Community Place 2011-12 After School Program Data Summary

PREPARED FOR:
THE COMMUNITY PLACE OF GREATER ROCHESTER, INC.
145 PARSELLS AVENUE
ROCHESTER, NY 14609

BOHDAN S. LOTYCZEWSKI
CHILDREN'S INSTITUTE
UNIVERSITY OF ROCHESTER
274 N. GOODMAN STREET, SUITE D103
ROCHESTER, NY 14607

JULY, 2012

children's institute

STRENGTHENING SOCIAL AND EMOTIONAL HEALTH

Community Place 2011-12 After School Program
Data Summary

PREPARED FOR:
THE COMMUNITY PLACE OF GREATER ROCHESTER, INC.
145 PARSELLS AVENUE
ROCHESTER, NY 14609

BOHDAN S. LOTYCZEWSKI
CHILDREN'S INSTITUTE
UNIVERSITY OF ROCHESTER
274 N. GOODMAN STREET, SUITE D103
ROCHESTER, NY 14607

July, 2012

children's institute
STRENGTHENING SOCIAL AND EMOTIONAL HEALTH

274 N. Goodman Street, Suite D103
Rochester, New York 14607
(585) 295-1000

www.childrensinstitute.net

Technical Report and Works in Progress Series: Number T12-005

This report summarizes results obtained from after-school program participants served by the Community Place of Greater Rochester (CPGR) during the 2011-12 school year.

Measure

Teacher-Child Rating Scale 2.1 (T-CRS)
The T-CRS measures teachers' views of students' social and emotional competencies based upon the following four empirically derived scales:

1) **Task orientation** - Assesses skills needed to succeed in a structured learning environment.
2) **Behavior control -** Assesses skills in tolerating and adapting to limits.
3) **Assertiveness -** Measures interpersonal functioning and confidence.
4) **Peer social skills -** Measures popularity or likeability among peers.

T-CRS instruments were completed in three phases: October 2011 – December 2012, January – March, 2012, and May, 2012.

Return rates for T-CRS instrument varied by site and time of testing. As a result, complete data (all three times of testing) were unavailable for some students. Overall, 94 out of 217 students (43%) had complete T-CRS data. Additionally, 86 students (40%) had data from two out of three times of testing, consisting of Phases 1 and 2 or Phases 2 and 3, allowing them to be used in some of the analyses reported below.

Programs

The following programs provided data for the analyses included in this report:

- CASA 1-3
- CASA 4-6
- COLORS
- RASA
- SLA-YMD
- SLA-YMV

Ten students participated in both the RASA and COLORS programs. Their results will be reported in two ways. For analysis results which are presented by program, their scores will reported as part of both program groups, with scores from instruments completed by RASA staff included with the RASA results, and COLORS scores included with COLORS results. For reporting which includes all programs, scores will be averaged within phase for these ten students.

Presentation of Information within this Report

This program evaluation report is organized into three major sections:

- **Return Rates**
  - Information is reported regarding return rates for each time of testing and site/program.

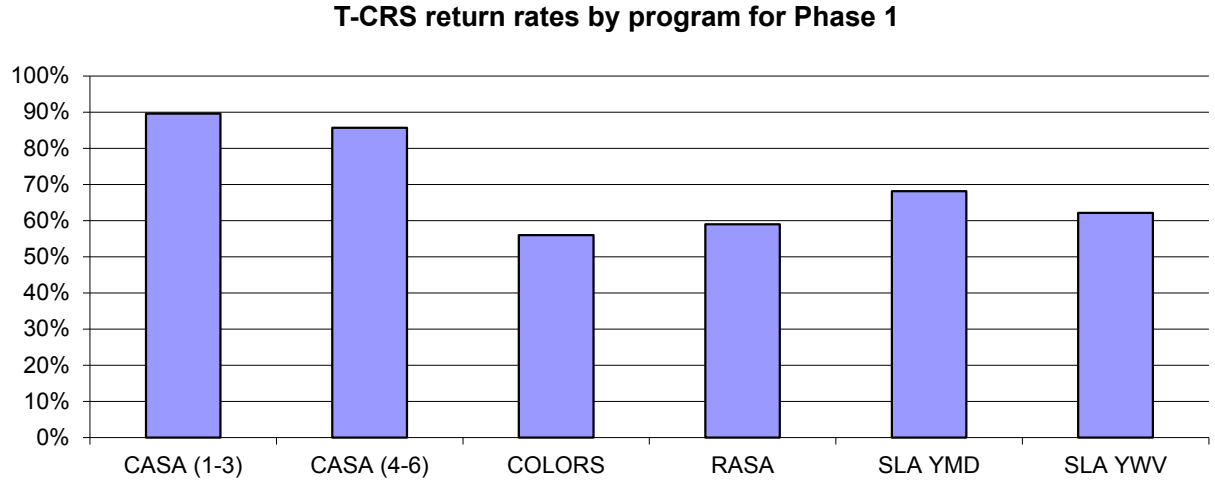
- **Main Analyses**
  - *Results for entire sample*: Mean levels of social and emotional adjustment on each subscale of the T-CRS 2.1 are depicted in charts showing changes across the program year. Because of occasional incomplete data, results are presented using two strategies: scores for all available students (Ns from 142-201, depending on time of testing), as well as scores only from students with complete data (N=94). Repeated measures analyses of variance (ANOVAs) are used to assess whether there were significant changes in reported competencies over time. Program effect sizes are reported.
  - *Results grouped by demographics*: Student means on each T-CRS subscale are presented grouped by program, sex, age (6-9, 10-15, 16-21), and ethnicity. ANOVAs are used to analyze results.
  - *Counts of positive/negative/no change*: Using the sum of the four T-CRS subscale scores, the proportions of students demonstrating pre to post positive change, no change, and negative change are reported for the entire group and broken down by program, sex, age group, and ethnicity.

- **Additional information**
  - Individual and group summaries containing socio-emotional profiles for each student at each Phase have been made available to Community Place through the COMET® on-line data scoring and processing system. These reports contain percentile ranks indicating how students' scores on the T-CRS compare with norms for urban boys and girls.

Return Rates

Phase 1 data collection (October-December)

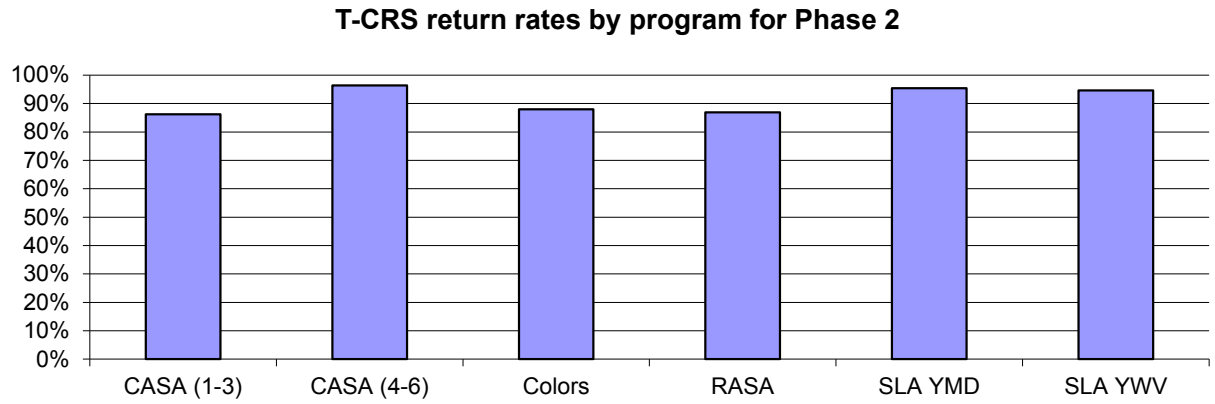
The chart and table below show the rates of returned instruments for Phase 1 by program. The overall Phase 1 return rate was 68%.



		Returned		Total
		No	Yes	
Program	CASA (1-3)	3	26	29
	CASA (4-6)	4	24	28
	COLORS	22	28	50
	RASA	25	36	61
	SLA-YMD	7	15	22
	SLA-YWV	14	23	37
Total		69	148	217

Phase 2 data collection (January-March):

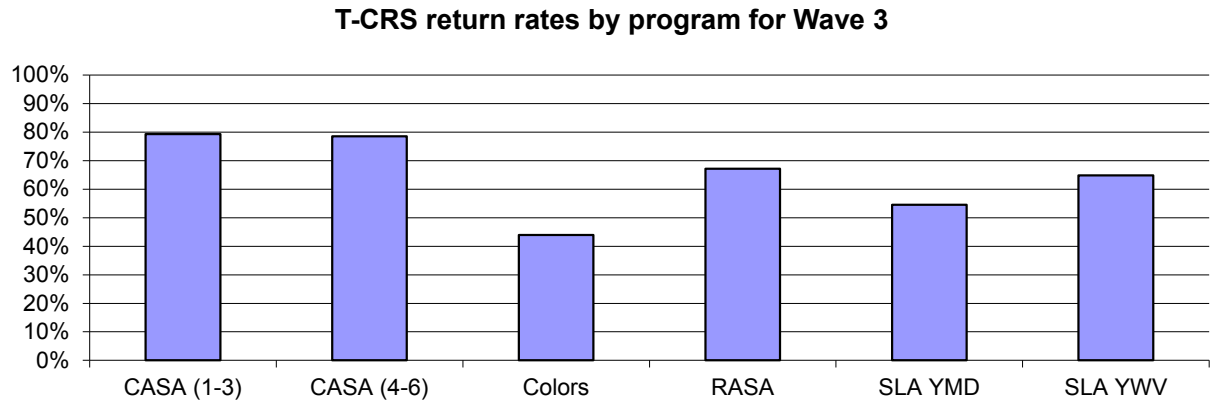
The chart and table below show the rates of returned instruments for Phase 2 by program. The overall Phase 2 return rate was 93%.



		Returned		Total
		No	Yes	
Program	CASA (1-3)	4	25	29
	CASA (4-6)	1	27	28
	COLORS	6	44	50
	RASA	8	53	61
	SLA-YMD	1	21	22
	SLA-YWV	2	35	37
Total		16	201	217

Phase 3 data collection (May):

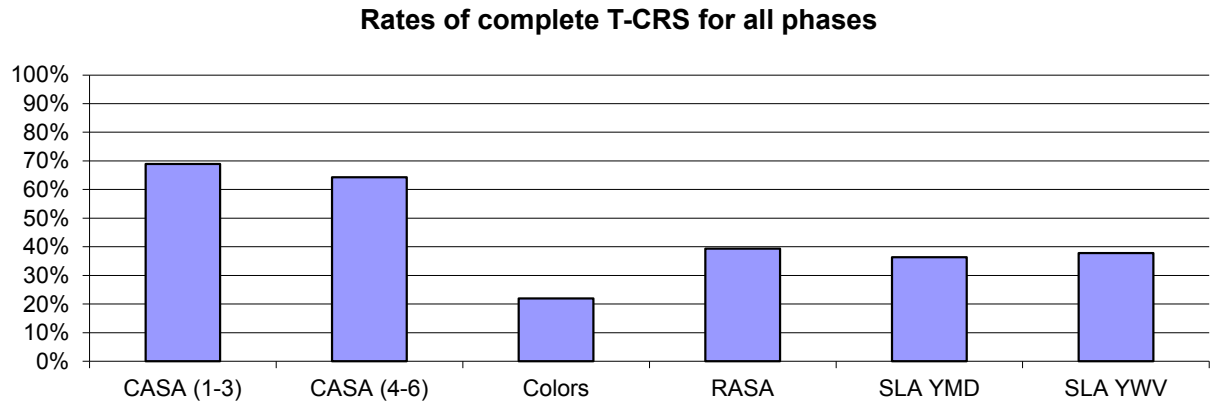
The chart and table below show the rates of returned instruments for Phase 3 by program. The overall Phase 3 return rate was 65%.



		Returned		Total
		No	Yes	
Program	CASA (1-3)	6	23	29
	CASA (4-6)	6	22	28
	COLORS	28	22	50
	RASA	20	41	61
	SLA-YMD	10	12	22
	SLA-YWV	13	24	37
Total		75	142	217

Complete data (Phases 1 – 3):

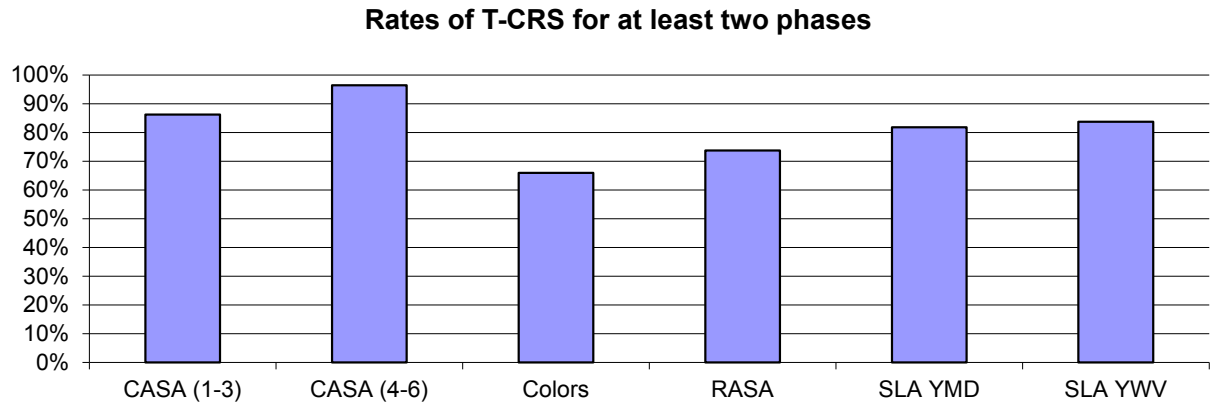
The chart and table below show the rates of complete T-CRS data for all three phases by program. The overall rate of complete data was 43%.



		Returned		Total
		No	Yes	
Program	CASA (1-3)	9	20	29
	CASA (4-6)	10	18	28
	COLORS	39	11	50
	RASA	37	24	61
	SLA-YMD	14	8	22
	SLA-YWV	23	14	37
Total		123	94	217

Data from at least two phases:

The chart and table below show the rates of students having at least two phases of T-CRS data by program. The overall proportion of students with data from either two or three phases was 83%.

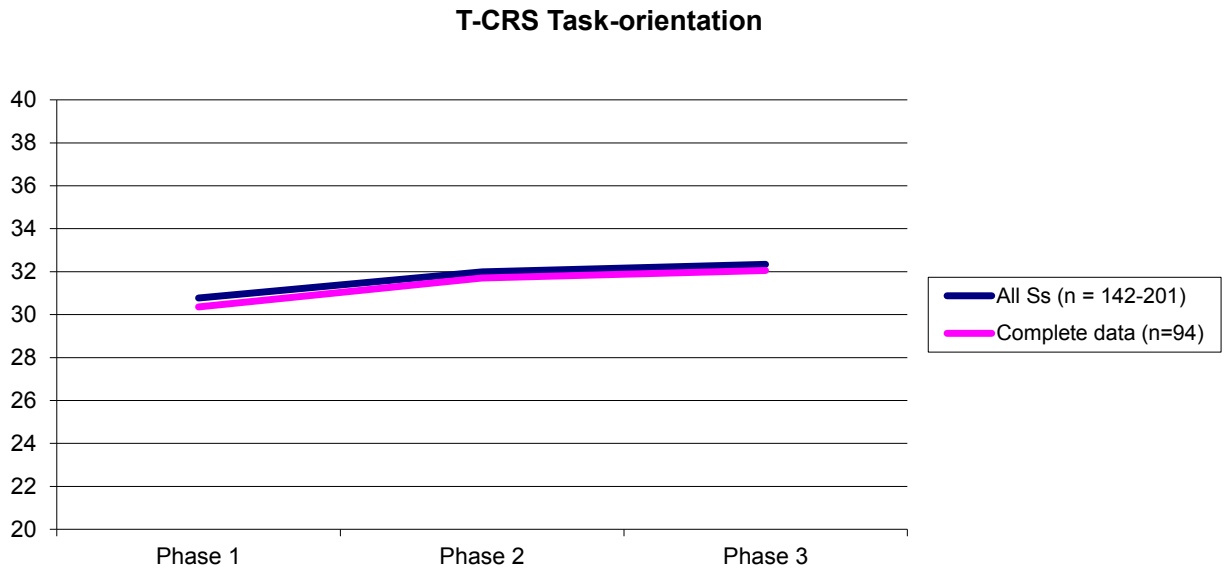


		Returned		Total
		No	Yes	
Program	CASA (1-3)	4	25	29
	CASA (4-6)	1	27	28
	COLORS	17	33	50
	RASA	16	45	61
	SLA-YMD	4	18	22
	SLA-YWV	6	31	37
Total		37	180	217

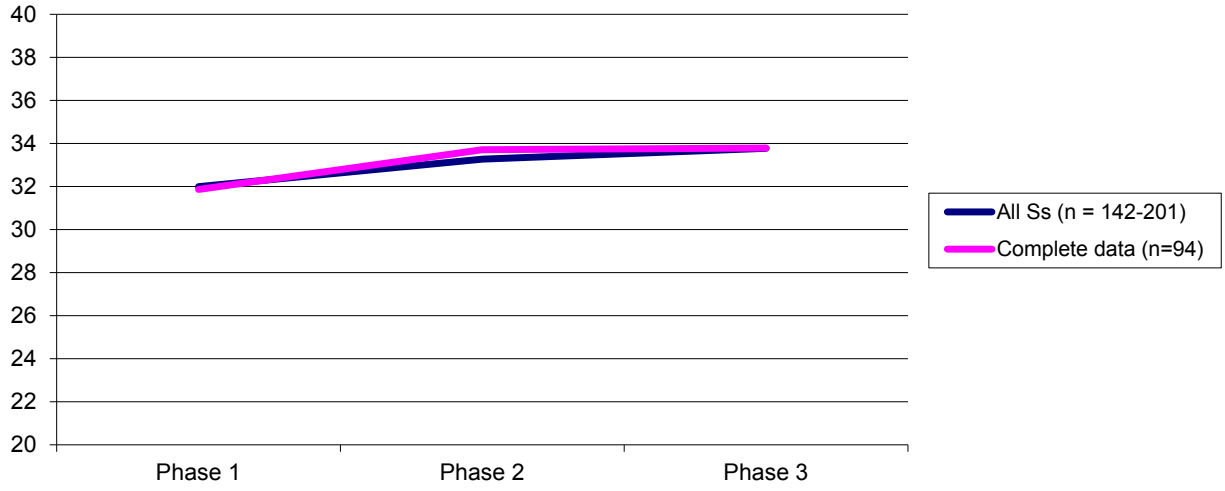
Main Analyses

Below, mean scores for each Phase are presented for each T-CRS subscale. Scale scores on the T-CRS can range from 8 to 40. Results are being presented for all students ("All Ss", N=142-201) and for the group of students with complete data ("Complete data", N=94).

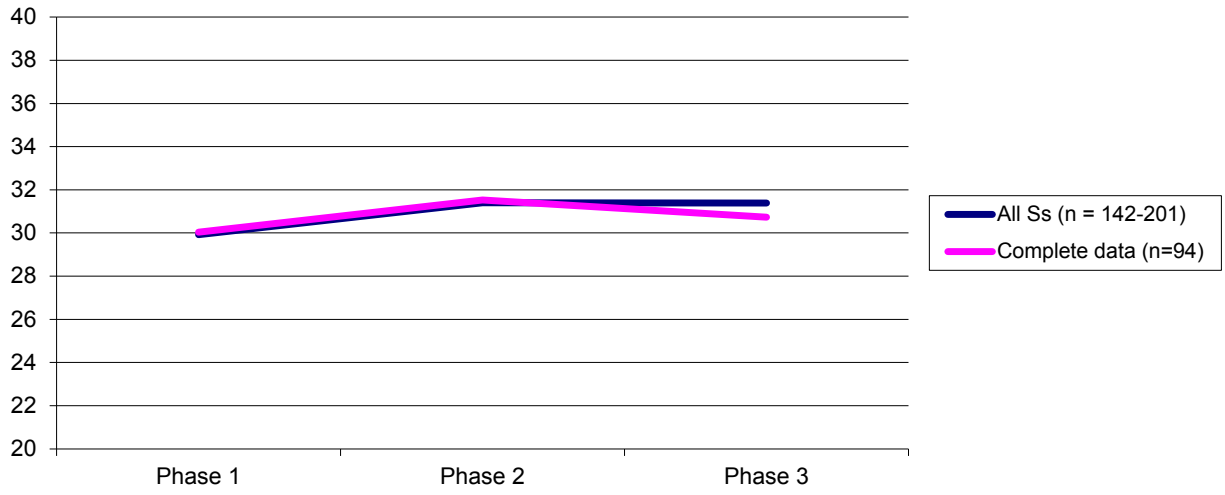
Overall T-CRS results

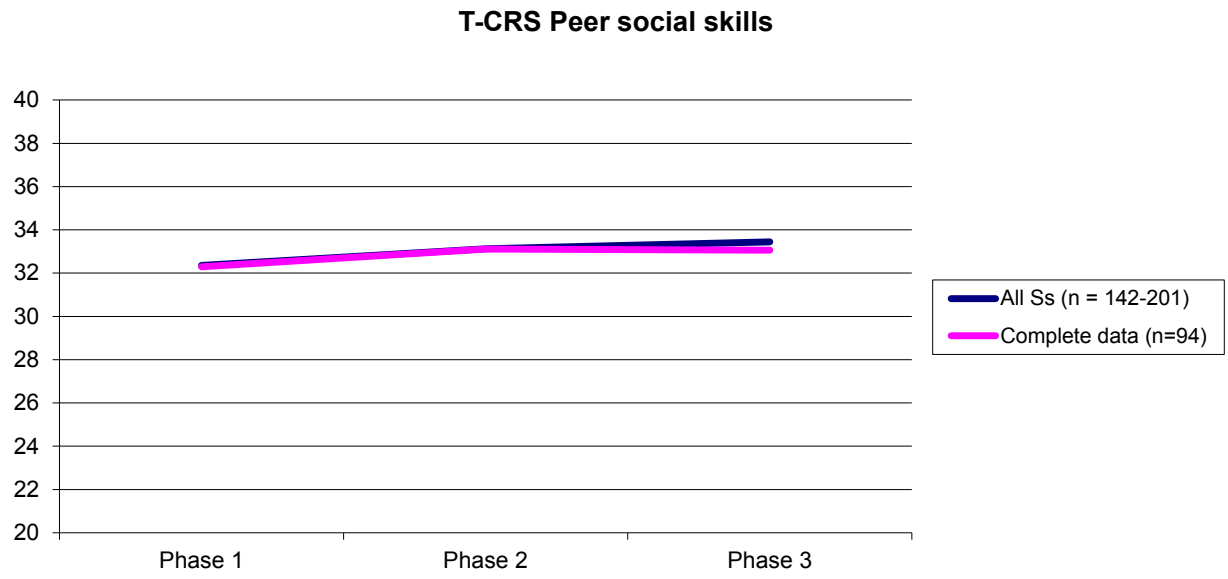


T-CRS Assertive social skills



T-CRS Behavior control





FINDING: Based on the reports of the raters, there are statistically significant observed positive changes in students' social and emotional competencies for Task Orientation ($F=6.37$, $p < .01$), Assertive Social Skills ($F=18.45$, $p < .001$), and Behavior Control ($F=4.75$, $p = .01$) across the three times of testing for the complete-data subsample. Overall scores for the Peer Social subscale did not statistically significantly change across the three phases. Results for the complete-data subsample and the full sample are similar.

Program effect sizes

Effect size (ES) is a commonly-used measure of the magnitude of program effects, expressed in standard deviation units. To calculate ES, we used the subsample of students for whom at least two Phases of testing were completed (N=180). For each T-CRS subscale, we produced descriptive statistics for the initial (*i.e.*, Phase 1, or Phase 2 if Phase 1 was unavailable) and the final (*i.e.*, Phase 3, or Phase 2 if Phase 3 was unavailable) ratings. The following formula was used:

$$ES = (\text{Mean}_{\text{final}} - \text{Mean}_{\text{initial}}) / \text{Standard deviation}_{\text{initial}}$$

The table below summarizes the results:

TCRS subscale initial, final, and change means and effect sizes[1]

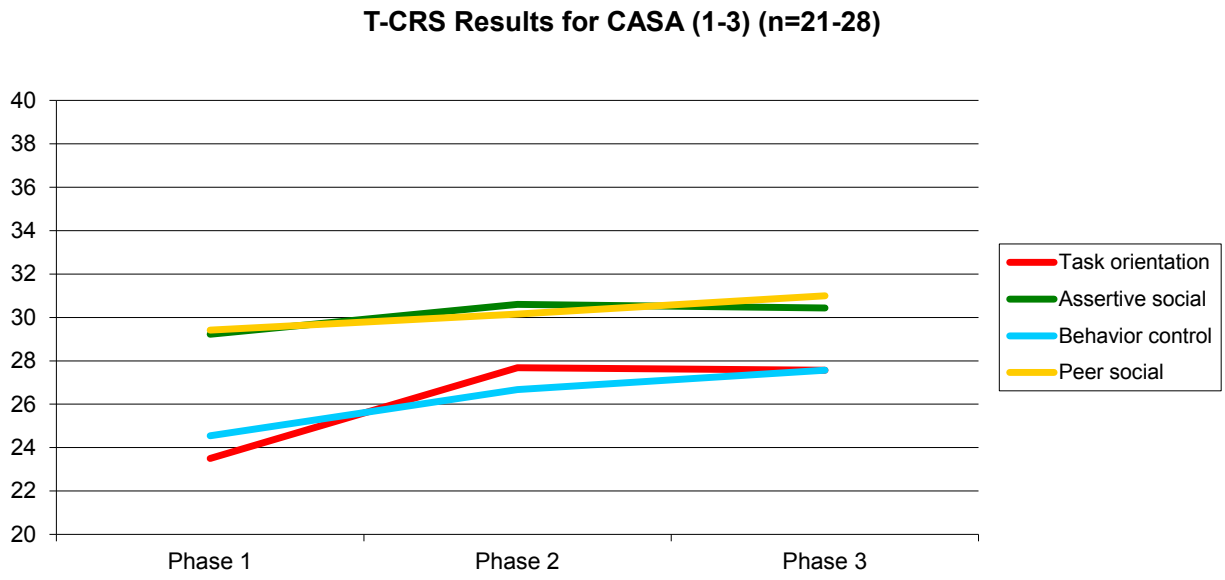
Subscale	Mean	Standard deviation	Effect size
Task orientation			
Initial	31.26	6.79	
Final	32.28	6.79	
Change	1.02	4.76	0.15
Assertiveness			
Initial	32.29	4.85	
Final	33.67	4.76	
Change	1.38	3.56	0.28
Behavior control			
Initial	30.66	6.30	
Final	31.17	6.95	
Change	0.51	4.27	0.08
Peer social			
Initial	32.68	4.81	
Final	33.34	5.04	
Change	1.06	4.20	0.22

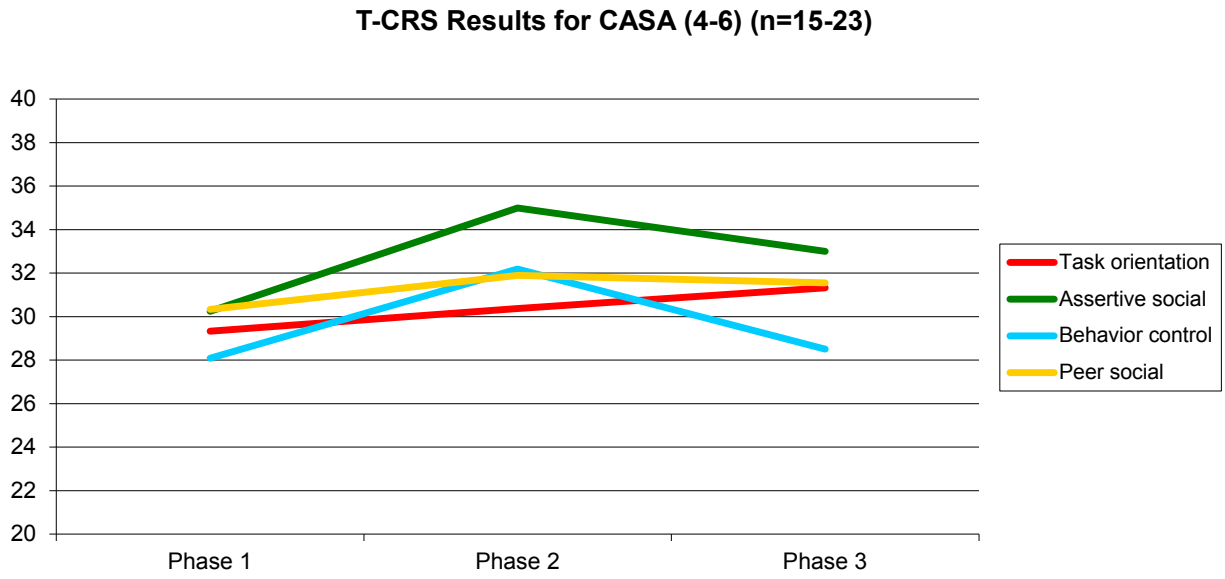
Cohen (1988) proposed that ES be broadly classified as small, around 0.2 to 0.3; medium, around 0.5; and large, around 0.8 and above. The U.S. Department of Education's What Works Clearinghouse (http://ies.ed.gov/ncee/wwc/references/iDocViewer/Doc.aspx?docId=8) describes student-level outcomes with ES $\geq$ 0.25 as "substantively important". The ES for the Assertive Social Skills outcome exceeds this criterion, indicating program effectiveness for this domain.

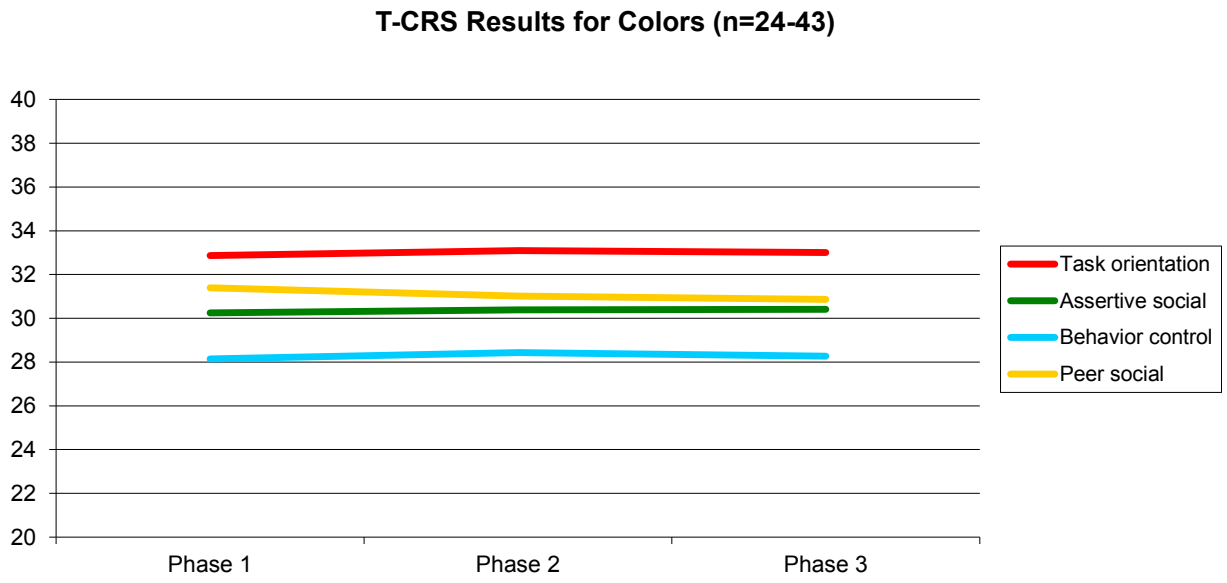
[1] See the appendix for a version of this table which includes only CASA, RASA, and SLA programs, *i.e.*, those funded by United Way of Greater Rochester.

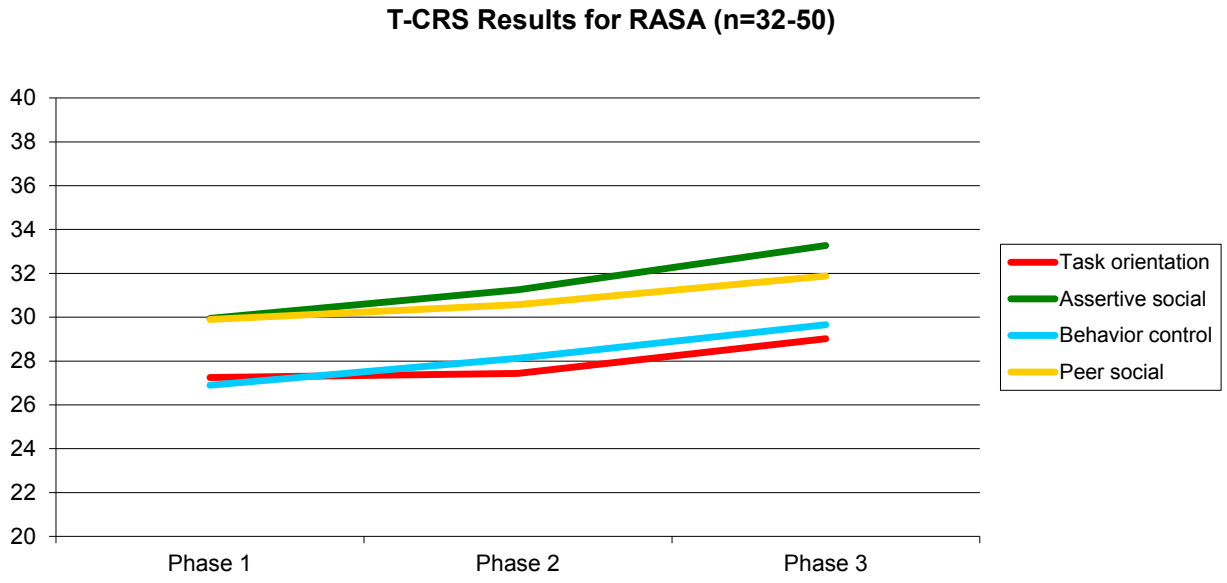
T-CRS results reported by program

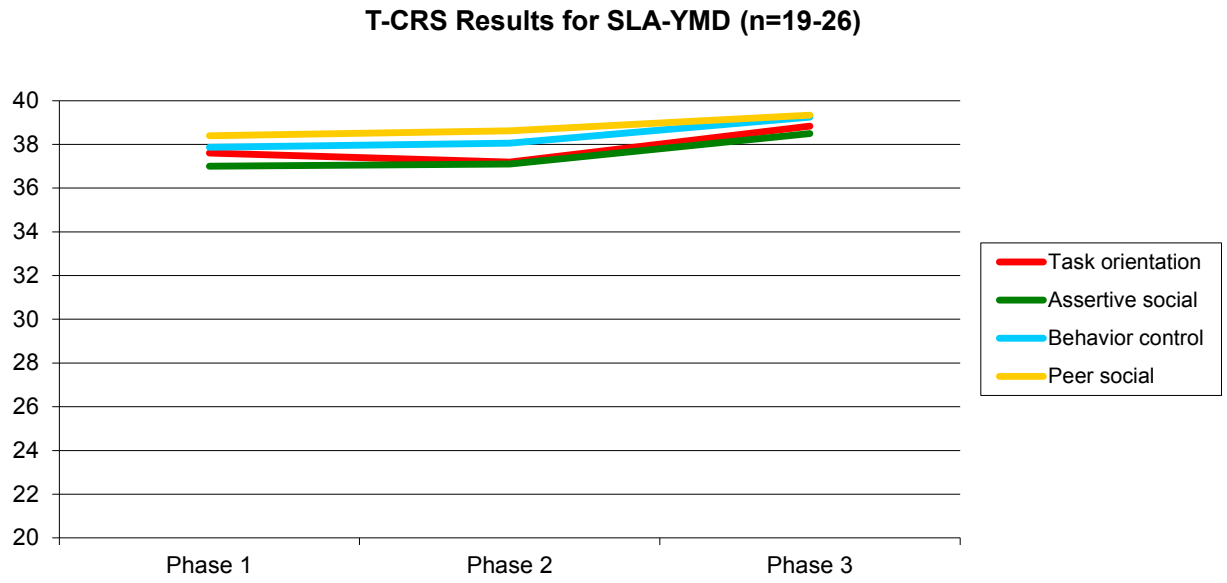
The charts below show T-CRS subscale results from three times of testing for each program separately. The number of students for whom data are available varies by Phase. The minimal and maximal number of students is provided for each chart.

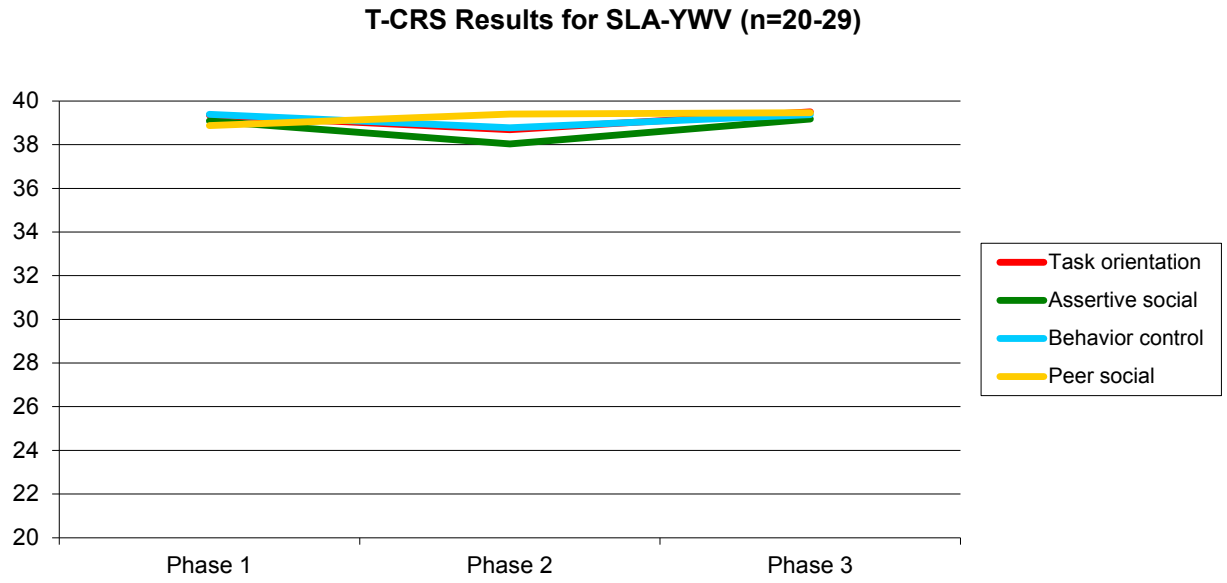





T-CRS Results for Colors (n=24-43)
40
38
36
34
32
30
28
26
24
22
20
Phase 1
Phase 2
Phase 3
Task orientation
Assertive social
Behavior control
Peer social


T-CRS Results for RASA (n=32-50)
40
38
36
34
32
30
28
26
24
22
20
Phase 1
Phase 2
Phase 3
Task orientation
Assertive social
Behavior control
Peer social





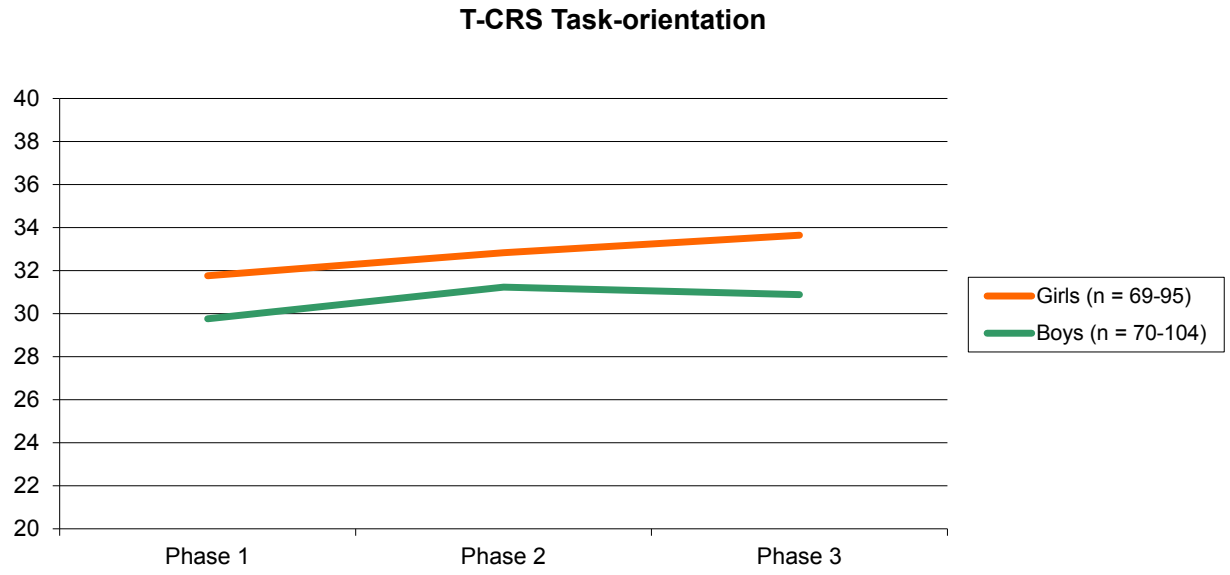
FINDING: Program (6) x Phase (3) analyses of variance (ANOVAs) were conducted for each of the four subscales from the T-CRS, using the complete-data sample. Overall, statistically significant ($p \leq .05$) interaction effects were noted for Behavior Control and Assertive Social Skills, indicating that some programs differed across the three Phases of data collection for these variables.

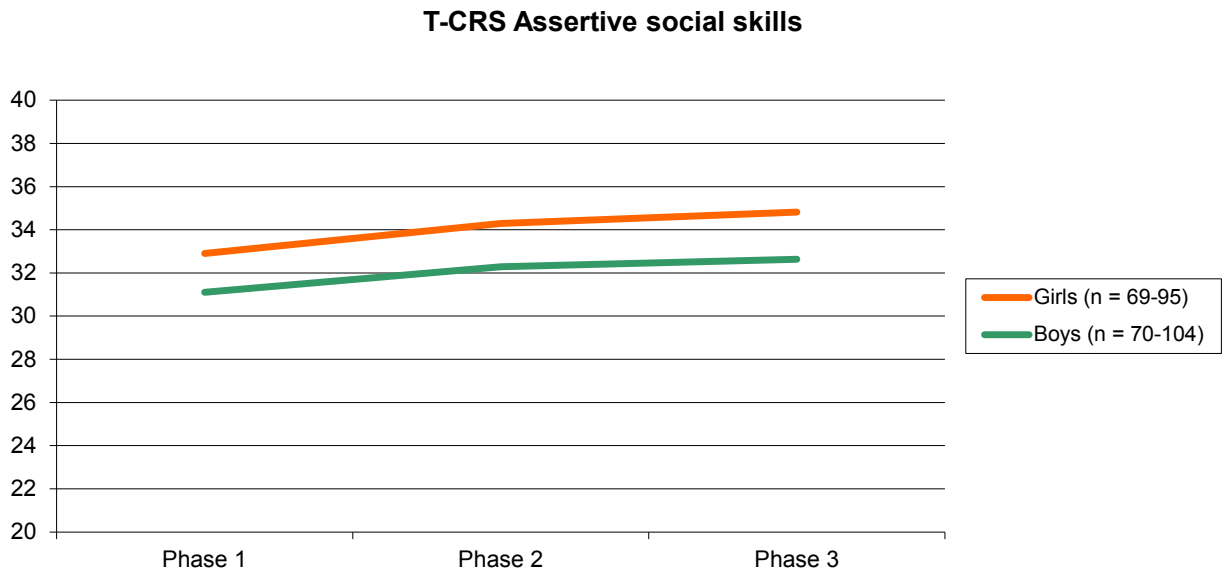
Subsequent simple effects, consisting of one-way Phase ANOVAs to assess Behavior Control and Assertiveness change for each of the six programs, were computed to clarify the results. Three programs showed statistically significant growth on the Behavior Control or Assertive Social Skills subscale over time:

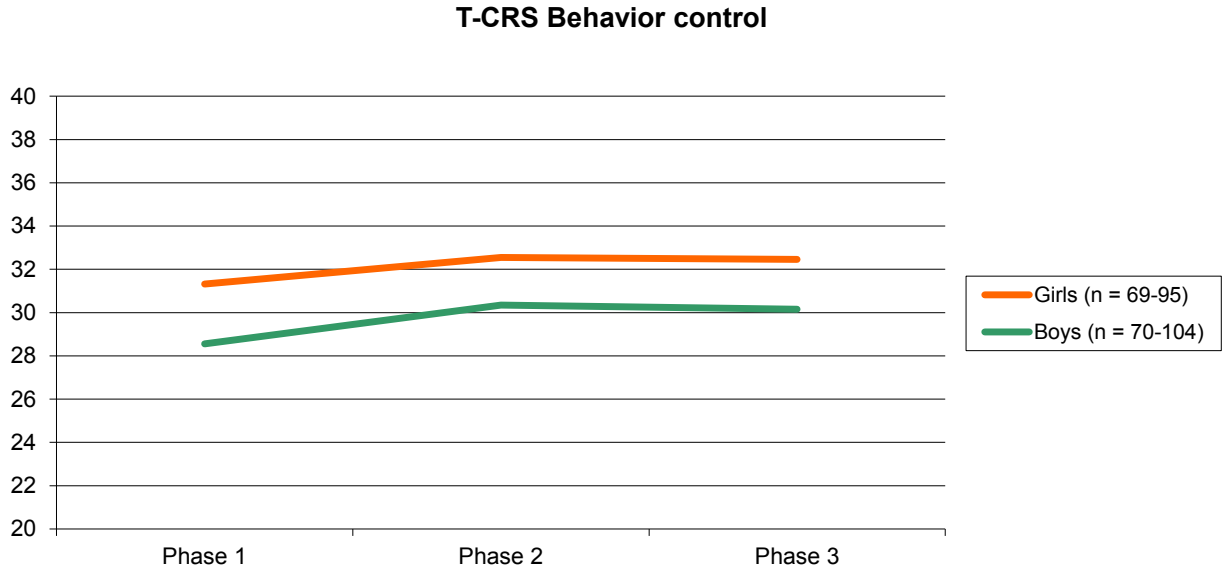
- *For CASA (4-6)*
  - *Behavior control for Phase 2 > Phases 1 and 3.*
  - *Assertiveness for Phase 2 > Phase 1.*
- *For COLORS*
  - *Assertiveness for Phase 2 > Phase 1.*
- *For RASA*
  - *Assertiveness for Phase 3 > Phases 1 and 2.*

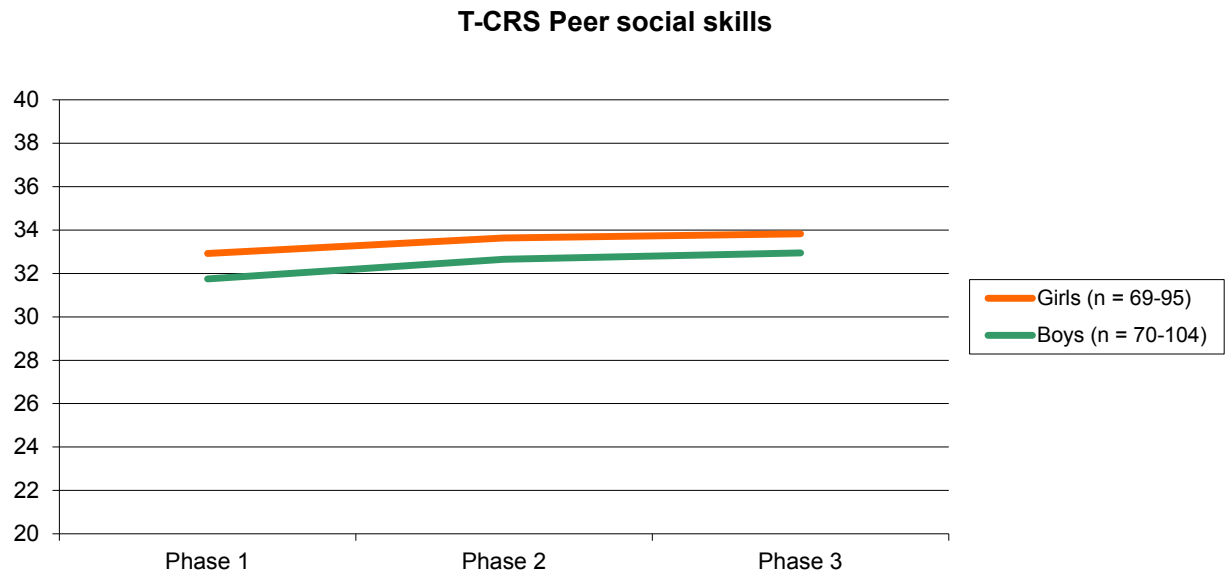
T-CRS results reported by sex

T-CRS results for boys and girls for each subscale are shown in the charts below.




T-CRS Assertive social skills
40
38
36
34
32
30
28
26
24
22
20
Phase 1
Phase 2
Phase 3
Girls (n = 69-95)
Boys (n = 70-104)


T-CRS Behavior control
40
38
36
34
32
30
28
26
24
22
20
Phase 1
Phase 2
Phase 3
Girls (n = 69-95)
Boys (n = 70-104)

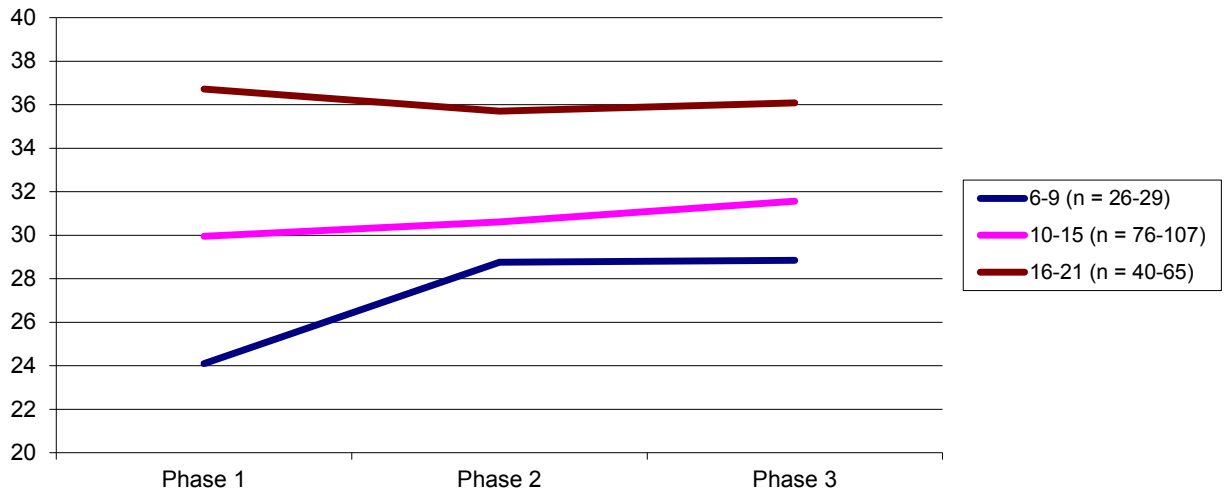


FINDING: Sex (2) x Phase (3) ANOVAs were conducted for each of the four subscales from the T-CRS, using the complete-data sample. No statistically significant interaction effects were observed for any subscale, indicating that boys' and girls' scores did not differ as a function of the time of data collection.

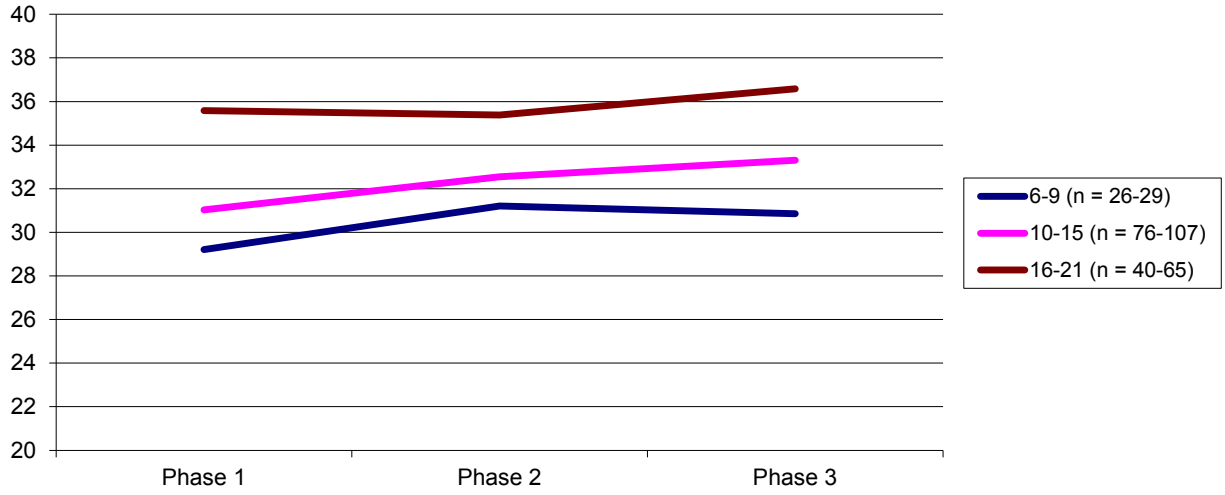
T-CRS results reported by age

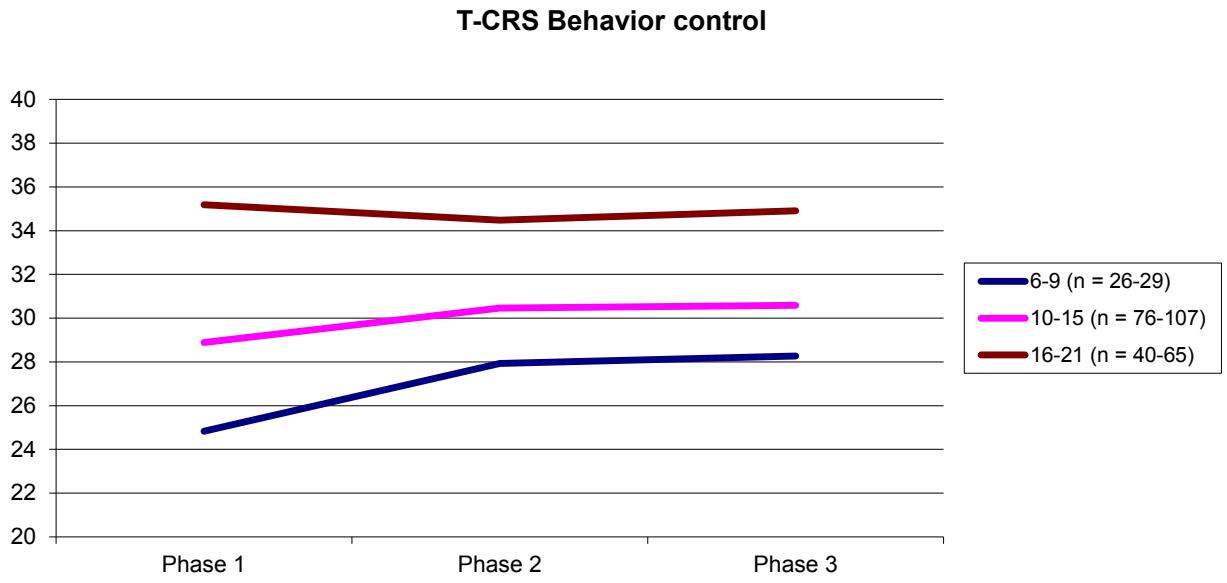
Participants' ages as of June 3rd, 2012 were computed. Ages ranged from 6 – 21, with a median of 14 years old. The following charts show T-CRS results across three times of testing for three age groups (6-9, 10-15, and 16-21 years old).

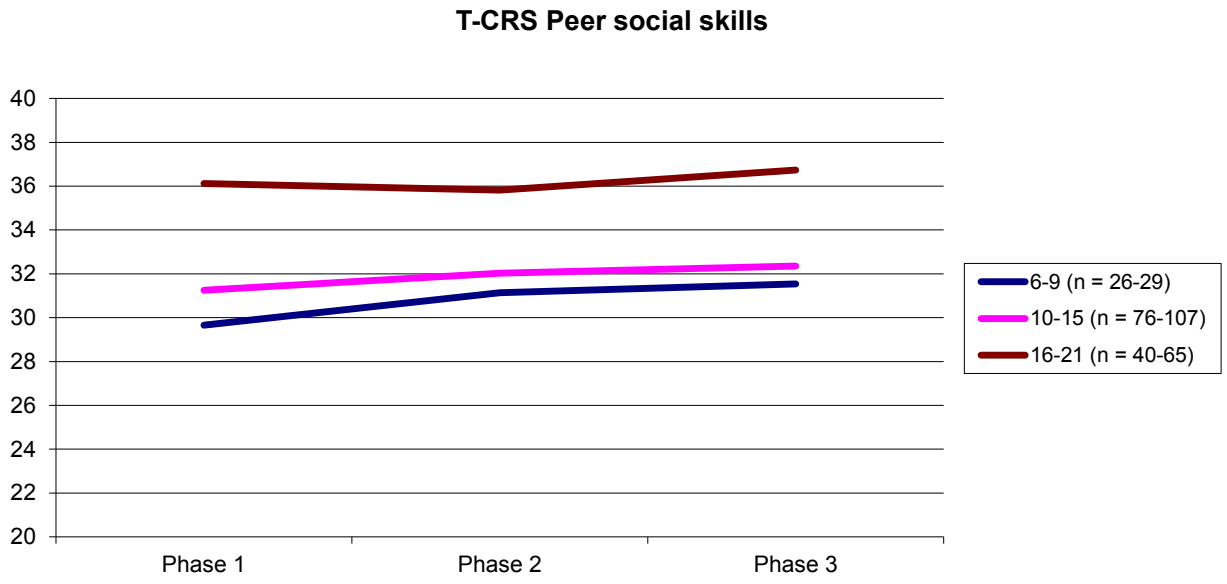
T-CRS Task-orientation



T-CRS Assertive social skills







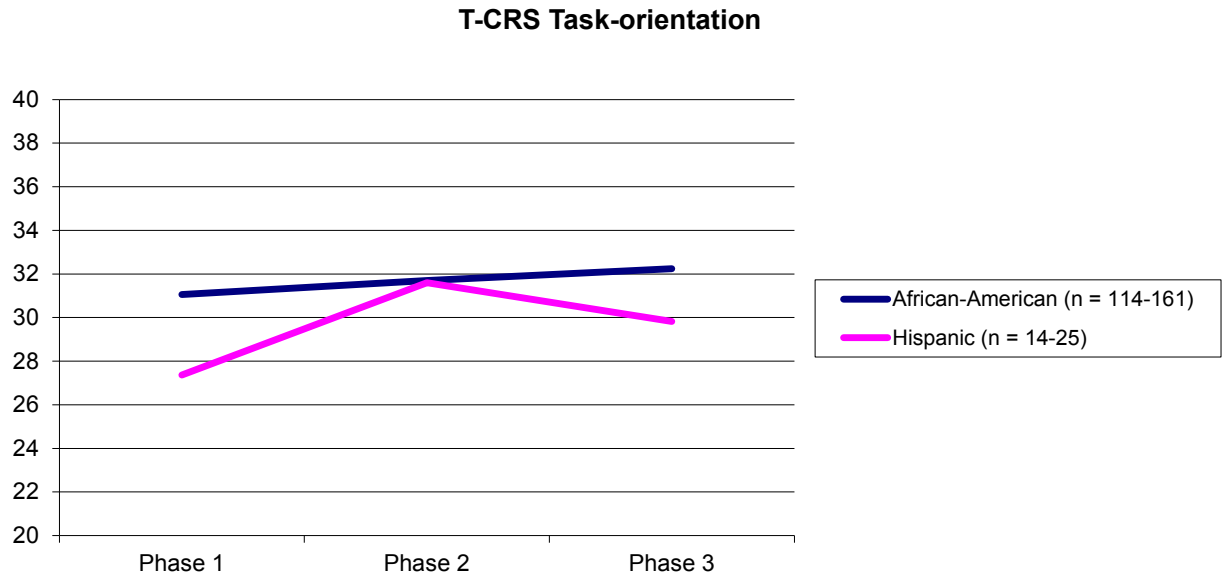
FINDING: For the complete-data sample, Age group (3) x Phase (3) ANOVAs were conducted for each of the four subscales from the T-CRS. An interaction effect was found for the Task Orientation subscale, indicating that the pattern of change across time depended on participants' ages for this outcome.

Simple effects procedures using Task Orientation at three times of testing as the dependent variables were conducted to elucidate the interaction effect.

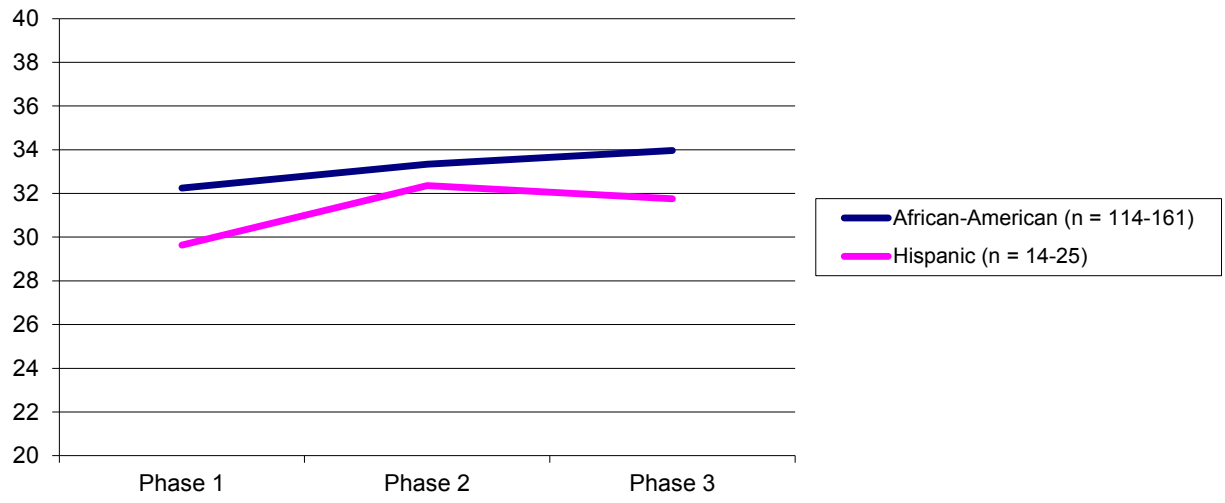
- *For 6-9 year olds*
  - *Phase 2 > Phase 1.*
- *For 10-15 year olds*
  - *Phase 3 > Phases 1 and 2.*

T-CRS results reported by race/ethnicity

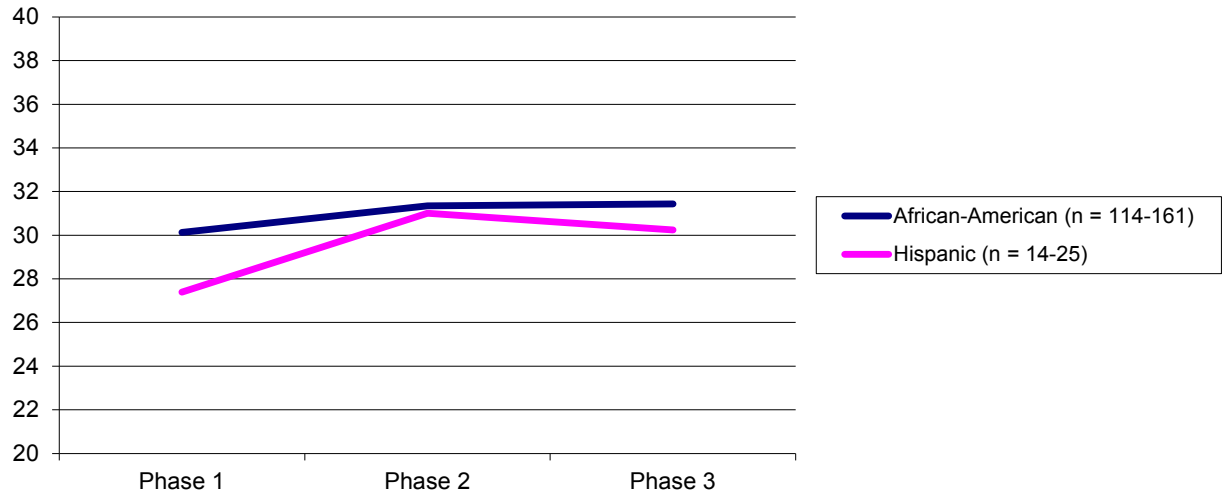
Of the 217 participants, 173 (80%) were identified as Black, 26 (12%) as Hispanic, 10 (5%) as White, and 2 (1%) as Native American. More than one selection could be made. T-CRS results for the three times of testing are presented in the charts below. Ethnicities other than African-American or Hispanic are omitted because their cell sizes are too small for meaningful comparison. ANOVAs comparing ethnicities are not reported because 25% of the Hispanic group also was identified as Black.

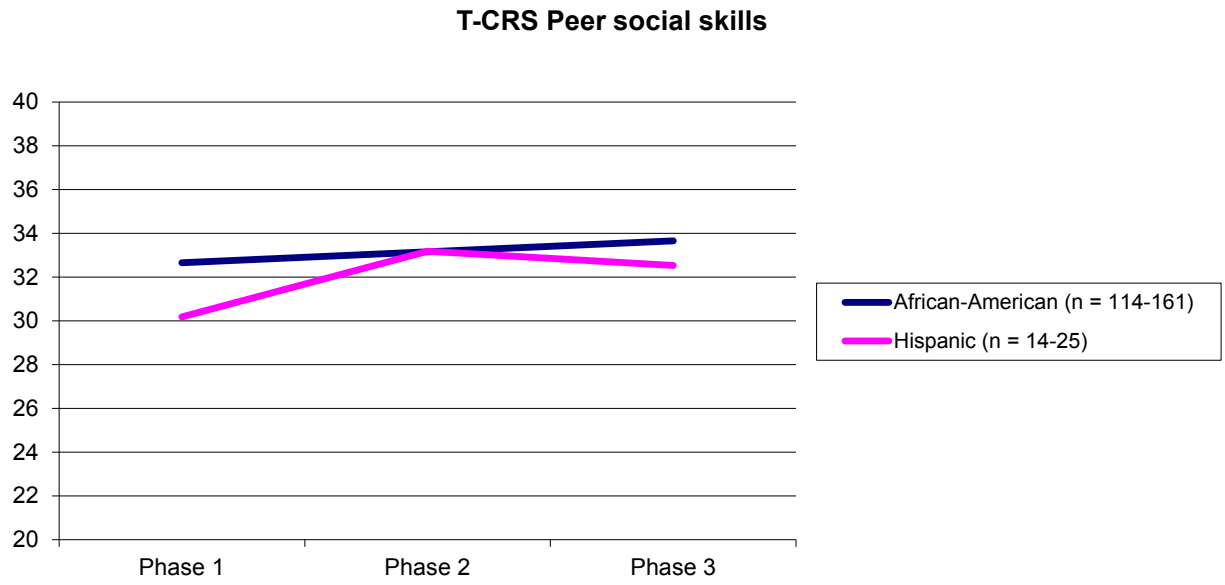


T-CRS Assertive social skills



T-CRS Behavior control





Changes in T-CRS total scores

A T-CRS total *Pre-Post change score* was calculated by subtracting students' total scores for Phase 1 (or Phase 2, if this was the initial time point for that student) from their total scores at Phase 3 (or Phase 2 if this was the final time point). Only students with data from at least two time points are included in these results.

Outcome groups were defined thus:

- *Positive change* = change score greater than positive 5
- *Minimal Change* = change score of -5 to +5
- *Negative change* = change score less than -5.

The table below summarizes change score results for the overall sample and by sex, program, age, and ethnicity subgroups.

	Positive change	**Minimal change**	**Negative change**
Overall sample (n=180)	36%	42%	22%
CASA (1-3) (n=25)	52%	32%	16%
CASA (4-6) (n=27)	56%	15%	30%
Colors (n=33)	21%	55%	24%
RASA (n=45)	49%	31%	20%
SLA-YMD (n=18)	28%	44%	28%
SLA-YWV (n=31)	6%	81%	13%
Girls (n=86)	35%	47%	19%
Boys (n=93)	38%	38%	25%
6-9 years old (n=29)	60%	28%	14%
10-15 years old (n=94)	36%	43%	21%
16-21 years old (n=57)	25%	49%	26%
African-American (n=147)	37%	42%	22%
Hispanic (n=22)	32%	41%	27%

Findings: There is mixed evidence of positive overall program effect with regard to children's social-emotional behaviors as measured by the T-CRS. Thirty-six percent of students with data from two or more times of testing showed positive change, and 22% declined.

Breaking down results by program shows that children in the CASA (1-3), CASA (4-6), and RASA programs improved their overall behaviors at or beyond the rate of the overall sample.

Boys and girls appear to have benefited from program involvement approximately equally.

Six to nine year-olds were rated as improved to a greater extent then other age groups, particularly the 16-21 year-olds.

There were no clear differences in rates of improvement for African-American and Hispanic participants.

Limitations of this evaluation

This study has a number of limitations which should be taken into account when considering the results. Several of these are discussed in this section of the report.

This study did not include a matched control group, so firm conclusions about what effects are related to participation in Community Place's programs cannot be made. All baseline and outcome information came from a single source (the person completing the rating), using a single instrument. Program attrition was not controlled for, and instrument return rates varied substantially by site and time of test. Only 43% of the participants had complete data for all three phases of testing, limiting the ability to generalize the findings. Phase 2 data used as a replacement for pre-test or post-test results in some analyses could not take into account baseline or final status for program participant.

References

Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). Hillsdale, NJ: Erlbaum.

Appendix

Overall descriptive statistics and effect sizes for those programs funded by the United Way of Greater Rochester, including CASA, RASA, and SLA, are presented below.

TCRS subscale initial, final, and change means and effect sizes
Programs funded by United Way: CASA, RASA, SLA (N=94)

Subscale	Mean	Standard deviation	Effect size
Task orientation			
Initial	33.36	6.98	
Final	33.97	7.27	
Change	0.61	4.60	0.09
Assertiveness			
Initial	34.62	4.96	
Final	35.81	4.45	
Change	1.19	3.22	0.24
Behavior control			
Initial	33.60	6.36	
Final	34.32	6.42	
Change	0.72	4.17	0.11
Peer social			
Initial	34.72	5.18	
Final	35.50	4.65	
Change	0.88	3.40	0.17