

Talking Talons Project, Site ID#: 531

Strategies for Success Supplemental Findings - 2009

Project Goal and Objectives:

Improve risk and protective factors, science attitudes and knowledge.

Description of Target Community:

Semi rural New Mexico public school students.

Evaluation Design and Sample Description:

Since all of the modules were new this year we chose D and E as most closely measuring the variables the Talking Talons Program is designed to impact. Not all students took the modules, this was based on availability and time constraints. Further review of the reliability and usefulness of these Modules will allow decisions about which instruments to utilize in the future.

Module D

Table 1: Sum Scale Scores, Reliabilities, and Significance Tests for Module D Scales

	Range	Pre-test Score	Cronbach's α	Post-test Score	Cronbach's α	t-value	Desired Outcome
Cooperation and Communication							
SFS Program Participants (n= 94)	0-9	6.68	.60	6.68	.70	0	☉
Comparison Group Participants (n= 34)	0-9	6.71	.37	7.14	.71	1.96(p=.054)	☉
Self-efficacy							
SFS Program Participants (n= 96)	0-9	7.31	.67	7.46	.76	-.89	☉
Comparison Group Participants (n= 37)	0-9	7.21	.70	7.21	.46	0	☉
Empathy							
SFS Program Participants (n= 97)	0-9	6.54	.86	6.65	.82	-.49	☉
Comparison Group Participants (n= 36)	0-9	7.42	.75	7.42	.80	0	☉
Problem Solving							
SFS Program Participants (n= 93)	0-9	6.46	.77	6.62	.82	-.63	☉
Comparison Group Participants (n= 33)	0-9	6.30	.73	6.36	.64	-.145	☉
Self-awareness							
SFS Program Participants (n=97)	0-9	2.23	One item	2.31	One item	-.87	☉
Comparison Group Participants (n= 37)	0-9	2.49	One item	2.51	One item	-.25	☉
Goals and Aspirations							
SFS Program Participants (n= 97)	0-9	8.30	.44	8.35	.79	-.37	☉
Comparison Group Participants (n= 37)	0-9	8.05	.21	7.81	.72	.696	☉

Note: *p \leq .05, **p \leq .01, ***p \leq .001.

Table 2: Mean Scale Scores, Reliabilities, and Significance Tests for Module D Scales

	Range	Pre-test Mean	Cronbach's ∞	Post-test Mean	Cronbach's ∞	t-value	Desired Outcome
Cooperation and Communication							
SFS Program Participants (n= 94)	0-3	2.22	.000	2.24	.000	-.382	☐
Comparison Group Participants (n= 98)	0-3	2.23		2.24		.04	☐
Self-efficacy							
SFS Program Participants (n= 98)	0-3	2.42	.000	2.46	-.791	.000	☐
Comparison Group Participants (n= 37)	0-3	2.40		2.40		0	☐
Empathy							
SFS Program Participants (n= 98)	0-3	2.19	.000	2.20	.000	-.217	☐
Comparison Group Participants (n= 37)	0-3	2.45		2.44		.138	☐
Problem Solving							
SFS Program Participants (n= 98)	0-3	2.16	.000	2.19	.000	-.391	☐
Comparison Group Participants (n= 37)	0-3	2.07		2.07		.035	☐
Self-awareness							
SFS Program Participants (n=97)	0-3	2.23	.000	2.31	.000	-.872	☐
Comparison Group Participants (n= 37)	0-3	2.48		2.51		-.26	☐
Goals and Aspirations							
SFS Program Participants (n=98)	0-3	2.76	.000	2.78	.000	-.423	☐
Comparison Group Participants (n=37)	0-3	2.68		2.60		.696	☐

Note: *p \leq .05, **p \leq .01, ***p \leq .001.

Module E

Table 1: Sum Scale Scores, Reliabilities, and Significance Tests for Module E Scales

Participant's Group	Range	Pre-test Score	Cronbach's α	Post-test Score	Cronbach's α	t-value	Desired Outcome
Caring Relationships							
SFS (n= 73)	0-9	5.76	.78	6.39	.88	-2.28* p=.025	☐
High Expectations: Adults in School							
SFS (n= 76)	0-9	7.09	.84	7.32	.92	-1.07	☐
Meaningful Participation: In the School							
SFS (n= 77)	0-9	5.25	.78	5.57	.77	-1.07	☐
Caring Relationships: Adults in Home							
SFS (n=79)	0-9	7.41	.79	7.53	.89	-.492	☐
High Expectations: Adults in Home							
SFS (n= 81)	0-9	8.27	.70	8.28	.87	-.09	☐
Meaningful Participation: In the Home							
SFS (n=77)	0-9	6.40	.68	6.92	.81	-2.20* p=.03	☐
Caring Relationships: Adults in Community							
SFS (n= 79)	0-9	7.42	.90	7.62	.88	-.41	☐
High Expectations: Adults in Community							
SFS (n=75)	0-9	7.76	.92	7.81	.84	-.21	☐
Meaningful Participation: In the Community							
SFS (n=75)	0-9	5.46	.38	5.62	.58	-.54	☐
Caring Relationships: Peers							
SFS (n= 79)	0-9	6.53	.91	7.55	.87	-3.85** p<.01	☐
High Expectations: Pro-social Peers							
SFS (n= 79)	0-9	6.96	.60	6.54	.59	1.97	☐

Note: *p \leq .05, **p \leq .01, ***p \leq .001.

Table 2: Mean Scale Scores, Reliabilities, and Significance Tests for Module E Scales

Participant's Group	Range	Pre-test Score	Cronbach's α	Post-test Score	Cronbach's α	t-value	Desired Outcome
Caring Relationships							
SFS (n= 79)	0-3	1.93	.000	2.14	.000	-2.76** p=.007	☉
High Expectations: Adults in School							
SFS (n=79)	0-3	2.35	.000	2.42	.000	-.92	☉
Meaningful Participation: In the School							
SFS (n=79)	0-3	1.74	.000	1.87	.000	-1.23	☉
Caring Relationships: Adults in Home							
SFS (n=81)	0-3	2.45	.000	2.51	.000	-.67	☉
High Expectations: Adults in Home							
SFS (n= 81)	0-3	2.75	.000	2.76	.000	-.09	☉
Meaningful Participation: In the Home							
SFS (n= 80)	0-3	2.14	.000	2.31	.000	-2.16* p=.034	☉
Caring Relationships: Adults in Community							
SFS (n= 79)	0-3	2.49	.000	2.54	.000	-.41	☉
High Expectations: Adults in Community							
SFS (n= 79)	0-3	2.57	.000	2.61	.000	-.49	☉
Meaningful Participation: In the Community							
SFS (n= 81)	0-3	1.80	.000	1.86	.000	-.72	☉
Caring Relationships: Peers							
SFS (n=81)	0-3	2.16	.000	2.50	.000	-3.96** p<.00	☉
High Expectations: Pro-social Peers							
SFS (n=81)	0-3	2.31	.000	2.19	.000	1.66	☉

Note: *p \leq .05, **p \leq .01, ***p \leq .001.

Discussion of Findings

Note any observed trends in demographics described in Module A that might contribute to your results. Are there differences between program participants and comparison group participants?

The sample size for the control group is much smaller and was not a perfect control group (as in matching demographics and scores at pretesting).

Compare the pre-test and post-test sum scale scores for the six scales in Module D (*Cooperation and Communication, Self-efficacy, Empathy, Problem Solving, Self-awareness and Goals and Aspirations*) by group membership and describe whether there is movement and in what direction. Does the t-statistic capture change at a statistically significant level? Based on the Cronbach's alpha for each measure, are the findings likely to be reliable?

No significant differences were found in Module D for although Cooperation and Communication was nearly significant for the control group. However, reliability for that scale varied quite a bit from pretest (.37) to posttest (.71) making any changes unreliable. Also, the mean scale scores were not significant at all.

Compare the pre-test and post-test mean scale scores for the six scales in Module D (*Cooperation and Communication, Self-efficacy, Empathy, Problem Solving, Self-awareness and Goals and Aspirations*) by group membership and describe whether there is movement and in what direction. Does the t-statistic capture change at a statistically significant level? Based on the Cronbach's alpha for each measure, are the findings likely to be reliable?

No significant differences were found in Module D for the mean scale scores. The Goals and Aspirations Scale has questionable reliability, but the rest are reasonable.

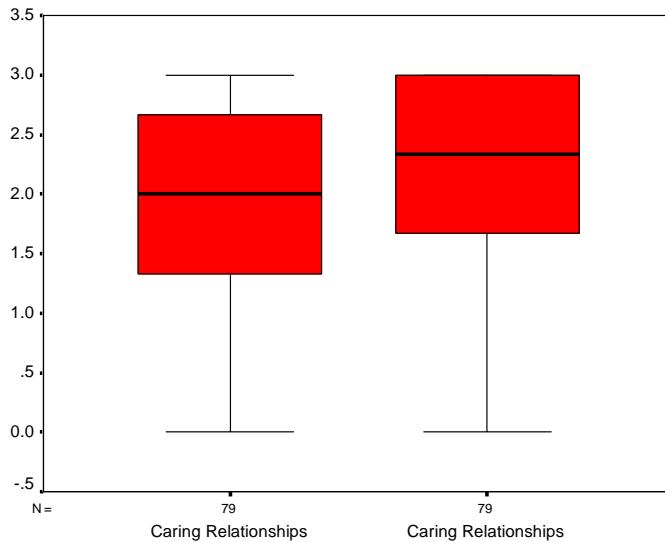
Compare the pre-test and post-test sum and mean scale scores for the eleven scales in Module E (*Caring Relationships, High Expectations: Adults in School, Meaningful Participation: In the School, Caring Relationships: Adults in Home, High Expectations: Adults in Home, Meaningful Participation: In the Home, Caring Relationships: Adults in the Community, High Expectations: Adults in the Community, Meaningful Participation: In the Community, Caring Relationships: Peers and High Expectations: Pro-social Peers*) by group

membership and describe whether there is movement and in what direction. Does the t-statistic capture change at a statistically significant level? Based on the Cronbach's alpha for each measure, are the findings likely to be reliable?

Three scales in the Module E had statistically significant changes. However, no control group was collected for these scales as the intention this year was to determine which of the Modules had higher reliability and matched the Talking Talons goals with more accuracy. Because a limited number of control subjects were available for the extra Modules they took only Module D.

The Caring Relationships scale had a statistically significant positive change in both the sum scale and mean scale scores. For the sum scale the pretest sum (5.76) was statistically lower than the posttest sum (6.39) ($t=-2.28$, $p=.025$). For the mean scale pretest scores (1.93) were significantly lower than posttest scores (2.14) ($t=-2.76$, $p<.01$). The reliability of this scale is good (.78-.88). Examination of the mean scores boxplot (see below) indicates this change is due to an overall positive shift rather than to outliers. **Participants in the Talking Talon's program had statistically higher (positive) Caring Relationships scores at posttest as compared to pretest.**

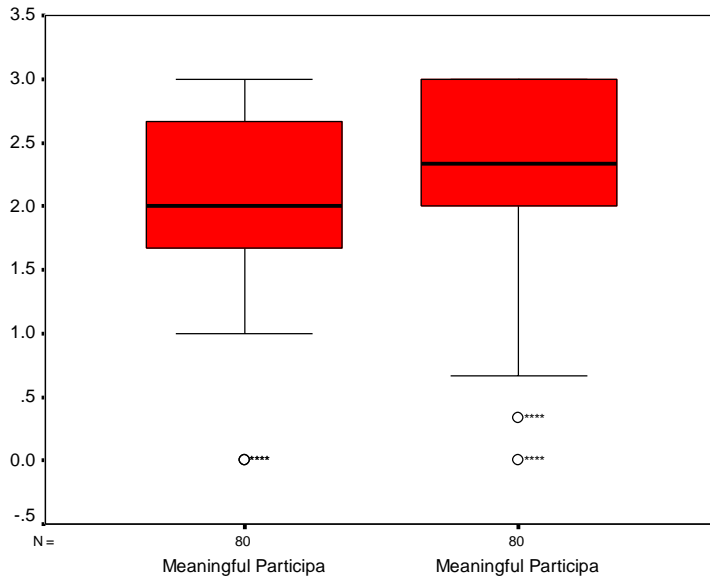
Figure 1 Boxplot Caring Relationship Mean Score Pre and Posttest



Meaningful Participation Home

The Meaningful Participation scale had a statistically significant positive change in both the sum scale and mean scale scores. For the sum scale the pretest sum (6.40) was statistically lower than the posttest sum (6.92) ($t=-2.20$, $p=.03$). For the mean scale pretest scores (2.14) were significantly lower than posttest scores 2.31) ($t=-2.16$, $p=.03$). The reliability of this scale is reasonable (.68-.81). Examination of the mean scores boxplot (see below) indicates this change is due to an overall positive shift rather than to outliers. **Participants in the Talking Talon’s program had statistically higher (positive) Meaningful Participation in the Home scores at posttest as compared to pretest.**

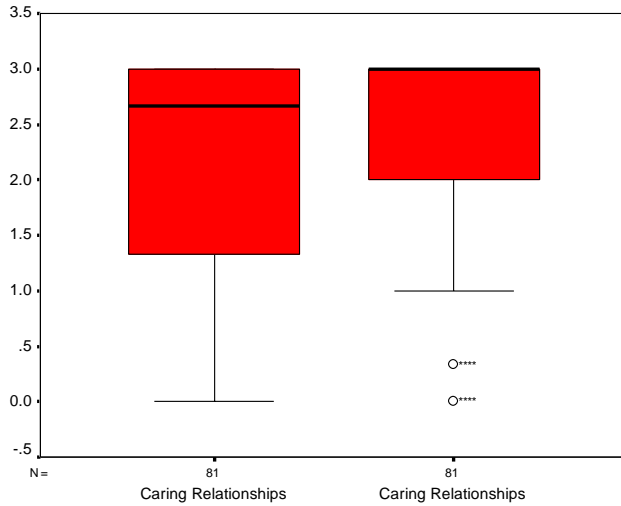
Figure 2 Boxplot Meaningful Participation in the Home Mean Score Pre and Posttest



Caring relationships peers

The Caring Relationship with Peers scale had a statistically significant positive change in both the sum scale and mean scale scores. For the sum scale the pretest sum (6.53) was statistically lower than the posttest sum (7.55) ($t=-3.85$, $p<.01$). For the mean scale pretest scores (2.16) were significantly lower than posttest scores (2.50) ($t=-3.96$, $p<.01$). The reliability of this scale is good (.87-.91). Examination of the mean scores boxplot (see below) indicates this change is due to an overall positive shift rather than to outliers. **Participants in the Talking Talon’s program had statistically higher (positive) Caring Relationship with Peers scores at posttest as compared to pretest.**

Figure 3 Boxplot Caring Relationship with Peers Mean Score Pre and Posttest



Since all of the modules were new this year we chose D and E as most closely measuring the variables the Talking Talons Program is designed to impact. Not all students took the modules, this was based on availability and time constraints. Because of the better reliability of these instruments over the previous SFS instrument we will add them to the instruments used in the following year. Module E particularly seems useful for our program.

