68	66
Helps others	All	76	77	77	75
	Females	80	81	80	80
	Males	71	71	73	66
Values diversity	All	90	88	92	91
	Females	92	90	92	94
	Males	89	86	92	87
Delays gratification	All	77	81	74	77
	Females	77	80	76	74
	Males	77	83	70	81
Coregulation	All	85	82	84	92
	Females	86	82	85	91
	Males	85	81	83	93
Coping skills	All	54	53	55	52
	Females	55	54	56	54
	Males	52	53	53	50
Life satisfaction	All	83	82	85	82
	Females	82	82	84	80
	Males	84	82	86	84
RISK BEHAVIOR PATTERNS					
Alcohol use	All	8	8	8	8
	Females	6	5	6	7
	Males	10	13	10	9
Tobacco use	All	2	2	0	2
	Females	1	0	0	1
	Males	3	5	1	3
Marijuana use	All	1	3	1	1
	Females	0	1	0	0
	Males	3	5	2	1
Anti-social behavior	All	4	4	4	4
	Females	2	2	2	3
	Males	7	7	7	7
Physical Aggression/Violence	All	16	14	18	15
	Females	10	10	11	10
	Males	22	18	26	22
Sadness	All	60	64	60	57
	Females	65	69	65	61
	Males	55	60	52	51
DEVELOPMENTAL DEFICITS					
Alone at home	All	68	34	33	30
	Females	27	30	26	25
	Males	39	39	41	38
Too much TV	All	62	59	61	68
	Females	57	49	56	67
	Males	69	71	67	70

Construct		All	Grade		
			4 th	5 th	6 th
Victim of violence	All	49	51	50	46
	Females	45	43	50	41
	Males	55	59	51	54

Note. * Time at home, homework, and sense of purpose assets added after field-tests—no data available.

Because 6th graders may be surveyed with either the MMW or A&B surveys, there is a need for a comparison study of results from 6th graders taking MMW and the same or comparable 6th graders taking the A&B survey. Until such data are available, our speculation is that, because of differences in how the assets are measured in the two surveys, MMW will suggest 6th graders experience more assets than the A&B suggests they do.

Relation of Assets to Positive Developmental Outcomes

In addition, analyses on the aggregated field-test sample of 1,300 4th-6th graders show many of the same relationships between middle childhood developmental assets and developmental outcomes as have been reported among adolescents. **Table 11** shows that children with higher levels of the assets tend to report fewer risk behaviors and more indicators of thriving.

Table 11. Relationship of Assets to Thriving Indicators and Risk Behavior Patterns: The Power of Assets to Promote and Protect

Constructs	Asset Quartiles	Percentages	Means	F-statistics
THRIVING INDICATORS				
School Success	0-10	47	3.73 ^a	F(3, 1139) = 36.00 p < .000
	11-19	59	3.89 ^a	
	20-28	75	4.18 ^b	
	<u>29-37</u>	<u>96</u>	4.39 ^c	
	Total	75		
Helps Others	0-10	45	2.03 ^a	F(3, 1152) = 94.40 p < .000
	11-19	55	2.25 ^a	
	20-28	77	2.71 ^b	
	<u>29-37</u>	<u>91</u>	3.44 ^c	
	Total	77		
Values Diversity	0-10	55	3.64 ^a	F(3, 1152) = 66.85 p < .000
	11-19	93	4.32 ^b	
	20-28	93	4.55 ^c	
	<u>29-37</u>	<u>96</u>	4.76 ^d	

Constructs	Asset Quartiles	Percentages	Means	F-statistics
	Total	91		
Delays Gratification	0-10	50	3.09 ^a	F(3, 1151) = 34.81 p < .000
	11-19	65	3.70 ^b	
	20-28	78	4.06 ^c	
	<u>29-37</u>	<u>89</u>	4.44 ^d	
	Total	78		
Coregulation	0-10	82	2.29 ^{a,b}	F(3, 1150) = 3.84 p < .009
	11-19	80	2.28 ^a	
	20-28	85	2.34 ^{a,b}	
	<u>29-37</u>	<u>90</u>	2.39 ^b	
	Total	86		
Coping	0-10	7	2.02 ^a	F(3, 1148) = 117.38 p < .000
	11-19	32	2.57 ^b	
	20-28	47	2.82 ^c	
	<u>29-37</u>	<u>76</u>	3.24 ^d	
	Total	53		
Life Satisfaction	0-10	43	2.47 ^a	F(3, 1138) = 93.35 p < .000
	11-19	69	2.99 ^b	
	20-28	85	3.33 ^c	
	<u>29-37</u>	<u>96</u>	3.62 ^d	
	Total	84		
Total # of Thriving Indicators	0-10		3.33 ^a	F(3, 1104) = 13.01 p < .000
	11-19		4.41 ^b	
	20-28		5.41 ^c	
	<u>29-37</u>		6.23 ^d	
	Total			
RISK BEHAVIOR PATTERNS				
Alcohol	0-10	18	1.91 ^a	F(3, 1145) = 13.70 p < .000
	11-19	12	1.68 ^a	
	20-28	7	1.40 ^b	
	<u>29-37</u>	<u>5</u>	1.27 ^b	
	Total	7		
Tobacco	0-10	5	1.20 ^a	F(3, 1144) = 8.59 p < .000
	11-19	3	1.18 ^a	
	20-28	1	1.04 ^b	
	<u>29-37</u>	<u>1</u>	1.03 ^b	
	Total	1		
Marijuana	0-10	5	1.21 ^a	F(3, 1140) = 3.93 p < .008
	11-19	3	1.13 ^{a,b}	
	20-28	0	1.03 ^b	
	<u>29-37</u>	<u>1</u>	1.06 ^b	
	Total	1		

Constructs	Asset Quartiles	Percentages	Means	F-statistics
Anti-social Behavior	0-10	21	1.79 ^a	F(3, 1142) = 17.75 p < .000
	11-19	7	1.31 ^b	
	20-28	3	1.17 ^{b,c}	
	<u>29-37</u>	<u>1</u>	1.07 ^c	
	Total	4		
Physical Aggression/Violence	0-10	1	2.07 ^a	F(3, 1141) = 24.07 p < .000
	11-19	9	2.23 ^a	
	20-28	15	1.72 ^b	
	<u>29-37</u>	<u>8</u>	1.41 ^b	
	Total	15		
Sadness	0-10	63	3.51 ^a	F(3, 1107) = .25 p < .860
	11-19	65	3.50 ^a	
	20-28	60	3.43 ^a	
	<u>29-37</u>	<u>56</u>	3.43 ^a	
	Total	60		
Total # of Risk Behaviors	0-10		1.30 ^a	F(3, 1113) = 225.61 p < .000
	11-19		1.20 ^a	
	20-28		.87 ^b	
	<u>29-37</u>		.72 ^b	
	Total			

Note. Percentage for the full sample in bold. Reading vertically, groups from top to bottom are lowest to highest asset levels. Three assets were not measured for field test, hence standard 0-10, 11-20, 21-30, 31-40 asset quartiles not depicted above. Mean values with different superscripts are significantly different from each other at $p < .05$.

The low frequency of risk behaviors in this age group puts a limit on how strongly the affect of assets on risk behaviors in middle childhood can be shown. But even with that caveat, children with more assets report less engagement in all risk behaviors, with the differences by asset quartile statistically significant for all risk behaviors except sadness. The relations between asset levels and thriving indicators were statistically significant for all thriving measures. Analyses with a larger aggregated sample possible after the first 2-3 years of widespread MMW use nationally should help clarify whether these findings were limited to the field tests, or whether they are relatively stable relations between assets and risk behaviors among 4th-6th graders.

The only thriving indicator that does not appear related to asset levels is coregulation. Children with different levels of assets are not different in reporting how much they experience coregulation. It is possible that our measure of coregulation is not sufficiently sensitive to detect differences. However, successively higher levels of assets are associated with higher levels of all the other middle childhood thriving indicators—school success, helping others, valuing diversity, delaying gratification, use of active coping skills, and life satisfaction.

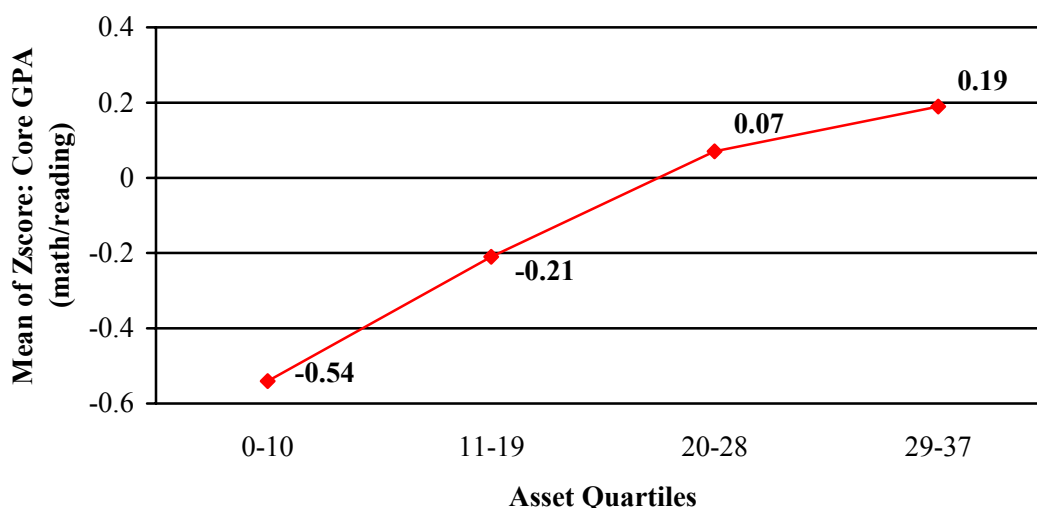
Relation of Assets to Actual Grades

All of these relations are between self-report measures of assets and self-report measures of the risk and thriving outcomes. However, we also collected actual grades in the three field-test sites. Because each site used somewhat different grade-point scales (e.g., 0-4, 1-5, 0-4.3), we used actual GPAs in analyses for each separate site, and then used standardized scores to examine the relation between assets and GPA for the aggregate field test sample. In each of the separate sites, and across the aggregate field test sample, students with higher asset levels had higher GPAs (see **Figure 3**, which depicts the aggregate results).

Specifically, an ANOVA showed that students with above average levels of assets—the top two quartiles—had significantly higher GPAs than students with average or below-average levels of assets—the bottom two quartiles ($F(3,1086)= 12.97, p \leq .0001$). This result is substantially consistent with the finding reported for a sample of several hundred adolescents, that higher asset levels are related both to higher self-reported grades and higher actual GPAs (Scales & Roehlkepartain, 2003). In each age group, higher asset level is related to higher GPA. But among adolescents, we found that each quartile increase in asset level was associated with a statistically significant increase in GPA. In our sample of preadolescents, the bottom two quartiles are not significantly different from each other in GPA; neither are the top two levels significantly different from each other. For preadolescents, the significant association of assets with GPA occurs not at each quartile, but between quartiles 2 and 3, reflecting the difference between having average and above-average levels of assets.

These results may reflect true developmental differences between the two broad age groups, or simply be an artifact of sampling. Only a minority of the preadolescent field test sample reported what in a normal distribution would be average or below-average levels of assets, and those relatively small numbers may have precluded us from being able to detect GPA differences at each asset level. A larger sample size at the lower end of the asset distribution may have yielded a different result. It is possible, however, that because adolescents' worlds are more complex and differentiated than those of preadolescents, relatively smaller differences in asset levels may have a stronger potential association with positive outcomes. More research is needed to suggest the relative merits of the methodological and developmental explanations for the asset-GPA differences found among preadolescents versus adolescents. Nevertheless, the general linkage of more assets with higher GPA holds for preadolescents and adolescents.

Figure 3. Mean GPA Z-scores by Asset Level



Overall then, these field test findings offer suggestive evidence for the validity of the middle childhood assets framework and selected survey measures. They substantially replicate the associations consistently found in samples of adolescents—and predicted by developmental assets theory to apply to younger children— between assets and positive developmental outcomes (both self-report and objective measures), namely, that higher levels of assets are associated with fewer risk behaviors and more thriving.

Cautions

Sample Size

We have alluded to cautions about MMW throughout this Manual. The principal caution in using MMW in its first year of availability is due to the limited field-test sample size. Although the field-test sample size of 1,300 students is not trivial, it also is neither so large nor reflective of sufficiently diverse communities that we can be certain the field test results are quite stable and/or indicative of what 4th-6th graders in general would report.

In addition to the fact that the field-test sample was not representative of a larger population, there were small cell sizes for many comparisons (e.g., assets by race/ethnicity, or by residence, etc.). This made it inappropriate to conduct those analyses and therefore leaves unknown for now the extent and workings of assets across middle childhood diversities other than gender and grade level. Although we have reasonable confidence in the validity of the data reported here, the ongoing use of MMW throughout the country will provide an aggregated sample, after the first years of use, that

will allow us to either confirm or modify the general conclusions we offer, and to fill in some of these current knowledge gaps.

Missing or Not Sure Responses

More specifically, we identified a number of items in which 20% of the responses either were missing or were a “Not Sure.” The amount or nature of those items can vary widely across communities. For example, in our pilot sites, 100 items included “not sure” as a response option. In the Oklahoma City pilot, 20% or more of students responded “not sure” on 40 items, nearly twice as often as students in the Norman, OK site did. Subsequent to the pilots, wording revisions were made in an effort to make such questions more concrete and therefore reduce the proportion of “not sure” responses.

Those revisions were somewhat successful, but a number of items continued to have relatively high proportions of “not sure” responses in the three field-test sites, and so results from those items should be viewed cautiously (see **Tables 12 and 13**). Most of those questions asked students to reflect on their internal self-processes (e.g., “I usually think carefully before making a decision”) or describe how others might be behaving or feeling (e.g., “my parents spend a lot of time helping others,” or “adults in my neighborhood care about me”). Students in the upper elementary grades may well understand what the question is asking of them, but they may be unable cognitively to respond with certainty. These items will be monitored as use of MMW increases in order to assess whether the proportion of “not sure” responses improves. If so, it would suggest that the field-test patterns of not sure responses were anomalous.

Table 12. Assets with >20% Not Sure In All 3 Field Test Sites

Asset	Number of Items with 20% or More “Not sure”	Mean % “Not sure”
Community values children	2	35
Adult role models	3	32
Neighborhood boundaries	2	30
Children as resources	2	29
Caring neighborhood	2	28
Interpersonal competence	4	27
Equality and social justice	1	24
Learning engagement	1	23
Positive family communication	1	23
Planning and decision making	5	23

Table 13. Items with students responding 20 percent or more “not sure” across two or more field test sites

Construct	Item
Positive family communication	<ul style="list-style-type: none"> • It’s easy to talk with my parents, even about things we don’t agree on.
Caring neighborhood	<ul style="list-style-type: none"> • Adults in my neighborhood care about me. • Adults in my neighborhood know my name.
Caring school climate	<ul style="list-style-type: none"> • My teachers really care about me. • The kids in my class treat me with respect. • The kids in my class like me ok. (-)
Community values children	<ul style="list-style-type: none"> • Adults in my neighborhood make me feel important. • Adults in my neighborhood listen to me. • My neighbors tell me if they see me do something good.
Child given useful roles	<ul style="list-style-type: none"> • My parents let me help with family decisions. • My teachers let me help with classroom decisions.
Service to others	<ul style="list-style-type: none"> • I go to clubs or groups that give me chances to help others.
Neighborhood boundaries	<ul style="list-style-type: none"> • If kids were being loud and bothering people in my neighborhood, my neighbors would tell me them to stop. • If kids were teasing or bullying someone in my neighborhood, my neighbors would tell them to stop.
Adult role models	<ul style="list-style-type: none"> • When I grow up, I want to be like my parents. (-) <p>Other than you parents, think about adults in your family, like your grandparents, aunts, or uncles. How much do you agree or disagree? Most of those other adults in my family. . .</p> <ul style="list-style-type: none"> • spend a lot of time helping other people? <p>Other than in your family, think about those adults you have know for a long time. How much do you agree or disagree? Most of the adults I’ve known for a long time. . .</p> <ul style="list-style-type: none"> • spend a lot of time helping other people? • show you how to spend, share, and save money?
Learning engagement	<ul style="list-style-type: none"> • I am interested in the things we study at school. • I look forward to going to school.
Equality and social justice	<p>My parents show me it is important. . .</p> <ul style="list-style-type: none"> • to speak up for everyone having the same rights and chances in life.
Planning and decision making	<ul style="list-style-type: none"> • Most of the time, when I have a big job to do, I think about the things I need to do to get it done. • When I want to do or get something, I’m good at figuring it out. (-) • Most of the time, I think carefully about what to do before I decide things. • Most of the time, I feel happy as a result of the decisions I make. • Most of the time, when I make a decision I think about the good and bad things that can happen as a result.

Construct	Item
Interpersonal competence	<ul style="list-style-type: none"> • I am always friendly. • I always smile. • When I am in a new group, the other kids in the group usually like me. (-) • When I get angry at school, I am good at calming myself down. (*) • I usually stay pretty calm when things don't go my way.
Personal power	<ul style="list-style-type: none"> • I feel I can solve most problems in my life. • Generally, I am a confident person. (*)
Positive view of personal future	<ul style="list-style-type: none"> • I feel hopeful when I think about my future. • There are some adults in my life who talk to me about planning for my future.
Delays gratification	<ul style="list-style-type: none"> • I'd rather have something I sort of want now, instead of waiting until later for something I really want. (*)

Note. (-)Item dropped for final survey. (*)Item revised for final survey.

Quartiles Versus Thirds As Grouping Rule

In the standard report communities receive on their MMW results, as well as in this Manual, description of how asset levels are related to risk reduction and thriving outcomes (the “power to protect and promote”) are framed in terms of differences among students at differing quartile levels of assets (0-10, 11-20, 21-30, and 31-40). This quartile reporting is useful because it is a familiar rubric that has been used for years to report the similar developmental assets data among samples of adolescents. Practically speaking, communities that use both the A&B and MMW surveys to better understand assets among the range of 4th-12th graders thus have a common metric for looking at that combined grade range.

However, as we showed in Figure 1, only 4% or 52 of the 1,294 4th-6th graders in our aggregate field-test sample reported the lowest level of assets, 0-10. Even with a relatively large sample size, the absolute number of students in that category was small, introducing greater error into analyses. Further dividing the sample by gender or grade levels, and continuing to use the quartile framework, creates still smaller cell sizes and more error-laden results that must be treated cautiously. Therefore, communities whose distributions of assets across quartiles mirror these field-test results (i.e., very few students in the lowest asset quartile) might consider looking at the data in a different way as well, perhaps by thirds (e.g., 0-13, 14-27, and 28-40 assets).

Cross-Sectional Nature of Field-Test Data

A final caution is that the data we report here are cross-sectional, not longitudinal. Thus, for example, noting that 4th and 5th graders tend to report more assets than 6th graders does not necessarily mean assets go down across those years, since we did not examine the trajectory of assets over time. Those data comparing 4th-6th graders are indeed consistent with both cross-sectional data among adolescents, and with longitudinal data among adolescents that do indicate what we hypothesize, that assets in fact tend to

decrease as children age, for perhaps as many as 40% of young people (Scales & Roehlkepartain, 2003). But the data reported here and in the standard MMW reports communities receive do not directly suggest that trend. Nor, despite the positive concurrent relations between assets and outcomes reported here, do we know whether earlier levels of assets in middle childhood, or changes in asset levels, are related to risk reduction and increased thriving over time . Given that there is evidence for those longitudinal relations among adolescents (Scales & Roehlkepartain, 2003; Roehlkepartain, Benson, and Sesma, 2003), we can reasonably speculate that similar positive results will be found for upper-elementary students, but longitudinal studies are needed to confirm that hypothesis.

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