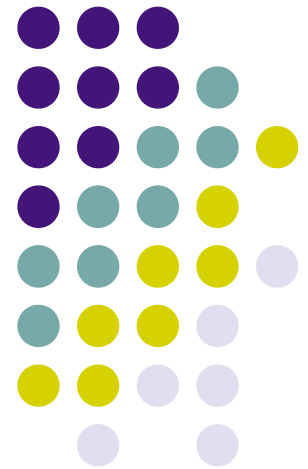
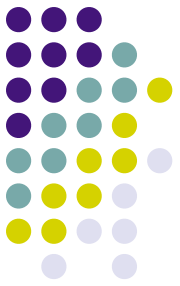


Healthy Kids Healthy Communities final report

P. Antonio Olmos-Gallo, Ph.D.

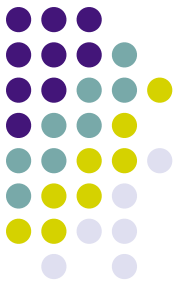
Consultant for the Psychologist team





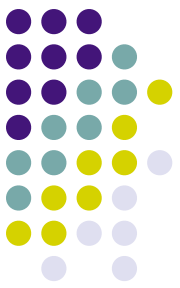
Overview

- Goal of the report
- Approach to CQI
 - Total Quality Management
 - Process evaluation
 - Analysis of records and other documents
 - Meetings with DPS personnel
- Implementation of CQI pilot program
- Results of the implementation
 - Psychometric analysis
 - Changes in student's behavior
 - Item analysis
 - Effects of other information on the outcomes
- Unfinished business



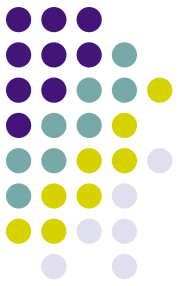
Goals of this report

1. Describe the results of the **formative evaluation** associated with the implementation of CQI under the framework of Total Quality Management
2. Describe the results of the PEACE 4 Kids intervention program piloted during the 2005-2006 academic year

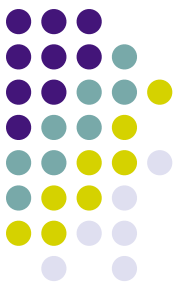


TQM for CQI

- TQM: A method by which management and staff can become involved in the continuous improvement of the production of goods and services
- Continuous Quality Improvement (CQI) can be approached through the use of the Total Quality Management philosophy (TQM; Deming, 2000).

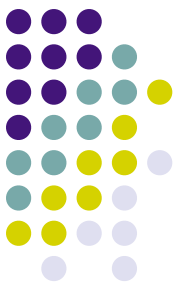


- TQM emphasis is perpetual improvement based on:
 1. A customer focus
 2. A focus on data and systems
- Under TQM the focus changes from quality management to quality systems (processes, not people, are the problem)



Process Evaluation for CQI

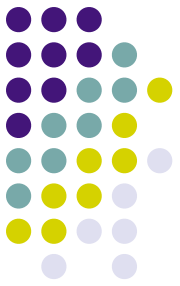
- Process evaluation is mostly used to record or judge procedural events and activities
- It is related to the decision making process for implementing and refining program design and procedures



Process evaluation (cont)

- Document the procedures that the DPS psychologists considered as part of their work
- Develop mechanisms to monitor quality and guarantee consistency in the delivery
- Because of time limitations, only a subset of those products were fully implemented in this study

Analysis of records and other documents



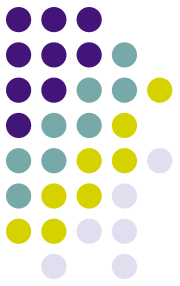
- Early attempts to evaluate activities faced two serious problems:
 1. The need for outcomes data collection was downplayed
 2. Any type of data collection was disorganized at best. For example, psychologists could see student data entered in SASI but were not required to enter any information

How management is addressing these problems:



- The insignificant role played by outcomes is changing drastically due to the heavy emphasis on CQI and strengthened by the emergence of ProComp
- Data collection and tracking are being addressed through the use of the new MIS which will provide a web-based interface for student data entry and tracking

Results of the meetings with Psychological Services



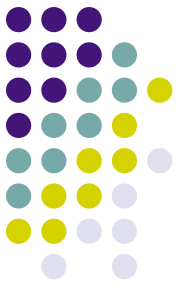
- Ultimate goal for the project would be to **increase the student's availability for instruction** (seat time)
- Identification of several areas where processes can be measured
 - Outcomes related to the Responsiveness to Intervention (RTI) program
 - Referrals (both internal and external)
 - Consultations with parents and teachers
 - Psychological assessments
- Development of a measurement matrix:



Example of the measurement matrix

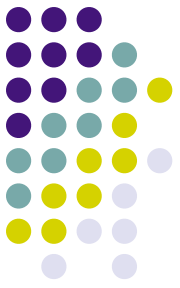
Theme/ Objective	Potential Process Measures*	Potential Outcome Measures*	Potential Impact
Assessment	<ul style="list-style-type: none"> Psychologist assess the child Psychologist writes a report for the parent and the teacher. The report contains: 1) Instructionally-relevant recommendations for school, 2) Specific recommendations for parents and, 3) Referral instructions as needed Psychologists joins with parent (and teacher) to review the contents of the report and answers questions as appropriate Psychologist follows up with parents and teachers about the assessment (and referral) as needed 	<ul style="list-style-type: none"> Psychologist wrote a report in a timely fashion Psychologist joined parent (and teacher) to review the report, and answered questions as appropriate The report contained recommendations relevant to school improvement and recommendations for parents The assessment is presented during staff meeting and questions are answered to the staff's satisfaction 	<p>The children the parents, and school staff are provided with the information that will help their readiness to learn</p>
Consultation around Home-School Support	<ul style="list-style-type: none"> Psychologist collaboratively completes referral form Psychologist interviews parent regarding school concerns (behavior or academic) Psychologist receives completed parent questionnaire Psychologist joins with parents to understand parent's point of view of problem (behavior or academic) Psychologist, parent and teacher collaboratively develop intervention plan if needed (behavior or academic) Psychologist models implementation plan for parent and teacher Psychologist speaks with parent about implementing plan at home Follow-up with parents and teacher Reassess intervention plan and modify plan if needed 	<ul style="list-style-type: none"> Psychologist and parents (and teachers) consulted Psychologists and parents (and teachers) jointly agree on and implement Home-School Support plan Home environment is conducive to learning School and home share expectations and goals for the student Parent satisfied 	<p>The parents are better equipped to develop and implement interventions</p>

The development of the measurement matrix led to two important insights

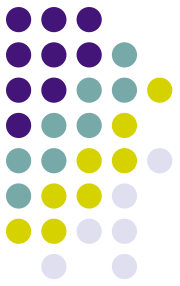


1. Impossible to implement outcomes for all areas at this moment
2. Some of the desired outcomes could be achieved by assuming:
 - If the procedures are followed according to a protocol, the interventions will have the desired outcome, even if the outcome is not measured
 - The approach in (2) follows the rationale used by Evidence Based Practices (EBP)

Procedure to implement a protocol that might lead to the desired outcome:



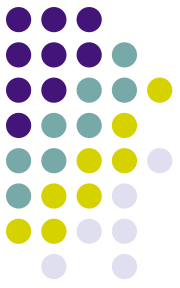
- Development of the protocol as a data entry form:
 - Prompt the psychologists in the field to follow the protocol
 - Provide data documenting the process
- Example of a protocol to document **consultation with teachers:**



Consultation with Teachers

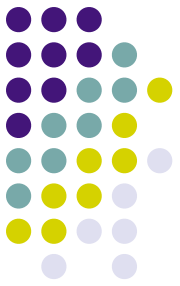
Referral form collaboratively fill out with the Teacher		Date:
Meeting with Teacher to address concerns re: Referral		Date:
Focus of the intervention (circle):	Behavioral	Academic
Intervention strategy collaboratively developed		Date:
Focus of the intervention (circle):	Behavioral	Academic
Implementation plan collaboratively developed		Date:
Focus of the intervention (circle):	Behavioral	Academic
Model implementation plan with teacher		Date:
Meeting with Teacher Re: follow-up implementation at school		Date:
Reassessment of the intervention (if needed)		Date:
General Comments		

Implementation of CQI pilot program

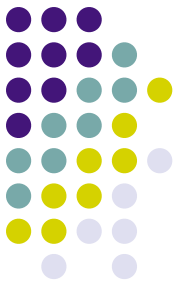


- Psychological Services implemented a 10-session program designed to remove barriers to learning for students referred for disruptive behavior
- Adapted from the PEACE4Kids program, which has at its core an Aggression Replacement Training (ART) curriculum

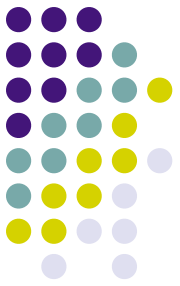
PEACE4Kids program



- 10 sessions long, cover topics ranging from self-esteem to problem-solving.
- Curricula can be adapted to the student's needs by the psychologist.
 - For example, if the psychologist believes that the student has problems “joining in,” there are extra sessions that will address some of these skills in particular
- Curricula includes specific goals and homework for every session, and materials on each session are intended to be covered in 1 hour.



- PEACE4Kids has an outcome measure that can be administered both before and after the intervention to evaluate pre-post changes
- Parent and Teacher assessment of the student skills related to the intervention
- Parent's instrument also contains a section on the parent's perception of communication with the school and parenting skills



Results of the pilot

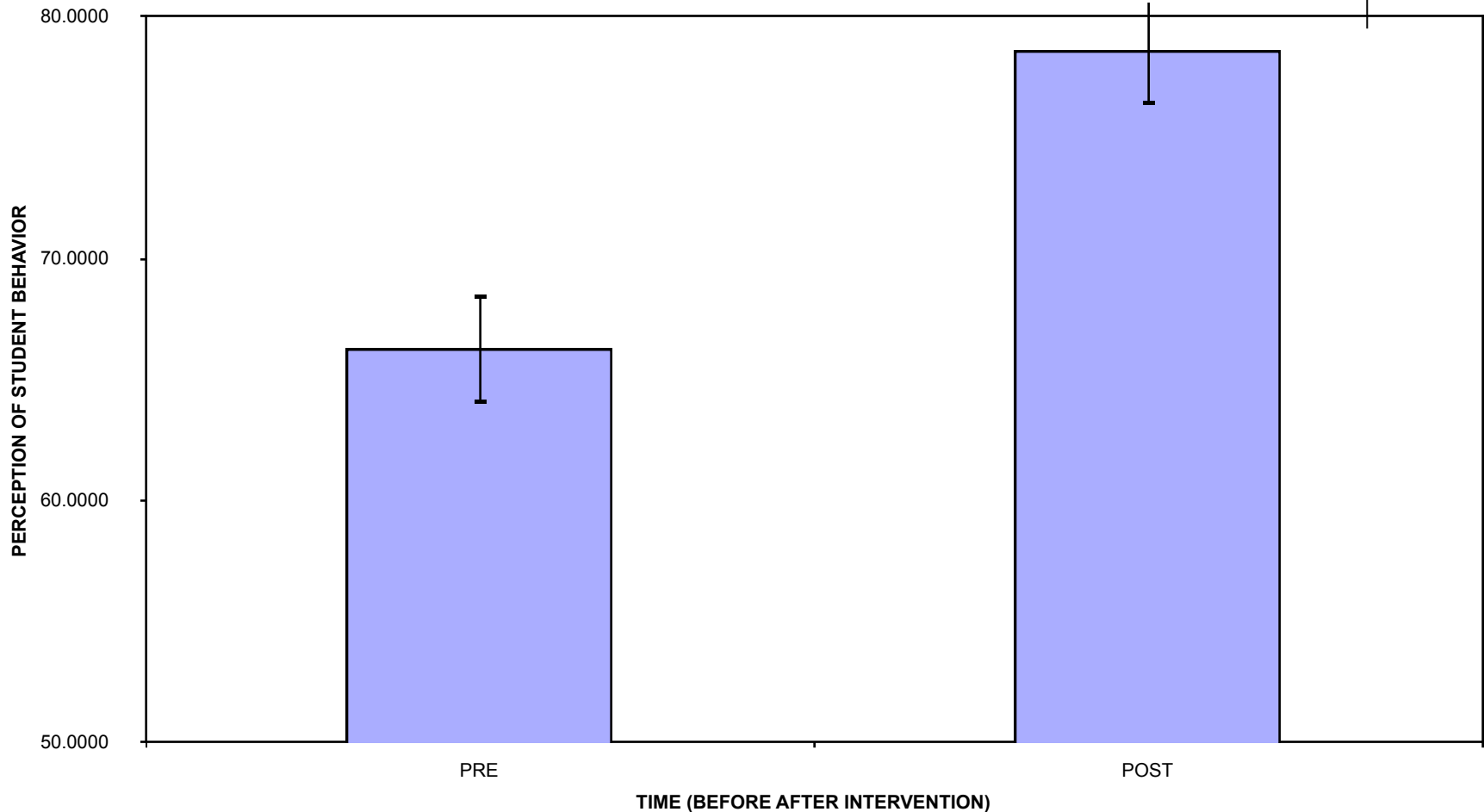
- Psychometric analysis:

	Teacher's assessment of behavior	Parent's communication	Parent's assessment of behavior
3-point scale	$\alpha = 0.914$	$\alpha = 0.832$	$\alpha = 0.912$
4-point scale	$\alpha = 0.951$	$\alpha = 0.776$	$\alpha = 0.934$

- No clear decision about what scale is better
 - Theoretical point of view: Preferred to have more points in a scale, because that increases the respondent's choices

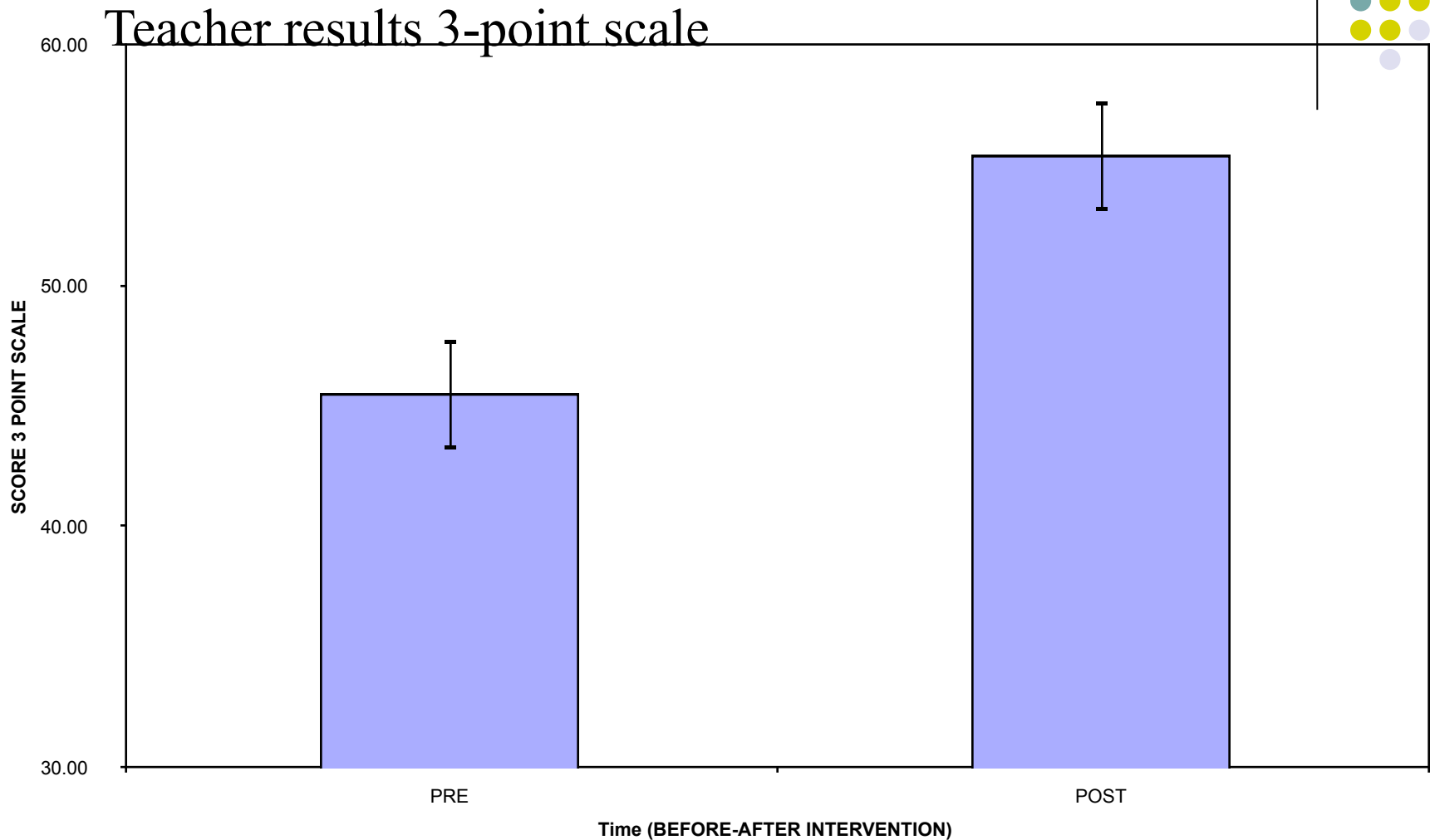
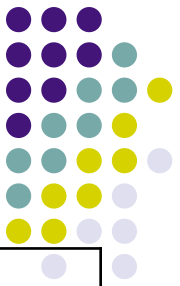
Changes in student's behavior

Teacher results 4-point scale



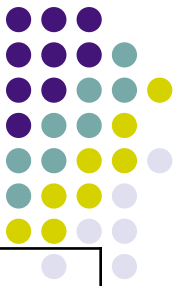
Positive change in behavior from PRE ($M = 66.26$) to POST ($M = 78.614$)
($t(37) = -4.776, p < 0.05$)

Changes in student's behavior

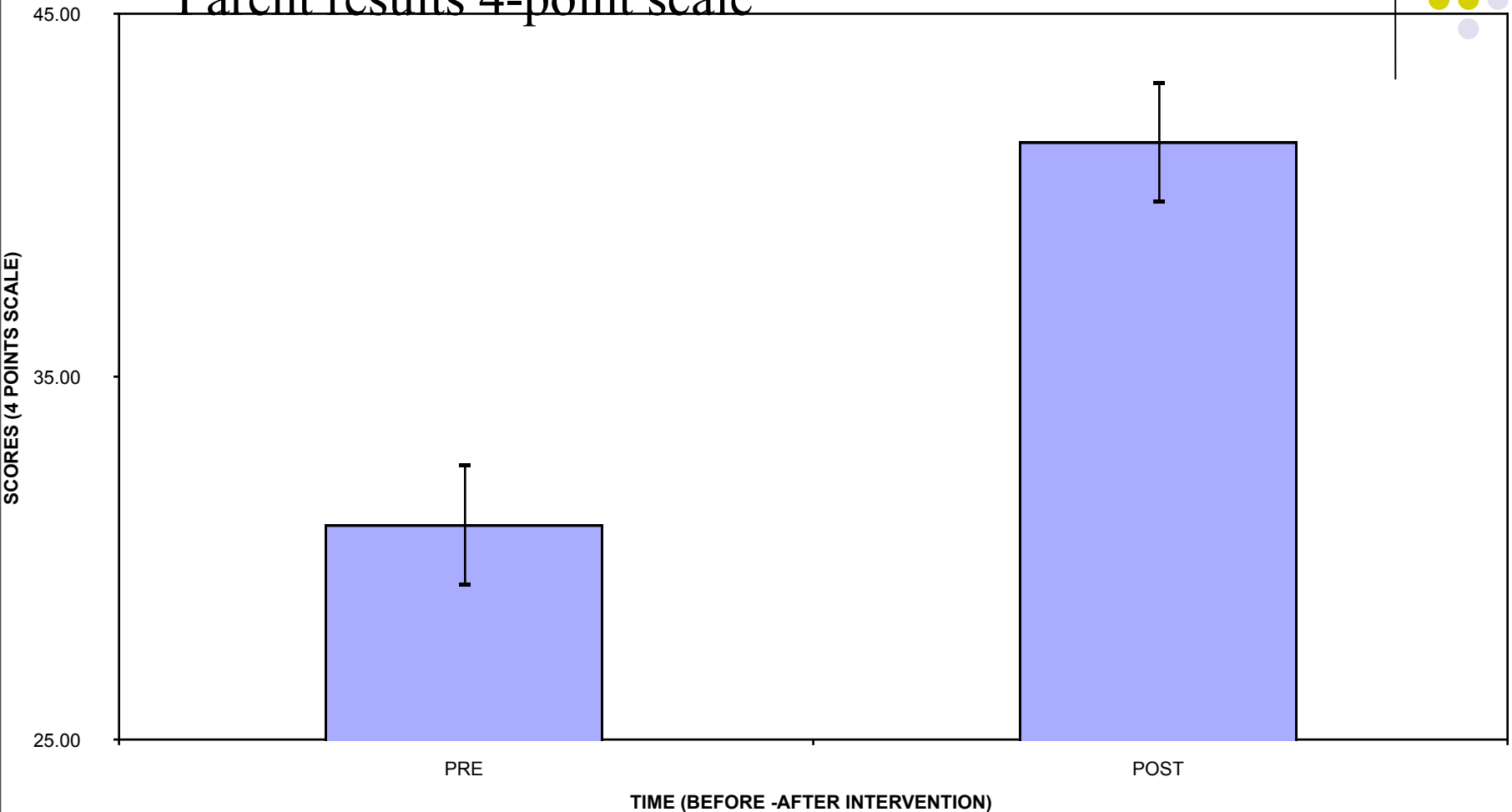


Positive change in behavior from PRE ($M = 45.52$) to POST ($M = 55.41$)
($t(19) = -4.577, p < 0.05$)

Changes in student's behavior

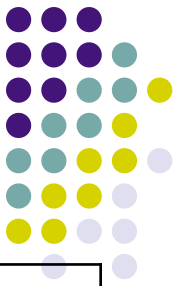


Parent results 4-point scale

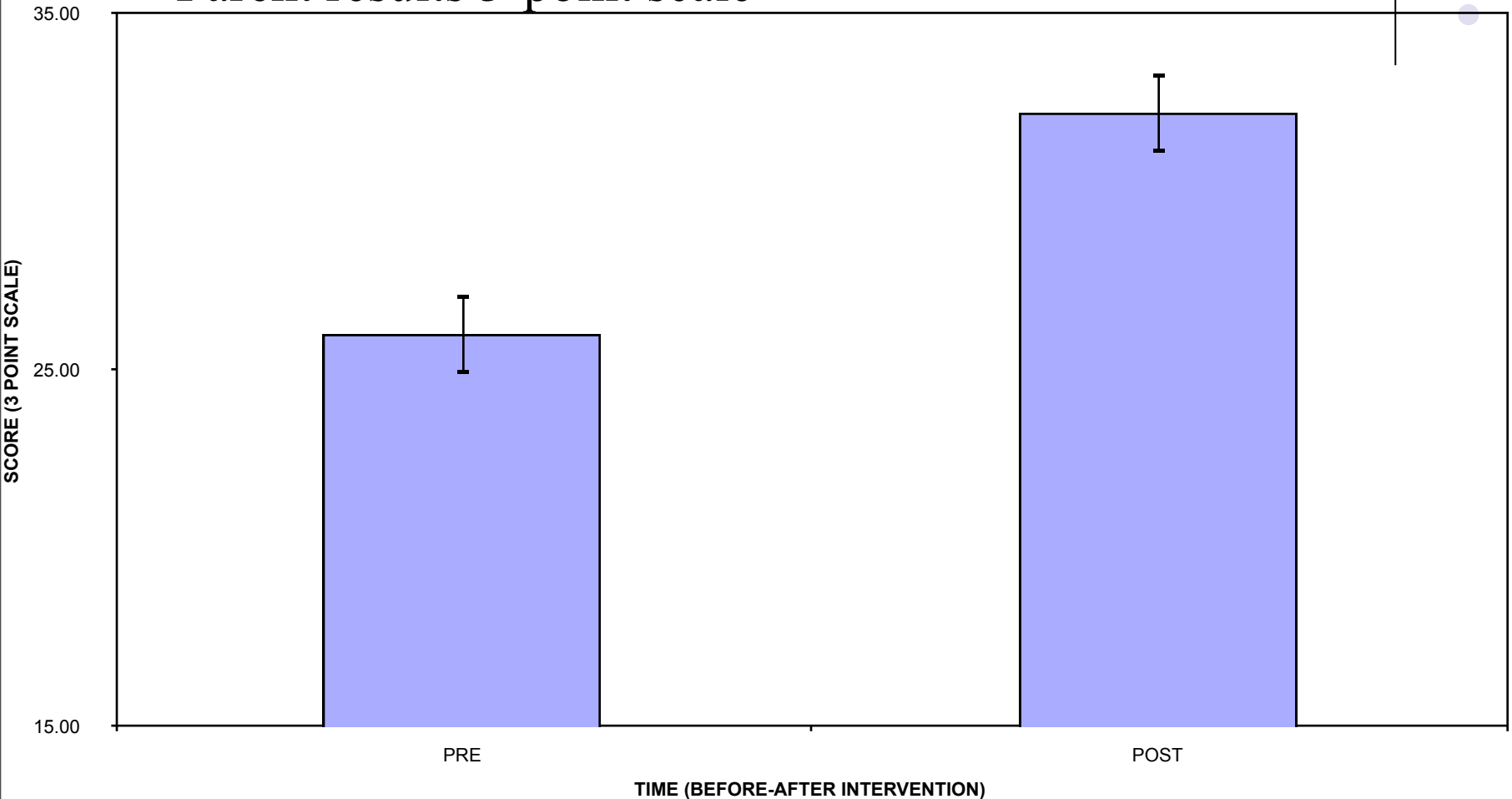


Positive change in behavior from PRE ($M = 30.93$) to POST ($M = 41.47$)
($t(14) = -4.190, p < 0.05$)

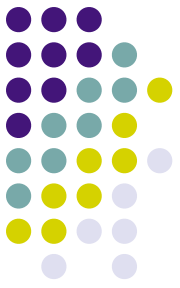
Changes in student's behavior



Parent results 3-point scale



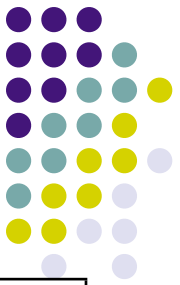
Positive change in behavior from PRE ($M = 26.01$) to POST ($M = 32.22$)
($t(12) = -5.132, p < 0.05$)



Item analysis

- Analysis based on percent of endorsement to the option “almost never” by the teacher
- May help us understand what behaviors might be more difficult to handle by teachers
- May help Psychological services to understand where teachers seem to need more help
- Perhaps an indication of areas for improvement in the interventions
- It is recommended to try a more formal analysis later

Item analysis



3-point scale

Item number	Item (percent endorsing “almost never”)
13.	Appears motivated to do good classroom work (42.9%).
15.	Expresses emotions (e.g., frustration, anger, etc.) age appropriately (46.4%).
17.	Can complain without acting angry (46.4%).
14.	Accepts feedback in a constructive way (50%).
18.	Knows how to solve problems well (53.6%).
22.	Knows how to act properly when angry (57.1%).

4-point scale

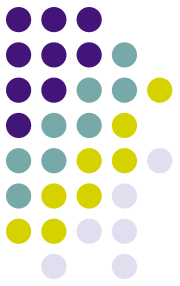
Item number	Item (percent endorsing “almost never”)
1.	Listens well in class. (14.7%).
22.	Knows how to act properly when angry (14.7%).
2.	Stays on task. (14.9%).
13.	Appears motivated to do good classroom work. (18.5%).
4.	Completes in-class assignments (22.7%).
6.	Completes and turns in homework. (28.6%).



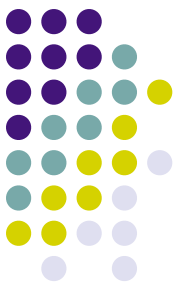
Use of interview sheet

- Initially it was troubling to notice that a group of psychologists did not use the interview sheets for goal setting with students and parents
- Procedural problems associated with the interview sheet rather than reflecting a lack of understanding about the importance of setting up goals with parents and students

Use of more than 10 sessions

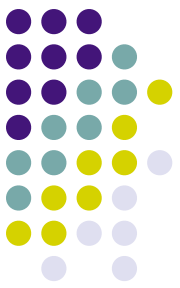


- Psychologists had great judgment in deciding when to use more than 10 sessions, since the students who received more than the 10 session ART had more behavioral problems at PRE, and also showed greater improvements at POST



Effect of ART workbooks

- Unclear: Unable to detect changes in the effectiveness of the intervention related to the use or not use of the workbook
- There is some indication that the use of the workbook can be beneficial
- A follow up study may help to fully understand the effect of the workbook



Unfinished items

- Development of benchmarks for the interventions
 - Only one intervention was implemented, and its use of outcomes is presently considered a pilot
- However, this is perhaps the most important next step in the path toward CQI:
 - Understand what can be expected from interventions (monitor when the results do not follow the expected outcomes)
- Continuous data monitoring (data are interpreted and corrective actions are implemented when necessary)
- With data collection comes responsibility and excitement
 - Feedback that will be fast and useful for improving practices
 - How are the interventions working? How to improve them?