



# Families and Schools Together: an experimental analysis of a parent-mediated multi-family group program for American Indian children

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## Abstract

The goals of this randomized intervention study were to: (a) increase academic performance among American Indian children ages 4–9 years and (b) reduce classroom problem behaviors. To achieve these goals, the multi-family group program called Families and Schools Together (FAST) was adapted with three American Indian Nations in Wisconsin. Over 3 years, seven multi-family group cycles of FAST were implemented, each lasting 8 weeks. In collaboration with the College of Menominee Nation, this parent intervention approach was adapted to express tribal values while maintaining its core components. Fifty pairs of universally recruited American Indian students at three schools who were assessed, matched on five variables, and then randomly assigned to either the FAST or non-FAST control condition. Pretest, posttest, and 9- to 12-month follow-up data were collected by American Indian staff and university students on multiple indicators of academic and behavioral performance. Of the 50 families that attended FAST meetings at least once, 40 graduated (80%) from the 7 FAST cycles. On the immediate posttest, statistically significant differences in improvement, favoring FAST participants were found on the Aggressive Behavior scale of the teacher-rated Child Behavior Checklist (CBCL) and on the parent-rated Withdrawn

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scale of the same instrument. On the 1-year follow-up assessment, parent CBCL ratings indicated that FAST students had maintained their less withdrawn status and teacher ratings on the Social Skills Rating Scale (SSRS) revealed that FAST participants had exhibited relatively greater improvement in their academic competence. Parent surveys of the graduated students generally showed satisfaction with the program. Implications of the present results and future research directions are discussed.

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## Introduction

The major objectives of this project were to: (a) adapt the research-based Families and Schools Together (FAST) Program (McDonald et al., 1991; McDonald, Billingham, Conrad, Morgan, & Payton, 1997; McDonald & Sayer, 1998; McDonald & Frey, 1999; McDonald, 2002) in partnership with the American Indian College of Menominee Nation; (b) implement the adapted multi-family FAST group process with American Indian students; and (c) increase academic achievement and reduce behavioral problems of American Indian students. To investigate these objectives, we designed a randomized intervention study that incorporates school-based research methodology that is both innovative and scientifically “credible” (Levin, 1994).

FAST has been systematically replicated and evaluated in both urban and rural settings in 38 states and in over 600 communities with diverse ethnic and socioeconomic groups (although predominantly in low-income families) and has been well received by families with limited English proficiency. FAST has been included on several federal agency lists of effective, research-based models, including those characterized as:

- a school reform model to achieve parent involvement (Tools for Schools, 1996),
- a school violence prevention program (White House School Safety Conference, 1998),
- a delinquency prevention program (Office of Juvenile Justice Delinquency Prevention, 1993, 2000), and
- a science based prevention model for substance abuse and mental health problems; National Registry of Prevention Programs, SAMHSA ([Schinke, et al. 2003](#)).

FAST has also been included in several state budget initiatives (e.g., Wisconsin, \$10 million; California, \$10 million; Missouri, \$1 million; South Carolina, \$20 million; and North Carolina, \$2 million).

Our present focus on American Indian children is compelling. Over 50% of such children across the nation will drop out of school. These students have the highest dropout rates of any students of color ([Kasten, 1992](#)). Equally alarming is the incidence of special education placement of these children: Approximately 33% are classified as learning disabled and 19% as mentally retarded; and 20% to 25% experience “significant emotional disorders” ([Grimm, 1993](#)). The gaps between skill and academic performance begin in elementary school.

Despite these urgent education issues, there are few studies involving major research institutions collaborating with tribal colleges that focus on these problems. The purpose of this project was to: (a) expand the American Indian research knowledge base; and (b) sharpen strategies for building protective factors that could prevent the development of negative academic and social behaviors at the elementary school level—behaviors that result in high dropout rates. We adapted and implemented FAST to help students of three American Indian nations succeed academically. Our project addressed high rates of school failure among American Indian school children through intervening early, in partnership with parents, to promote the behavioral correlates of academic success.

### **FAST program description**

FAST is an activity-based collaborative program that builds multiple layers of protective factors around at-risk children, including intensive parental involvement to promote the children's resilience in adversity and reduce long-term negative outcomes (Alexander & Parsons, 1982; Beavers & Hampson, 1990; Rutter, 1979; Werner, 1989). Each specific activity in FAST is based on research on the interplay between social ecology of child development (e.g., Barkley, 1987; Bronfenbrenner, 1979, Guerney & Guerney, 1989; Kogan, 1978; Luthar & Zigler, 1991; Webster-Stratton, 1985), family stress (e.g., Hill, 1958; McCubbin & Patterson, 1983), family systems (e.g., Alexander & Parsons, 1982; Minuchin, 1974), social support (e.g., Egeland, Breitenbacher, & Rosenberg, 1980; Ell, 1984; Gilligan, 1982; Wahler, 1983), behavioral parenting techniques (Patterson, 1975), and stress, isolation and poverty (e.g., Belle, 1990; Dunst, Trivette, & Deal, 1988). The social "insularity" of mothers' (Wahler, 1983), recognized as compromising parenting efficacy, is addressed through social connections of multi-family groups.

Specifically, rather than view the risk-related classroom behaviors as a child's individual problem, FAST is structured so that the child is part of his or her family and the parent is the primary prevention agent for that child. To reduce the child's at-risk status, the whole family is engaged through a home visit and participates in the two-phase prevention program. As many as 10 families participate in Phase 1 for eight consecutive weekly meetings. Following "graduation" at the final multi-family meeting, Phase 2 begins. At monthly meetings, the Phase 1 curriculum is reviewed in conjunction with special social events. The meetings are planned and executed by the graduated parents with staff support.

The curriculum of the multi-family meetings is derived from family therapy principles, techniques from child psychiatry, and group work theory. Families sit at tables where they enjoy meals as family units. At the first session, each family creates a flag with idiosyncratic family symbols and displays it prominently at its table each week. One third of the session is spent on family-strengthening activities that focus the family's attention on itself through fun and laughter-producing interactive assignments. Communications are structured to encourage listening and turn-taking within families whose members otherwise may not take the time to listen carefully to each other. One game encourages family members to identify one another's feelings by prompting "feeling talk." The final activity is a "lottery" that provides families an opportunity to win prizes as a unit, thereby promoting family cohesiveness and helping family members feel like winners.

For the second third of the session, the parents meet as a support group while the children play separately. During this meeting, the facilitator promotes interdependence among the parents and activates group sharing but specifically avoids playing the role of “teacher” to the parents. Parents seem to look forward to this respite from their children and a time of nurturance.

A critical part of the curriculum is a “special play” period in which each parent spends 15 min with his or her at-risk child alone at their family table. Other siblings in the family remain outside during this time. The FAST staff coaches parents in a modified play therapy technique, and the daily repetition of this quality one-to-one time is assigned as “homework” each week. Following the break and the support-group meeting, the parents quickly master this new technique, with the staff’s sympathetic prompting.

The FAST program enables adults to succeed at parenting. The philosophy underlying the program is that: (a) all parents love their children; but (b) the parenting processes can be interrupted by circumstances beyond parental control, such as stresses and social isolation. Social support, food, fun, and respite are offered to the adults nurturer to better equip them for the parenting work that only they can do. FAST uses a positive, rather than a punitive, approach. The program achieves its goals by respecting and supporting parents, rather than by criticizing and undercutting their power. The program seeks to support and empower parents to become the primary intervention agents for their own children.

Schools rarely invite families into partnership to help children succeed in the classroom, although research strongly supports such a strategy. Based on a review of research on the relationship between family factors and student achievement, [Christenson, Rounds, & Gorney \(1992\)](#), identified five critical factors. These five academic correlates are: (a) positive parental expectations, (b) structure in the home (which supports learning), (c) positive affective environment in the home, (d) effective discipline, and (e) parent involvement at home and with the school. Each of these factors is addressed in FAST activities. [Epstein's \(1989, 1991, 1992\)](#) seminal work on parent involvement in schools identified six types of parent involvement activities that schools can work to achieve (i.e., parenting, communicating, volunteering, learning at home, decision making, and collaborating with the community). Half of these levels are directly addressed in FAST: parenting, communicating, and collaborating with the community.

Program evaluations of FAST implementations in 53 schools in 13 states ([McDonald & Frey, 1999](#)) using pre- and post-parent and teacher reports and standardized instruments report improvement in attention span, conduct, and anxiety of at-risk children after participation in the 8-week FAST program. After completion of that 8-week program, 2 years of parent-run, monthly multi-family meetings (called FASTWORKS) are then offered. Two-year follow-up data of 251 FAST parent graduates suggest maintenance of improved child behavior ([McDonald & Sayer, 1998](#)). In addition, 86% of FAST parents said they made new friends at FAST ([McDonald et al., 1997](#)).

In the present research, the tribally controlled College of Menominee Nation was directly involved in developing the adapted FAST program. The college insured a consistent expression of tribal values and respectful sharing of history and heritage for each of three American Indian nations. FAST was adapted for implementation at three schools. The three schools involved in this study were very different from one another in structure, location, as well as in the American Indian populations served. One school was

serving primarily white children (i.e., with 43% American Indian children from one tribe). This was a public school administered and taught by white teachers and the school board was governed by the dominant culture. It is situated in a rural area less than one mile from the reservation. In contrast, the other two schools served 100% American Indian students, each from a different nation. One school was rural and situated on the reservation and the other was urban. One of the schools had a very high turnover of staff and administrators during our 3-year project, including a brief period in which two principals were housed in the school at the same time. One school was tribally owned and run; the other was public and state supported. One had white teachers and white administrators, with a 100% American Indian school board. The other had white teachers, American Indian administrators, and 100% American Indian School Board.

Respected members of the American Indian Language and Culture Education Board of Wisconsin reviewed the adaptations made to the traditional FAST program. Three basic strategies for effective transcultural intervention with American Indians were used with FAST: (1) making interventions for at-risk youth and families more accessible; (2) using role modeling, behavioral rehearsal, action-oriented, and present-focused intervention approaches; and (3) integrating traditional healing methods with culturally appropriate interventions (Vraniak & Pickett, 1993). The adapted FAST program was facilitated by a culturally represented (based on American Indian members) team trained by the FAST National Training Center and a multilevel collaboration among schools, clusters of American Indian families, and their communities—linking all participants in an extended network of social support, including parent peer groups.

## Method

### *Participants*

Three types of participants were recruited for the study: teachers and parents and their children.

#### *Parent and child participants*

Parents and children who participated in the research project ( $N=100$  families) were openly and universally recruited. Families were recruited at a school event and by sending information about the project home with all students in grades K-2 in the participating schools. Home visits were made to all who responded positively to a flier. Parents were of American Indian descent and had children who attended reservation or public schools in northern Wisconsin. Parents provided written consent for their children to participate.

#### *Teacher participants*

Kindergarten, first-, and second-grade teachers at three schools received an in-service at each school about the research and the multi-family group intervention. If the teachers were willing to participate in the FAST program, they were informed about the nature of the research and provided written consent. Teachers completed rating scales on the children in their classes, the results of which were used to create matched pairs of students (see below).

### Research design

Seven FAST cycles (with the eight weekly meetings of the multi-family groups constituting one cycle) were implemented sequentially over a 3-year period. Within each cycle, all children were matched on the basis of a number of designated characteristics and then randomly assigned either to participate in the FAST program or to serve as non-FAST controls. To the best of the researchers' ability, all teachers, observers, and testers were kept "blind" concerning participants' condition status. Primary student matching characteristics included tribal heritage, school, grade level, gender, and teacher ratings on the internalizing and externalizing behavior scales of the *Child Behavior Checklist* (CBCL; Achenbach, 1991). Child participants' entering characteristics, by cycle and experimental condition, are summarized in **Table 1**.

From the information in **Table 1**, it can be seen that, in general, within each cycle FAST and control child participants were quite comparable. No initial statistical differences between FAST and control participants were detected, either within or across cycles. The largest condition-related difference emerged for Cycle 4 participants on the CBCL externalizing scale, where FAST students were rated somewhat, although not statistically, higher (i.e., more inappropriate behaviors) than their paired control counterparts.

### Procedure

In view of the higher base rates of academic and social problems among the American Indian population in the schools targeted for the present study, all children were eligible to participate in the FAST program (i.e., the program was considered

**Table 1**  
Participants' entering characteristics

Cycle	No. of pairs	Condition	Grade level			Gender		CBCL: teacher	
			K	1	2	3	F	Internalizing	Externalizing
1	9	FAST	0	3	2	4	5	46.7 (1)*	53.7 (2)
		Control	0	3	2	4	5	52.3 (2)	52.6 (2)
2	6	FAST	0	4	0	2	2	55.7 (2)	53.8 (2)
		Control	0	5	0	1	2	50.7 (0)	59.5 (4)
3	9	FAST	9	0	0	0	6	51.0 (2)	58.6 (5)
		Control	9	0	0	0	6	46.6 (0)	50.8 (1)
4	6	FAST	2	1	2	1	3	53.0 (1)	65.2 (4)
		Control	2	1	2	1	4	51.5 (2)	56.7 (2)
5	8	FAST	3	1	3	1	7	50.0 (2)	52.8 (1)
		Control	3	1	3	1	7	50.4 (2)	50.5 (1)
6	7	FAST	2	0	2	3	3	47.3 (1)	52.1 (0)
		Control	1	1	2	3	3	43.4 (1)	48.9 (1)
7	5	FAST	3	1	1	0	2	52.0 (1)	59.6 (3)
		Control	3	1	1	0	2	58.2 (2)	58.2 (3)
All	50	FAST	19	10	10	11	28	50.4 (10)	56.2 (17)
		Control	18	12	10	10	29	50.0 (9)	53.3 (14)

\* Numbers in parentheses indicate the number of students who are at or above a "borderline" level score of 60.

“Universal”). Teachers and parents were informed about the nature of their participation and consented to be part of the study. The specific procedures for FAST participants are outlined below.

#### *FAST program*

Although about 60% of the FAST program was adapted, the core elements (40%) were implemented in a standardized fashion, as outlined in the FAST Practice Profile developed by McDonald (1992). This 60%–40% division represents the flexibility for adapting a research-based program to fit local needs, as recommended in the FAST Trainer Manual (McDonald, 1992, 2000). Fig. 1 provides an overview of program components, examples of specific adaptations, the variables that each component was designed to target, specifications of the mental health research that FAST is based upon, and the academic correlates.

#### *Settings*

The seven FAST multi-family group cycles were implemented in three school sites, by supervised and trained teams. Certified FAST trainers directly observed three of the eight sessions for each cycle. Faculty from the College of Menominee Nation participated in every step of the planning for the research and were central to the process of adapting FAST to each American Indian population. The faculty were also instrumental in problem solving over time and in monitoring implementations over 3 years. College of Menominee students were paid, trained by Juniper Gardens staff and required to pass certification tests on their direct observation skills on the Ecobehavioral Assessment System (see Greenwood, Carta, Kamps, Terry, & Delquadri, 1994; see below). The College of Menominee Nation students conducted direct observations in the school classrooms of children's behaviors. Certified FAST trainers, training manuals, and operations checklists were provided in reservation school settings for each of the three nations across the three years of the project.

#### *Instrumentation*

Instrumentation was based on four domains, including instruments used to: (a) pretest participants and provide information on sample characteristics, (b) assess the FAST intervention process and its integrity, (c) assess social and academic outcomes (i.e., the dependent variables), and (d) measure social validation.

#### *Pretests*

Although child and parent participants were not “screened” to be eligible for participation in the research, several measures served the dual purpose of providing descriptive information and pretest data. Achievement was assessed using standardized tests. In addition, several measures (described below), including the *Child Behavior Checklist* (Achenbach, 1991) and *Social Skills Rating System* (Gresham & Elliott, 1990), were used. Thus, base rates of academic and social performance were established through these assessments and allowed comparison of the sample with state and national standardization data.

### *FAST program integrity instruments*

Because FAST is a multi-component intervention program designed to build relationships (i.e., multiple protective factors), program integrity measures of FAST implementation were taken by certified FAST trainers on repeated site-visit observations of the cycle

### *FAST MFG Program Components Adapted by Culturally Representative Teams*

Activity Weekly MFG	Component description (40%)	American Indian Cultural Adaptations (60% locally developed)	Mental health research	Academic correlates*
Flag 1 <sup>st</sup> wk only	Each family unit creates a family flag to set on their family table for 8 weeks. Parent is in charge of process in which each family member adds to flag.	Adapted to the family building a family shield together representing the extended family and the clan within the Nation; used natural materials; used symbols of the tribe vs. a flag on a pole	Alexander & Parsons (1982); Minuchin (1974)	1, 1a; 2, 2a, c, d, e; 3, 3a, b, c, d, e; 4, 4a, b, c; 5, 5a, d.
Music 15 min	FAST song. Families are invited to bring songs to teach others, and school songs can be shared.	Adapted to time for drumming, chanting and dancing; sharing the traditional and historical tribal songs w/ children	Egeland, Breitenbucher, & Rosenberg (1980)	2; 3, 3e; 4b; 5c
Meal 30 min	The host family gets \$ to buy food, plans menu, prepares a meal for 12 families. Host family thanked as hosts; that family won the lottery the week before. Staff helps the children to serve the parents their dinner, showing respect to the parent, in the school setting.	Adapted to traditional Indian foods and host parents explaining their tribal customs and food selections to the children; modeling building relationships within the community, with parents demonstrating to children building reciprocity and respectful turn-taking	Dunst, Trivette, & Deal (1988); Minuchin (1974)	2, 2a, b, e; 3, 3a, b, e; 4b; 5a, c
Scribbles 15 min	A family drawing and talking game with family members asking questions about what others drew and imagined; parent is in charge of turn taking structure.	Adapted to drawing pictures of cultural relevance in their tribal community; parents lead family discussion with their values, teachings and spiritual customs; lots of laughter at family table	Alexander & Parsons (1982); Egeland et al. (1980); Minuchin (1974)	1a; 2a, b, c, e; 3a, b, c, d, e; 4b, c; 5a, c, d
Feelings charades 15 min	Play acting feelings within family; parent is in charge of the guessing and talking game about a range of common feelings; parents lead the turn-taking process.	Adapted the picture cards to look Native American; acting and drama at the family table with lots of laughter; parent values are passed on to children in experiential learning; no lectures; parent led	Alexander & Parsons (1982); Beavers & Hampson (1990); Egeland et al. (1980); Werner (1989)	2c, d

Fig. 1. FAST Program Components and Adaptation.

Activity Weekly MFG	Component description (40%)	American Indian Cultural Adaptations (60% locally developed)	Mental health research	Academic correlates*
Kids' play 1 hour	Developmentally appropriate organized activities for the children; adult led positive peer group experiences without TV or movies.	Adapted by inviting tribal elders to do storytelling in native language to transmit traditional values and history; teaching tribal craft activities with native materials	Minuchin (1974); Rutter (1979)	3, 3a, b, c, d, e; 4, 4a, c, c
Parents' talk 1 hour	One-to-one adult time to connect privately; then, a parent self-help group. Parents share their own issues and help each other help their child succeed in school. No lectures or curriculum. No school staff in group.	Adapted to increase time to talk in dyads as well as in small groups; lots of laughter and sharing; parents gave advice to one another rather than relying on "expert books" or "tip sheets" from other cultures; informal social support networks emerged over time.	Beavers & Hampson (1990); Belle (1990); Egeland et al. (1980); Gilligan (1982); Hill; Wahler (1983); Werner (1989)	5a
Parent-child "special play" 15 min	Child-initiated play with parent coached to follow child's lead, not teach, not direct, or judge child. This method is taught by 4 of 50 Science based SAMHSA Models;	Adapted the play materials to be natural and easy to find, with no cost to the materials; this child-led process with focus on listening by parent reported to be congruent with traditional parenting practices and tribal customs	Barkley (1987); Guerney & Guerney (1989); Kogan (1978); Minuchin (1974); Webster-Stratton (1985) Schinke, et. al. (2002)	3a, b, c, d, e
Lottery	Each family is guaranteed to win once. The winning family is showcased and receives many prizes for each person. The winner cooks the next week's meal.	Adapted the structure of the process to fit the tribal customs of lottery games; gifts selected that had value for individual family winners, reflecting traditional values and customs	Dunst et al. (1988); Hill (1949, 1958); Minuchin (1974) Patterson (1975)	5c

Fig. 1 (continued).

implementations. Specifically, FAST process evaluation forms and a program implementation scale, the Practice Profile, were used to assess the integrity of treatment throughout the FAST implementations.

#### *FAST outcome assessment*

Multiple outcome measures were taken to evaluate the outcomes of the FAST program.

**Academic assessment.** The Ecobehavioral Assessment System (EBASS) consists of a series of instruments designed to assess instructional and student academic outcomes

Activity Weekly MFG	Component description (40%)	American Indian Cultural Adaptations (60% locally developed)	Mental health research	Academic correlates*
Opening and Closing: circle 5 min	Each family does a FAST greeting at the start. At the end, all members of this community, old and young, parents and professionals from school & community gather into a large circle for general announcements, etc. Nonverbal routine shared which sounds like rain and thunder.	Adapted the opening and closing of the multi-family group event to be led by a tribal elder; different in each Nation; both the beginning and the ending took place in a circle, and both circles included words in the native language; smudging ceremonies; FAST components placed within a structure created by the local tribal leaders	Bronfenbrenner (1979) Grimm (1993) Wahler (1983)	5c
Daily homework for parents: Special play	Parents are expected to do “special play” every day at home as “homework.” A behavior chart and stickers are given to parent.	Adapted to checking in about doing “special play” without chart and stickers.	Barkley (1987) Kogan (1978) Patterson (1975) Webster-Stratton (1985)	3a, b, c, d; 5a, 5d
Substance abuse info: 5 <sup>th</sup> session	Professional formal presentation made to whole families on substance abuse. Parents lead a family discussion, breaking the “no-talk” rule.	Adapted to be a tribal representative speaking about holistic and non-traditional practices for prevention of substance abuse which reflect tribal values.		4a, b, c
Graduation: 8 <sup>th</sup> session	Ceremony at school graduates 10 whole families; guests are invited by families, and school principal gives a certificate of completion to parent; graduation hats and play “Pomp and Circumstance,” to reward small steps of family unit and to foreshadow high school graduation.	Adapted to an “honorary completion” ceremony led by tribal elders, with a drumming ceremony, smudging, and dancing; no graduation hats, but other gifts given to the families; no “Pomp and circumstance”; many guests brought by the families in honor of completion of the 8 week multi-family group FAST process	Minuchin (1974) Patterson (1975) Wahler (1983) Werner (1989)	5a, b, c, d, e

Fig. 1 (continued).

(Greenwood, Carta, Kamps, Terry, & Delquadri, 1994). The EBASS involves a software system for separate instruments, including the Ecobehavioral System for Complex Assessments of Preschool Environments (ESCAPE), Code for Instructional Structure in Student Academic Response (CISSAR), and the mainstream version of CISSAR (MS-CISSAR). The EBASS was implemented by trained observers to assess repeatedly

Activity Weekly MFG	Component description (40%)	American Indian Cultural Adaptations (60% locally developed)	Mental health research	Academic correlates*
Monthly MFG: Two years	Monthly meetings for 2 years to maintain relationships; parents determine agenda, and receive a small budget from school, with support from the school. Parents may choose more training or outings for MFG.	Adapted by local parents to advocate to School Board for more FAST; big increase in parent involvement in schools; maintained relationships with schools; taught kids traditional customs; kept reciprocal relationships going with other parents	Epstein (1991) Wahler (1983) Werner (1989)	5b, c, d, e

\*Key to academic correlates: 1. Parental expectations, 1a. Effort attributions (cultural and gender differences); 2. Learning supported by home structure, 2a. Verbal interactions, 2b. Meal and conversation, 2c. Appropriate toys, 2d. Books vs. TV area for homework, 2e. Quiet routines; 3. Home affective environment, 3a. Parent-child relationship, 3b. Parental acceptance, nurturance, encouragement, involvement, and emotional responsiveness, 3c. Consultation with the child, providing support in problem solving, 3d. Permission for child to explore, 3e. Amount of interaction; 4. Discipline: authoritative is good, authoritarian or permissive is bad, 4a. Negative emotion or lack of involvement (cultural and gender issues vary), 4b. Clear standards set, rules enforced, and encouragement offered, 4c. Discussion, negotiations, and independence; 5. Parent involvement, 5a. Basic obligations for families to build positive home conditions that support learning, 5b. School-home communications about school programs and children's progress, 5c. Involvement at school, 5d. Involvement in learning activities at home (monitoring, discussing, and helping with homework), 5e. Involvement in decision making at school—shared governance (Sandra Christenson, 1992).

Fig. 1 (continued).

individual students' classroom behavior. Observer training of 4–5 days on the EBASS was conducted with College of Menominee Nation students by Juniper Gardens staff, with all observers having to pass a coding reliability test. These observations were conducted before FAST, during FAST, and after FAST, for a total of six times per child. Unfortunately, however, because of the expense and intrusiveness of this assessment no EBASS data were collected at follow up.

*Curriculum-based measurement (CBM).* CBM was the technique used for measuring students' performance on academic skills and curriculum materials valued by individual schools. CBM assessment materials were created collaboratively with each participating school to appropriately represent the material on which students were expected to gain mastery. CBM data were therefore conceptualized as culturally sensitive indicators of performance. CBM was also regarded as a technique that has the ability to show sensitivity to short-term gains in achievement, making it even more useful as an outcome measure of academic achievement for the research project.

Trained individuals from the University of Wisconsin, Madison and the College of Menominee Nation administered school-based, grade-level appropriate academic performance probes to all participating students in the areas of mathematics computation and oral reading fluency. The academic subject areas of oral reading fluency and mathematics computation have been most thoroughly researched in regard to CBM (Shapiro, 1996) and have been found to be reliable and valid measures of academic achievement. Based on these considerations, mathematics computation and oral reading fluency were selected as the academic outcome measures.

To demonstrate math achievement, students completed two pages of computation problems in a timed assessment. To demonstrate reading achievement, students read aloud three passages from their textbook for one min each. Math probes were administered in small groups and reading probes were individually administered. Probes were scored for digits/words correct per minute, as appropriate, with the design and scoring procedures following those developed by Shinn (1989) and Shapiro (1996). Administrators assessed CBM performance prior to administration of the FAST program, immediately following the completion of the FAST program, and at 1-year follow-up points.<sup>1</sup>

The Social Skills Rating System (SSRS; Gresham & Elliott, 1990) is a multi-rater instrument that measures children's social skills, behavior problems, and academic competence. The Academic Competence subscale of the SSRS was used as another measure of academic functioning. The Academic Competence subscale contains nine items that request teachers to compare the child being rated to other students in the classroom. Domains rated include overall academic performance, reading, mathematics, motivation, parental encouragement, intellectual functioning, and classroom behavior. The SSRS has been standardized with some American Indian groups and has respectable reliability and validity (Powless & Elliott, 1993).

*Behavior measures: teacher and parent perceptions of child adjustment.* Broad-band standardized rating scales, including the CBCL (Achenbach, 1991), Teacher Report Form (TRF; Achenbach, 1991), and the SSRS (Gresham & Elliott, 1990) were used to assess overall social and behavioral outcomes. The CBCL and TRF are parent- and teacher-completed rating scales consisting of 120 items each. The CBCL and TRF are intended to measure problem behaviors that a child may exhibit at home and at school. The subscales measure acting-out (externalizing) behaviors (e.g., Delinquent, Aggressive), internalizing behaviors (e.g., Withdrawn, Somatic Complaints, Anxious/Depressed), and other problem behaviors (e.g., Thought Problems, Social Problems, and Attention Problems). Using a three-point rating scale, parents and teachers indicate the extent to which each item describes a child's behavior within the past 6 months (0=not true, 1=sometimes or somewhat true, 2=very true or often true).

The SSRS has a parent and teacher version consisting of 52 and 57 items, respectively. The SSRS measures Social Skills and Problem Behaviors (the teacher version also measures Academic Competence, as was described in the previous section). Parents and teachers rate how often a child exhibits certain behaviors (0=never, 1=sometimes, 2=often). Social skills measured on the SSRS include Cooperation, Assertion, and Self-control. Externalizing, Internalizing, and Hyperactive behaviors are measured on the Problem Behaviors subscale. The SSRS, CBCL, and TRF were useful in providing norm-referenced measures of children's overall behavioral functioning at home and in the classroom.

<sup>1</sup> Examples of reading and mathematics probes, along with the administration and scoring guidelines, are available from the authors on request.

### Data analysis

Across the seven cycles, all 50 students who participated in the FAST program and whose parents attended at least “some” of the eight weekly meetings were included in the analysis. At the same time, not all of the FAST families attended six or more of the weekly meetings—the number required to “graduate” from the program. Across cycles, the number of FAST graduates was 40, or 80%, with individual cycle graduation rates ranging from 50% to 100%. It was found that cycle graduation rates were not statistically related to selected outcome measures. Consequently, for purposes of a more conservative assessment of program impact and generalizability, the results reported here are based on all 50 FAST participants and their matched controls in “intent-to-treat” analyses (Shadish, Cook, & Campbell, 2002, p. 320). In all analyses, the FAST and Control students within a pair are considered to be “yoked,” in the sense that if one pair member’s data were not available (usually due to parent nonresponse or mobility resulting in student/parent inaccessibility), then the data from the other pair member were not included in the analysis. Although there are problems of selective attrition here (as in any longitudinal study), of the various analytic alternatives, this option was regarded as the least program-biasing way of interpreting the results.

The primary analyses consisted of matched FAST-Control changes on the various behavior and academic measures from: (a) pretest to the immediate posttest (i.e., immediately following the 8-week FAST implementation), and which is referred to here as Post 1; and (b) pretest to the 9- to 12-month follow-up, referred to here as Post 2. In these two-period repeated-measures comparisons of FAST and Control participants, the variance associated with “cycles” was statistically removed. In addition, because the seven cycles comprised the independent units of treatment implementation (i.e., within each cycle, the FAST program involved a single group of non-independent entities), the most credible FAST-Control comparisons are those based on what we call “cycle level” analyses (Levin & O’Donnell, 1999). Results based on less appropriate (and less conservative) “student level” analyses are also reported primarily as descriptive auxiliary information. Finally, the two curriculum-based measures (reading and math) differed across cycles (separate measures were developed for kindergarten students) and from year to year (pretest to follow-up). As a result, all raw scores were standardized relative to the appropriate pretest mean and standard deviation for the particular cycle and grade level.

All statistical conclusions reported in this document are based on a Type I error probability of .05, one-tailed. Directional comparisons were conducted to increase statistical power, and they were deemed justifiable based on the FAST program’s theoretical rationale and associated supporting empirical data from previous FAST evaluations.<sup>2</sup> In the primary cycle-level analyses, reported effect sizes ( $ds$ ) are defined as the difference between FAST and Control students’ mean changes, divided by the pooled

<sup>2</sup> The FAST Practice Profile and other FAST research information are available from Lynn McDonald, The FAST Project, Wisconsin Center for Education Research, 1025 West Johnson Street, University of Wisconsin-Madison, WI 53706, [mrmcdona@facstaff.wisc.edu](mailto:mrmcdona@facstaff.wisc.edu). Please also refer to the FAST website: <http://www.wcer.wisc.edu/FAST>.

Table 2

FAST attendees vs. matched controls (pretest to immediate posttest changes)

Measure	Pre		Post 1		Change			F-Ratio/Level	
	Cont.	FAST	Cont.	FAST	Cont.	FAST	Diff (F-C)	Cycle	Student
<i>Child Behavior Checklist: Teacher (N=50 pairs, 7 cycles)<sup>a</sup></i>									
Internalizing	50.4	50.8	49.5	51.6	−.9	.8	1.7	2.57	1.44
Externalizing	53.9	56.5	56.4	55.5	2.5	−1.0	−3.5	2.69	<b>4.65</b>
Withdrawn	54.7	54.6	53.9	56.3	−.7	1.7	2.4	5.85	4.50
Somatic complaints	53.5	54.5	52.8	54.3	−.7	−.2	.5	.10	.12
Anxious/depressed	54.1	54.1	54.0	54.2	−.1	.1	.2	.02	.03
Social problems	55.0	55.4	55.2	55.3	.2	−.1	−.3	.04	.07
Thought problems	52.0	54.3	52.6	53.9	.6	−.4	−1.0	.46	.69
Attention problems	54.0	56.5	54.9	56.6	.9	.1	−.8	.41	.58
Delinquent behavior	56.2	56.3	57.9	56.6	1.7	.3	−1.4	.52	.96
Aggressive behavior	55.7	59.0	59.1	57.1	3.4	−2.0	−5.4	<b>5.52</b>	<b>11.00</b>
<i>Child Behavior Checklist: Parent (N=19 pairs, 6 cycles)<sup>a</sup></i>									
Internalizing	51.5	50.7	50.2	45.3	−1.3	−5.4	−4.1	2.30	1.10
Externalizing	51.8	51.8	49.2	49.6	−2.7	−2.3	.4	.02	.02
Withdrawn	54.4	55.5	54.1	52.1	−.4	−3.4	−3.0	<b>4.16</b>	1.89
Somatic complaints	52.1	53.3	52.8	52.0	.6	−1.3	−1.9	.86	.91
Anxious/depressed	55.2	54.0	53.9	51.7	−1.4	−2.3	−.9	.78	.21
Social problems	55.4	55.6	55.1	52.2	−.3	−3.5	−3.2	3.00	1.94
Thought problems	57.5	53.0	55.7	53.3	−1.8	.3	2.1	1.72	.47
Attention problems	56.2	54.6	55.7	53.8	−.5	−.9	−.4	.02	.01
Delinquent behavior	54.1	59.1	53.6	55.7	−.4	−3.5	−3.1	1.17	2.61
Aggressive behavior	55.3	54.4	53.4	52.9	−1.9	−1.5	.4	.02	.04
<i>Social Skills Rating System: Teacher (49–50 pairs, 7 cycles)</i>									
Social skills <sup>b</sup>	94.9	95.3	97.3	96.3	2.4	1.0	−1.4	.64	.98
Problem behavior <sup>a</sup>	100.4	103.5	104.0	104.1	3.6	.6	−3.0	.85	1.55
Acad. competence <sup>b</sup>	95.3	94.1	95.7	94.1	.3	−.0	−.3	.24	.09
<i>Social Skills Rating System: Parent (23 pairs, 7 cycles)</i>									
Social skills <sup>b</sup>	91.8	85.0	98.5	89.6	6.7	4.6	−2.1	.20	.22
Problem behavior <sup>a</sup>	105.5	100.7	101.5	95.9	−4.0	−4.8	−.8	.05	.03
<i>Family Measures (20–24 pairs, 6 cycles)<sup>b</sup></i>									
Cohesiveness	39.8	36.8	40.5	36.0	.7	−.8	−1.4	.32	.76
Adaptability	22.1	21.9	23.6	23.2	1.5	1.3	−.2	.13	.03
Family support	14.7	15.1	13.6	13.5	−1.1	−1.6	−.5	.12	.09
<i>Curriculum-Based Measures (40 pairs, 7 cycles)<sup>b</sup></i>									
Reading	50.1	48.1	56.8	54.6	6.6	6.5	−.1	.01	.01
Math	50.4	47.8	53.8	53.4	3.5	5.7	2.2	1.15	1.14
Measure	Pre		Mid		Change			F-Ratio/Level	
	Cont.	FAST	Cont.	FAST	Cont.	FAST	Diff (F-C)	Cycle	Student
<i>Ebass Measures (43 pairs, 7 cycles)</i>									
Academic <sup>b</sup>	39.6	36.2	41.7	40.9	2.1	4.7	2.6	.28	.26
Task Management <sup>b</sup>	54.1	51.3	55.2	50.7	1.1	−.6	−1.7	.08	.06

Table 2 (continued)

Measure	Pre		Mid		Change			F-Ratio/Level	
	Cont.	FAST	Cont.	FAST	Cont.	FAST	Diff (F-C)	Cycle	Student
Competing <sup>a</sup>	14.8	16.8	12.9	11.3	-1.9	-5.5	-3.6	.96	1.08
Measure	Pre		Post 1		Change			F-Ratio/Level	
	Cont.	FAST	Cont.	FAST	Cont.	FAST	Diff (F-C)	Cycle	Student
<i>Ebass Measures (40 pairs, 7 cycles)</i>									
Academic <sup>b</sup>	40.3	36.4	34.3	32.6	-6.0	-3.8	2.2	.22	.13
Task management <sup>b</sup>	54.8	51.8	57.5	54.3	2.7	2.5	-.2	.00	.00
Competing <sup>a</sup>	12.5	17.7	9.2	13.3	-3.3	-4.5	-1.2	.10	.09

Mean differences and corresponding F-ratios in bold indicate statistically greater improvements ( $p < .05$ ) for FAST students.

<sup>a</sup> Higher scores represent poorer behavior/performance.

<sup>b</sup> Higher scores represent better behavior/performance.

within-conditions standard deviation of pretest cycle means. In the auxiliary student-level analyses,  $ds$  are defined as the same mean difference, divided by the pooled within-conditions, within-cycles pretest standard deviation. Because of the large number of statistical tests conducted, and the Type 1 error probability associated with each, relatively more attention will be paid here to overall statistical patterns (rather than to the outcomes for individual measures). Similarly, because of the evidence “credibility” reasons stated above, more attention will be paid here to the cycle-level results (rather than to the student-level results).

## Results

### *FAST participants vs. matched controls*

#### *Immediate posttest*

For most measures, mean pretest, immediate posttest, and change data associated with the 50 FAST participants and their matched controls are reported in Table 2, along with the statistical tests of FAST-Control change differences. For the EBASS measures, the data reported correspond to pretest, mid-program (approximately 4 weeks), and immediate posttest (8 weeks) observations.<sup>3</sup>

From Table 2, it can be seen that of the various behavior and academic measures reported, two were associated with greater cycle-level improvement for FAST attendees on

<sup>3</sup> In all analyses conducted, two measures would have been associated with statistical differences in the opposite direction (i.e., favoring Control participants): on the teacher Withdrawn scale for Post 1, and on the parent Attention Problems scale for Post 2. Ironically, on both of these measures the teacher- and parent-derived mean ratings are in complete disagreement. Specifically: (1) whereas on the immediate posttest teachers rated Control students as having become less withdrawn, parents rated FAST students as having become less withdrawn; and (2) whereas at 9–12 month follow-up parents rated Control students as having fewer attention problems, teachers rated FAST students as having fewer attention problems.

the immediate posttest: (1) the Aggressive Behavior scale of the teacher form of the CBCL, where FAST students were rated as having improved by an average of 2.0 points, compared to an average worsening of 3.4 points by matched controls,  $d=1.20$ , more than a one standard-deviation difference; and (2) the Withdrawn scale of the corresponding parent form of the CBCL, where FAST students' rated mean improvement of 3.4 points was statistically higher than the 0.4-point improvement of controls,  $d=.87$ . In the less-conservative student-level analyses, teachers similarly indicated greater FAST improvement on the Aggressive Behavior scale,  $d=.68$ ; and, in addition, teachers perceived FAST students to have fewer Externalizing behaviors immediately following the intervention,  $d=.36$ . Note that no program-related differences emerged on any of the SSRS measures (both teacher and parent forms), on the in-class EBASS observational measures, or on either of the curriculum-based measures.

#### *Follow-up*

**Table 3** reported the 9- to 12-month follow-up data for FAST and matched control students. On most of the measures, changes from pretest to follow-up (Post 2) are provided. For the two teacher-rating instruments (CBCL and SSRS), however, only follow-up means are given due to the fact that pretest and follow-up ratings were generally associated with different teachers. For those data, repeated-measures analyses of covariance were conducted, controlling for cycle, with the matched treatment pairs representing the repeated measure and pretest teacher ratings comprising a separate covariate for the FAST and Control students within each pair. Similar repeated-measures analyses of covariance were also conducted on the reading and math curriculum-based measures, insofar as the tests administered at Post 2 were not the same ones that had been administered at both Pre and Post 1.

From the bold values in **Table 3**, it can be seen that two measures, favoring FAST participants, are statistically significant at the more stringent cycle-level analyses. Specifically, on the parent version of the CBCL, FAST participants retained their less Withdrawn status that had been observed on the immediate posttest (mean improvement difference of 6.6,  $d=1.92$ , or almost two standard deviations). Evidence for greater "overall" FAST student improvement on the teacher CBCL can be seen in the 10 descriptive individual scale mean differences, all of which are negative (i.e., all 10 favor FAST students). Although an assumption of inter-scale independence may be questionable here, a binomial test applied to those signed outcomes is associated with a one-tailed probability of less than .001. In addition, on the teacher SSRS scale FAST students were assessed as having greater Academic Competence than Control students (adjusted mean difference of 5.6 points,  $d=.77$ ).

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#### Notes to Table 3:

For the two teachers measures, Post 2 scores and means are covariate-adjusted (by pretest scores) because different teachers were involved in the two ratings. The same is true for the two curriculum-based measures (expressed in standard-score units, based on pretest means and standard deviations) because different grade-level content comprised the pretest and follow-up. Mean differences and corresponding F-ratios in bold indicate statistically greater improvements ( $p<.05$ ) for FAST students.

<sup>a</sup> Higher scores represent poorer behavior/performance.

<sup>b</sup> Higher scores represent better behavior/performance.

Table 3  
FAST attendees vs. control (9–12 month follow-up)

Measure	Post 2			F-Ratio/Level						
	Cont.	FAST	Diff (F-C)	Cycle	Student					
<i>Child Behavior Checklist: Teacher (26 pairs, 5 cycles)<sup>a</sup></i>										
Internalizing	54.4	48.9	<b>−5.5</b>	1.34		<b>3.85</b>				
Externalizing	59.9	55.5	−4.4	2.29		2.12				
Withdrawn	55.3	54.1	−1.2	.18		.70				
Somatic complaints	56.8	54.9	−1.9	.70		.71				
Anxious/depressed	57.1	52.4	<b>−4.7</b>	1.44		<b>6.53</b>				
Social problems	56.4	54.4	−2.0	.34		.97				
Thought problems	54.0	51.8	−2.2	.33		1.05				
Attention problems	58.3	52.9	<b>−5.4</b>	2.10		<b>5.55</b>				
Delinquent behavior	60.2	57.0	−3.2	.45		1.72				
Aggressive behavior	62.2	56.5	<b>−5.7</b>	1.82		<b>5.73</b>				
Measure	Pre		Post 1		Change		F-Ratio/Level			
	Cont.	FAST	Cont.	FAST	Cont.	FAST	Diff (F-C)	Cycle	Student	
<i>Child Behavior Checklist: Parent (N=11 pairs, 5 cycles)<sup>a</sup></i>										
Internalizing	52.3	54.6	50.6	49.7	−1.5	−4.9	−3.4	.94	.77	
Externalizing	50.8	53.4	48.9	50.1	−1.9	−3.4	−1.5	.22	.08	
Withdrawn	53.6	58.8	55.1	53.8	1.6	−5.1	<b>−6.6</b>	<b>4.99</b>	<b>8.70</b>	
Somatic complaints	52.6	54.4	52.2	52.3	−.4	−2.1	−1.7	1.69	.77	
Anxious/depressed	56.5	56.6	55.2	53.5	−1.3	−3.1	−1.8	.33	.36	
Social problems	56.3	57.6	55.0	55.2	−1.3	−2.4	−1.1	.10	.12	
Thought problems	57.9	51.1	57.9	53.2	.1	2.1	2.0	.56	.73	
Attention problems	60.0	55.4	55.7	54.1	−4.3	−1.3	3.0	8.05	1.55	
Delinquent behavior	54.6	56.3	54.3	57.0	−.3	.7	1.0	.09	.05	
Aggressive behavior	55.7	55.6	53.4	52.3	−2.4	−3.3	−1.0	.12	.17	
Measure	Post 2			F-Ratio/Level						
	Cont.	FAST	Diff (F-C)	Cycle	Student					
<i>Social Skills Rating System: Teacher (26 or 27 pairs, 5 cycles)</i>										
Social Skills <sup>b</sup>	95.6	97.5	1.9	.44						<b>.51</b>
Problem Behavior <sup>a</sup>	106.4	98.0	<b>−8.4</b>	2.73						<b>6.63</b>
Academic Competence <sup>b</sup>	91.6	97.2	<b>5.6</b>	<b>5.92</b>						<b>3.38</b>
Measure	Pre		Post 1		Change		F-Ratio/Level			
	Cont.	FAST	Cont.	FAST	Cont.	FAST	Diff (F-C)	Cycle	Student	
<i>Social Skills Rating System: Parent (9 pairs, 5 cycles)</i>										
Social skills <sup>b</sup>	86.0	85.9	92.9	94.2	6.9	8.2	1.3	.03	.23	
Problem behavior <sup>a</sup>	109.3	103.7	103.3	99.9	−6.1	−3.8	2.3	.16	.37	
Measure	Post 2			F-Ratio/Level						
	Cont.	FAST	Diff (F-C)	Cycle	Student					
<i>Curriculum-Based Measures (24–26 pairs, 5 cycles)<sup>b</sup></i>										
Reading	1.52	1.19	−.33	.52						<b>.78</b>
Math	1.19	.80	<b>−.39</b>	.54						<b>1.67</b>

Table 4

Parent, child, and teacher reports on the FAST program

*PARENTS: What did you think about FAST?*

- I enjoyed being with other families, and everyone's children, and when we had one on one (time); it was a very good program to be in.
- We looked forward to attending each week, and to have the whole family included.
- We had a very good time.
- I would recommend it to other families. I hope this group continues, and other people can join.
- We liked creating pictures out of nothing with our imaginations during art time and having parent group time to discuss anything on my mind.
- Cooking tips from other parents when they brought the meal; very informational in all areas; "living skills".
- Making the meal with my daughter for everyone. We haven't kept up with the monthly meetings/get together, but we do see the other parents and feel a camaraderie with them now.
- Actually taking the time to sit down with my child and watch him play.
- I enjoyed eating supper with the other families.
- FAST graduation: we put on a skit that was about saying no to drugs. We got to bring extended family too, which was fun and encouraging.
- FASTWORKS: a feeling that will stay with me and be remembered is when we call and talk about meetings or see each other and hug. As a FAST parent liaison now, it is fun the way they recognized my voice now when I call. There's so much I could share, I could practically write a book.
- The family outings. Actually sitting down and listening to each other.

*CHILDREN: They were asked: what did you think about FAST?*

- It was fun. The meetings were great. I liked how everyone sang to the FAST song. It was exciting when my family won the raffle there.
- Playing with the Toys and outside was fun.
- Artwork and the food.
- Making the family flag; she liked that a lot.
- Feeling special, even for a short time (she is the fifth of five and sometimes with the older children getting so much attention in sports, she felt left out. But now I noticed her ability to speak up and let me know she needs her "special time" alone with me, or her father.
- Games.
- Going on trips together.
- He enjoyed the drawing portion of FAST. He also enjoyed the one on one playtime.
- When we had special play.

*TEACHERS: What did you think about the FAST program?*

- My overall impression is positive. It was great to see families doing things together and realizing that they can enjoy interacting with each other.
- My overall impression of the FAST program is that the goals and the objectives are positive.
- I am impressed by how the program is working with parents to emphasize the importance of education.
- I thought it was a positive program. It brought families together.
- It gave these families opportunities to share fun family oriented activities.
- During the years 1997–1998, when I was a 3rd grade teacher and some of my students were involved in the program I thought it was extremely helpful for the kids and their families. I saw the kids excited with anticipation the day of their evening meeting with families.
- This year, the FAST students and families in my class have really benefited a lot. There seems to be more participation by those families in school events and assistance with homework and general behavior. The three students from my room have increased positive attitudes towards school, and their behavior has improved.
- I thought it was a positive program. It brought families together. It gave these families opportunities to share fun family orientated activities. The children appear happier and more self-confident.

Table 4 (continued)

**TEACHERS: What did you think about the FAST program?**

- FAST is a good program. I think it gives parents a “special” time to spend with their child. They also learn effective parenting techniques.
- The students and parents that actively participate seem to make positive gains towards schools. Especially in non-academic things, like coming to school and feeling comfortable with school. The children have greater enthusiasm for school, and try to control behaviors.

At the less rigorous student level, the following teacher CBCL scale outcomes are “indicative” of better long-term behaviors by FAST students: Internalizing ( $d=.51$ ), Anxious/Depressed ( $d=.78$ ), Attention Problems ( $d=.92$ ), and Aggressive Behaviors ( $d=.70$ ). Student-level analyses also support the just-reported cycle-level conclusions favoring FAST students on the parent CBCL Withdrawn scale ( $d=1.03$ ) and on the teacher SSRS Academic Competence scale ( $d=.45$ ). In addition, at the student-level teachers regarded FAST students as exhibiting fewer Problem Behaviors than their Control counterparts ( $d=.61$ ). Once again, no program-related differences were obtained on either the parent SSRS scales or on the two curriculum-based measures.

**Ancillary data**

In the present study, seven cycles of multi-family groups met for 8 weeks, each with children and families from their own Nations. The average number of families that graduated from each FAST cycle was seven. To become a certified FAST site, one must graduate five families. Each school staff member noted that there was less parent involvement than had been wished for at the respective schools prior to implementation of FAST. During the study, parent involvement increased dramatically at each school: if a family attended just one FAST session, 80% completed the 8-week program cycle and participated in a ceremonial family graduation event held at the school.

Parents and children generally reported satisfaction with their experience. Table 4 presents parent, child, and teacher reports on the FAST program. In one community, a group of FAST parent graduates decided as a group to go to the School Board. Parents prepared their statements and petitioned their School Board for more FAST sessions to be offered at their school. Two women, one from the different Nations, asked to participate in a national training seminar to become certified FAST trainers. Since that time, one has trained other FAST teams in another American Indian community in North Carolina. The College of Menominee Nation wrote a proposal and presented it to a federal agency in Washington D.C., requesting that they be funded to create a FAST National Training Center in their area.

**Discussion**

The goals of our research were to: (a) adapt the FAST Program in partnership with the College of Menominee Nation so it would fit the cultural and ecological contexts of three American Indian nations; (b) increase academic competence among American Indian children; and (c) reduce the problem behaviors that have been found to be associated with

school dropout and that are especially prevalent with the American Indian children targeted in this research project. Although we were able to achieve only modest success with these three goals, we present some positive implications for future research on the FAST program.<sup>4</sup>

The FAST multi-family group program was adapted with three American Indian Nations in Wisconsin but proved to be quite challenging. On the positive side, of the 50 families that attended FAST meetings at least once, 40 graduated (80%) from the seven FAST cycles that were conducted over the 3 years. Engagement and retention rates for involvement in children's mental health clinics have been studied by Kazdin (2001); if a child comes once, expected levels of drop out are 40-60%, and higher for children from marginalized, low-income families. Because graduation is contingent on attendance, this finding suggests that there was a basic level of acceptance of the FAST program among students and parents in this community. Surveys of FAST parents and teachers also showed general consumer satisfaction. Thus, there were some indicators of success with cultural adaptation.

FAST has many aspects of the multi-family group process (60%) that can be adapted to fit local norms, as well as core standards (40%) that must be maintained to be certified as an "official" FAST program. FAST has been replicated with impressive retention rates across hundreds of schools in varying cultural contexts, including rural as well as inner-city environments, and in Canada, Australia, and Germany. One reason why FAST has been so effective in consistently producing an average of 80% graduation rates of low income, diverse families who attend at least one session may be attributable to the program's rule of cultural representation. One of the core components of FAST that cannot be changed is that each FAST team must include individuals who are representative of the families it serves. In this study, the parents and professionals who were trained to be on the collaborative FAST team were primarily tribal members representing the mono-cultural group of families. For example, FAST graduation ceremonies included tribal elders, drumming, and smudging rituals. This cultural representation at FAST sessions may have helped the child to experience a cultural continuity and "fit" between home and school. Issues of governance were also managed differently in each of the schools, as were teacher hiring priorities. In future research, it would be interesting to conduct analyses of the contrasting interactions that take place at these schools, taking into account the level of American Indian control and its impact on the school culture.

In the present study, we detected statistically significant teacher-reported differences between FAST and non-FAST students' academic competence on the SSRS at our 1-year follow-up assessment. These standardized forms were completed by teachers one year later, who were blind to the research study assignment of students to condition, and included overall academic performance, reading, mathematics, motivation, parental encouragement, intellectual functioning and classroom behavior, with comparisons of that child to the others in the classroom. The effect size of  $d=.77$  came from a combination of improvement by the FAST children and reduced functioning of the control children.

<sup>4</sup> Because of cost and logistical considerations, EBASS measures were not collected at follow-up and so they are not referred to in this discussion.

Evidence from the curriculum-based student performance measures did not support this finding, however. Although the SSRS data by teachers are suggestive of improvement in academic functioning for FAST children, it was hoped that the more direct measures of academic performance would also have demonstrated positive outcomes following the intervention and at follow-up assessment. The primary reason for reliance on these curriculum-based measures is that they represent more direct samples of the reading and math curricula and are less likely to be influenced by various sources of artifact and bias that characterize self-report measures (Shapiro, 1996).

There are several possible reasons for the discrepancy between teacher assessments of FAST children and the reading and math measures. First, the FAST program has traditionally not been targeted at producing changes in academic performance. In fact, this project is one of the few FAST investigations that included systematic assessment of academic functioning in children exposed to the program. Second, improvements in academic competence may lag behind improvements in social functioning, which were more noticeable in our outcome assessment and discussed below. Some evidence for this interpretation can be gained from the finding of an increase in teachers' assessment of student academic competence on follow-up evaluation (Post 2) that was not present on the posttest assessment immediately following the FAST program (Post 1). Third, it is possible that the EBASS at Post 1 and CBM assessments at Post 1 and Post 2 may not have been sensitive to changes in academic functioning. Future research should include a more comprehensive academic assessment on such measures as the Academic Competence Evaluation Scales (DiPerna & Elliott, 2000). These scales include both an academic skill and academic enablers assessment to expand understanding of the concept of academic competence.

There is growing recognition that intervention programs for children should target both academic and social competencies (Adelman & Taylor, 1998). It is also important to measure outcomes in each of these domains in intervention research. Researchers have reported that American Indian children, who begin school by functioning at the national norms, are falling behind national norms on standardized tests by age 8—paralleling the finding that African American and white students do not differ in reading competence in the first grade, but do differ by fourth grade (Nettles & Perna, 1997). The mystery to some scholars is that students begin with more equity in the first grade and that the gap actually widens by fourth grade. These sorts of trends draw attention to the educational institutions entrusted with helping children to learn. Is it possible that something about the school environment for American Indian children can be detrimental to the child's development? Are there historical factors that contribute to the accumulating academic disadvantage of these children? Such issues should be examined in future research.

The finding of teacher-reported initial reduction in FAST students' aggressive behavior on the CBCL is important in light of the long-term negative consequences of these problems for all children and within the American Indian population, in particular. Similarly, parents' posttest (both immediate and 1-year follow-up) CBCL reports of FAST participants having become relatively less withdrawn are noteworthy. Moreover, based on the consistent pattern of differences observed on the 10 individual scale means, there was evidence of greater overall FAST student improvement on the follow-up teacher CBCL, as primarily reflected by the internalizing, anxious/depressed, attention problems, and

aggressive behavior scales in the student-level analyses. On the student level, changes at one year reported by teachers showed large effect sizes which distinguished FAST vs. control on six out of eleven scales: attention span problems ( $d=.92$ ), anxiety/depression ( $d=.78$ ), aggressive behavior ( $d=.70$ ), internalizing (on the CBCL) as well as problem behaviors ( $d=.45$ ) and academic competence ( $d=.61$ ) (on the SSRS). On these measures, control students unexpectedly tested at near and above clinical levels in the post-test, whereas FAST students did not. The apparent decline in the teacher CBCL ratings of control students' classroom behavior problems should be of concern to practitioners and researchers. Additional research, based on larger samples and precisely defined and measured mediating variables is warranted to attempt to replicate these findings and understand the potentially contributing causal factors. In contrast, on both the teacher and parent forms of the SSRS, we were not able to document any FAST student's posttest advantages with respect to students improving their social skills.

The reduction in problematic behaviors that *were* documented in this study may well be correlated with a reduction in school dropout. As this 3-year study focused on kindergarten through second grade, however, we do not yet have dropout data for the participants in this project. The school dropout rates for Native American children have been the highest of any students of color (Kasten, 1992). How can this problem be prevented? When do these problems begin? In this research project, we intervened with early elementary school-aged children because we thought that school-related problems started early. An early intervention to build protective factors by building multiple levels of positive relationships may be a critical antidote to the stresses of the American Indian child in school.

In the field of prevention, the recent literature suggests that a few protective factors (e.g., positive relationships) can outweigh multiple risk factors for children (Walker & Shinn, 2002). The present research evaluating the FAST program, which focuses on building protective factors, could help to explain some of these positive findings with American Indian children. With more strong relationships, the child can function with more resilience, despite the ongoing stresses in his/her life. Without the protective factors, which are systematically built into the multi-family group activity-based curriculum, the stresses in the life of the American Indian child (along with the risk factors) can compound to result in compromised learning in the classroom over time.

In light of both the teacher-perceived increase in academic competence and the decrease in selected behavior problems in school over time, FAST seemed to have at least some degree of positive impact on the children. The relationship-based, respectful engagement of the parents in early intervention work with multi-family groups may have made a modest difference in changing the trajectory of the child's development at school with these American Indian children. FAST seemed to function as an enhancer of school-related functioning by reducing certain classroom problem behaviors.

In previous research, it has been found that with FAST, some change occurs over the initial 8 weeks of multi-family groups. However, because the change is systemic, it takes time to show its long-term effect. FAST works to build positive relationships between the people who are central to the child's developmental social ecology. For example, FAST develops networks of support among parents with children of the same age attending the same schools. The positive FAST activities take place in the school after hours, with school representatives present. The school personnel meet the whole family of the child in a non-

classroom environment, and see them participate in positive multi-family group activities within the school building. Perhaps, these experiences contribute to a change in attitudes of the parents towards the school, as well as of the school personnel towards the parent. The family relationships, the peer relationships, the peer–family relationships, and the connections of the families to the schools—as well as the connections of the schools to the families—may all improve over time. The hope is that by changing the ecological system in which the American Indian child functions through FAST, a cooperative partnership between the schools and the families will appear. Such systemic change may result in improved classroom functioning for the child.

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