

**UNIVERSITY OF  
WISCONSIN** **River Falls**

# **School Psychology Program Intervention Implementation Manual**

**Fall 2010**

*Scott Woitaszewski, Ph.D.  
Program Director & Associate Professor  
Licensed School Psychologist*

## Introduction

The UWRF School Psychology Program requires practicum and intern candidates to complete several direct interventions with school students during required field experiences. Successful completion of these interventions will be evidence of the candidate's positive impact on others and reflects a readiness to begin more independent practice.

Implementing interventions effectively requires careful planning. Successful interventions require several properly completed components. For example, use of evidence-based interventions, collaborative teaming, ensuring intervention integrity, and measuring the overall effectiveness of the intervention have all been found to increase success of school interventions. This intervention implementation manual will guide candidates through the steps, best practices, and other helpful processes involved.

As always, I am open to your questions and feedback.

Regards,

A handwritten signature in black ink, appearing to read "Scott Woitaszewski", followed by the text "PHD" in a smaller, simpler font.

Scott Woitaszewski, Ph.D.  
Program Director & University-Based Intern Supervisor  
Campus: (715) 425-3883  
Email: [scott.woitaszewski@uwrf.edu](mailto:scott.woitaszewski@uwrf.edu)  
Fax: (715) 425-3242

## TABLE OF CONTENTS

I.	Introduction	<b>Page 2</b>
II.	Evidence-Based Interventions	<b>Page 4</b>
III.	Structuring the intervention: Necessary components	<b>Page 6</b>
IV.	Intervention Teaming: Guidelines for Success	<b>Page 7</b>
V.	Intervention Integrity	<b>Page 9</b>
VI.	Measuring Intervention Effectiveness	<b>Page 12</b>
VII.	References	<b>Page 17</b>
VIII.	Appendixes	<b>Page 19</b>
	A) Intervention Case Study Appraisal Rubric	
	B) Sample Intervention Case Study Report	
	C) Sample Intervention Script/Integrity Checklist	
	D) Sample Generic Intervention Integrity Form	

# I. EVIDENCE-BASED INTERVENTIONS

School psychologists must prioritize the use of informed, data-based decisions (NASP, 2010). As part of this emphasis, Evidence-Based Practice (EBP) must be prioritized when developing and implementing interventions for students in schools.

Undoubtedly, confusion abounds on this topic, as many varied terms have been used to indicate some degree of research foundation for school-based interventions. Walker (2004) used the expression “**Intervention Efficacy**” for interventions that are research-based, structured, systematic, and involve an experimental design with a control group or other conditions from which causation may be determined. While “efficacious” interventions have tight internal validity (i.e., they work well under ideal conditions when monitored by researchers) they may not always be practical or supportable in the classroom. In contrast, the term “**Effective Interventions**” has been used to denote interventions that work well and are “socially valid under normal conditions” (Walker, 2004, p. 399). Walker noted that such effective interventions are much more difficult to demonstrate. Wright (2009) has elaborated on the issue and suggested the term “**Evidence-Based Interventions**” may also be used to represent interventions that are known to work in the classroom or other real-world settings. Whatever the term, school psychologists must strive to utilize strategies that are founded on firm research. Sometimes varying degrees of research support must be considered when determining an appropriate intervention.

The following guidelines are offered to help school psychologists and intervention assistance teams plan for a high level of evidence-based intervention implementation while maintaining a measure of flexibility and reality:

- 1) *Develop team consensus about what is meant by “evidence-based”* (Wright, 2009). Consider the terms used in this manual. Ultimately, research that includes objective data, resulting in effects that are applicable in the real world should be prioritized. Research that has been replicated and/or published by respected professional organizations and journals (peer-reviewed) should be viewed as favorable as well
- 2) *Adopt an effective research “continuum”* (Wright, 2009). Sometimes there are no stringent evidence-based interventions available to meet a specific student’s needs. In these cases, intervention teams must consider the best available studies, and the development of a continuum of practice may be helpful. For an example of an intervention continuum, see: [www.k8accesscenter.org/training\\_resources/documents/ACResearchApproachFormatted.pdf](http://www.k8accesscenter.org/training_resources/documents/ACResearchApproachFormatted.pdf). This resource has divided interventions into “emerging,” “promising,” and “evidence-based practices” depending on the level of research support behind the intervention.

- 3) *Consider on-line rating sites for commercial intervention products.* The *What Works Clearinghouse* (for academic and behavioral domains): <http://ies.ed.gov/ncee/wwc/> , the Florida Center for Reading Research: <http://www.fcrr.org/> , and <http://www.interventioncentral.org> are helpful starting points.
- 4) *Consider using “knowledge brokers” in the school district* (Wright, 2009). Knowledge brokers are district experts chosen based on training, experience or interests (Ervin & Schaughency, 2008). They may agree to maintain their knowledge through reading journals and attending conferences to keep up with emerging research. Knowledge brokers periodically share their knowledge with colleagues, and may help districts develop intervention scripts (see Section IV on Intervention Integrity for more information on intervention scripts).
- 5) *Even if there is little or no research support for an approach,* intervention teams can improve outcomes by clearly matching the intervention with the student’s needs (e.g., FBA, CBM probes), delivering interventions using explicit instruction (i.e., always including skill building as part of any intervention), giving the student many opportunities to respond, and providing timely feedback.
- 6) *Finally, the single-case design method described in the remaining sections of this manual will add evidence to a school intervention process.* If little or no published data supporting an intervention are available, intervention teams may choose to measure the impact of an intervention idea through single-case design intervention measurement (i.e., using baseline and intervention phases). Such an approach may result in data for future consideration.

## II. STRUCTURING THE INTERVENTION

Evidence-based interventions are *systematic* and *comprehensive*. The intervention assistance team is highly encouraged to work through a series of steps to increase the likelihood of a successful intervention. UWRF practicum and intern candidates must design and implement interventions that include four distinct parts:

- 1) Problem Identification
- 2) Problem Analysis
- 3) Intervention
- 4) Evaluation

Each part must be described successfully in a written report, usually 5-10 single-spaced pages in total. See Appendix A for the **Intervention Case Study Appraisal Rubric**. This rubric will act as a guide to structuring the four parts noted here and the specific components of each part. Additionally, the rubric will be used by faculty members to ensure all portions of an intervention are successfully included. Practicum and intern candidates are highly encouraged to review this rubric *in advance of starting any intervention* to determine and understand all important parts of these required interventions. Utilizing the rubric, each successful intervention case will include all or most of the rubric components, including but not limited to: an operational definition of the interfering behavior, clear collaboration with other educators and parents, collection of baseline data, consideration and testing of various hypotheses, observable intervention goals, use of evidence-based interventions, and measurement of intervention integrity. See Appendix B for a sample written report.

# III. INTERVENTION TEAMING: GUIDELINES FOR SUCCESS

The process of problem-solving teaming is known to improve outcomes for students and schools (Burns & Symmington, 2002). While such teams are known by a variety of names (e.g., pre-referral teams, student assistance teams, etc.), the term **Intervention Assistance Team (IAT)** (Rathvon, 2008) will be used throughout this manual to maintain consistency. An IAT includes educational professionals from a variety of fields with a goal to provide proactive interventions to individuals and classrooms of students. Prevention and early intervention are emphasized.

Intervention Assistance Teams provide an excellent foundation for implementing the various intervention practices noted throughout this manual. *School psychologists are not expected to design, implement, and measure interventions alone.* Likewise, UWRF practicum and intern candidates need not complete interventions unaided. Collaboration is both desirable and required as part of the process. Together, team members consider evidence-based practices, assess and collect data about the student, and make follow-up decisions about the student's needs. See the *Intervention Case Study Appraisal Rubric* in Appendix A for details on how and when to ensure a collaborative process.

## Teaming Best Practices

The following recommendations are offered to help facilitate Intervention Assistance Team Success:

- 1) *Clarify team goals early in the process.* Be sure all team members are in agreement about the purpose of the team. Teams are most effective when they represent *sharing* responsibility as opposed to *shifting* responsibility (Burns, Wiley, & Viglietta, 2008). As an example, intervention teams are less effective when teachers expect to shift a child out of the general classroom and into the hands of special education. Likewise, intervention teams may struggle if a school psychologist expects the general education teacher to implement and measure intervention effectiveness alone. Teaming expectations must be clear.
- 2) *Maintain a discussion time limit during meetings.* Sprick (1999) recommended no more than 25 minutes be spent on a single child during a teaming. Others suggest even less (e.g., 10-15 minutes, Burns et al., 2008). Regardless, excessive discussion that involves "admiring the problem" is discouraged. While team members may gain relief from venting about a challenging student, this type of discussion should be minimized as the added time involved can lead to a discouraged and ineffective team in the long term.
- 3) *Ensure administrator support for the team.* When school administrators vocally support a team, the team is more likely to be viewed as important and will more likely function as intended (Rathvon, 2008).

- 4) *Expect initial resistance to intervention process and ideas.* Indeed, about 85% of teachers resist intervention ideas from consultants, at least at first (DeBoer, 1995). Resistance has been found to be related to the complexity of the intervention, the time required to implement, the number of materials or resources required, and the perceived effectiveness of the intervention (Gresham, 1989). Teams can increase acceptance by reducing the “expert model” and fully understanding the teacher’s perspective about what has already been tried. Additionally, teams should strive to minimize intrusiveness in the classroom, have several options ready, and conceptualize the challenging situation as stemming from many sources (see Rathvon, 2008, for ideas). As a summary rule of thumb: keep it simple and use evidence-based practices.
- 5) *Those with the most contact with the child/family should have the biggest voice in the intervention process.* Be sure to collaborate closely with parents, families, caretakers, and teachers.
- 6) Students with academic and behavioral challenges often have many needs. Address the child’s “big needs” first (for example, the need the child would want to set as a goal).



## IV. INTERVENTION INTEGRITY

Traditionally, many school psychologists have utilized a “consult and hope” philosophy. In such cases, a student intervention plan is developed, recommendations are made to teachers and/or parents, and best wishes for success are offered. The school psychologist may “swoop in and swoop out” without insufficient attention given to proper follow-up or measurement of outcomes.

In a recent survey of nationally certified school psychologists, only 11% claimed to “always” assess intervention integrity during consultation and no integrity records were found in teaming procedures 67% of the time (Cochrane & Laux, 2008). **Intervention Integrity** is the term used to reflect the degree to which a planned intervention was implemented as designed (Windram, 2009). Other terms such as “Intervention Fidelity” and “Treatment Integrity” may be used for the same concept, but “Intervention Integrity” will be used to maintain consistency in this manual. In recent years, with data-based decision making becoming a more noted emphasis, school psychologists have been more inclined to consider a more systematic approach to determining intervention effectiveness, starting with assessing if the intervention was conducted properly.

When considering intervention integrity, an intervention team must ask specifically, “Is the intervention being done at all?” “Is the intervention being done well?,” and “What are the reasons for progress or lack of progress with an intervention?” A *clear and systematic* intervention integrity measurement process will help answer these questions.

Intervention Integrity measurement is *a necessary* component of all interventions for students in schools. Without measurement of integrity, intervention team members are leaving the process open to questionable plan adherence and, ultimately, unknowns about the true effectiveness of an intervention approach. If intervention integrity is low, the outcomes are by nature, unclear. When an evidence-based intervention is used and intervention integrity is high, a positive outcome can be expected. See Figure 1 for a visual representation of this process.

**Figure 1**  
**What are the reasons for intervention progress or lack of progress?**  
 (adapted from Gresham, 2007)



	<b>Evidence-Based Intervention</b>	<b>Unknown/Unclear Intervention Support</b>
<b>HIGH Intervention Integrity</b>	Positive intervention effectiveness expected	Possible positive outcome (left to chance)
<b>LOW Intervention Integrity</b>	Possible positive outcome (left to chance)	Poor outcome expected

Measurement of intervention integrity must be carried out with significant care and thought. The goal is not to oversee and dissect everything a teacher or parent does. Rather, those responsible for measuring intervention integrity must have a good working relationship with those responsible for carrying out the intervention. When the relationship is collaborative, performance feedback about the intervention process becomes more acceptable. In fact, written and verbal performance feedback has been found to be extremely valuable to successful intervention implementation (Windram, 2009). To build rapport, school psychologists are encouraged to consider taking responsibility for doing some interventions in their entirety when working with a new teacher or parent. Data can be collected and shown to others, and the process can be modeled. The ultimate message can be “Here is how we can make your life easier!” and “I’m available to help” (Windram, 2009).

### Specific Intervention Integrity Tools

There are multiple ways to measure intervention integrity. Gresham, MacMillan, Beebe-Frankenberger, and Bocian (2000) suggested schools consider using direct observations, rating scales (self- or other), permanent products, and interviews. Windram (2009) argued that **direct observation** is the most reliable of these methods, as options like self-reporting are generally considered to be of low reliability and should be used sparingly or not at all. The SCRED district in Minnesota has developed evidence-based **Intervention Scripts** with associated intervention integrity checklists (for observers). These scripts and integrity checklists are saved and stored for easy access. If the intervention team needs to address a case of test anxiety, for example, an evidence-based intervention script and integrity checklist may be available already. See Figure 2 for a sample intervention integrity rating scale used by an observer of a classroom reading intervention (Gresham, 2007). See Appendix C for a sample intervention script and integrity checklist for another reading intervention. See Appendix D for a more general integrity checklist that could be adapted as needed. ). School psychologists are encouraged to develop their own integrity checklists, as needed. A system that measures the percentage of steps completed successfully is often most helpful

**Figure 2: Intervention Integrity Rating Scale for a Reading Intervention**  
(adapted from Gresham, 2007)

Component	Low integrity			High integrity
	1	2	3	4
Classroom Organized				
Teacher uses scripted lessons				

Uses appropriate error correction			✓	
Quick pacing				✓
Provides multiple opportunities to respond		✓		
Provision of positive reinforcement				✓
				<b>Total = 19/24 (79%)</b>

### Interpreting Intervention Integrity Results

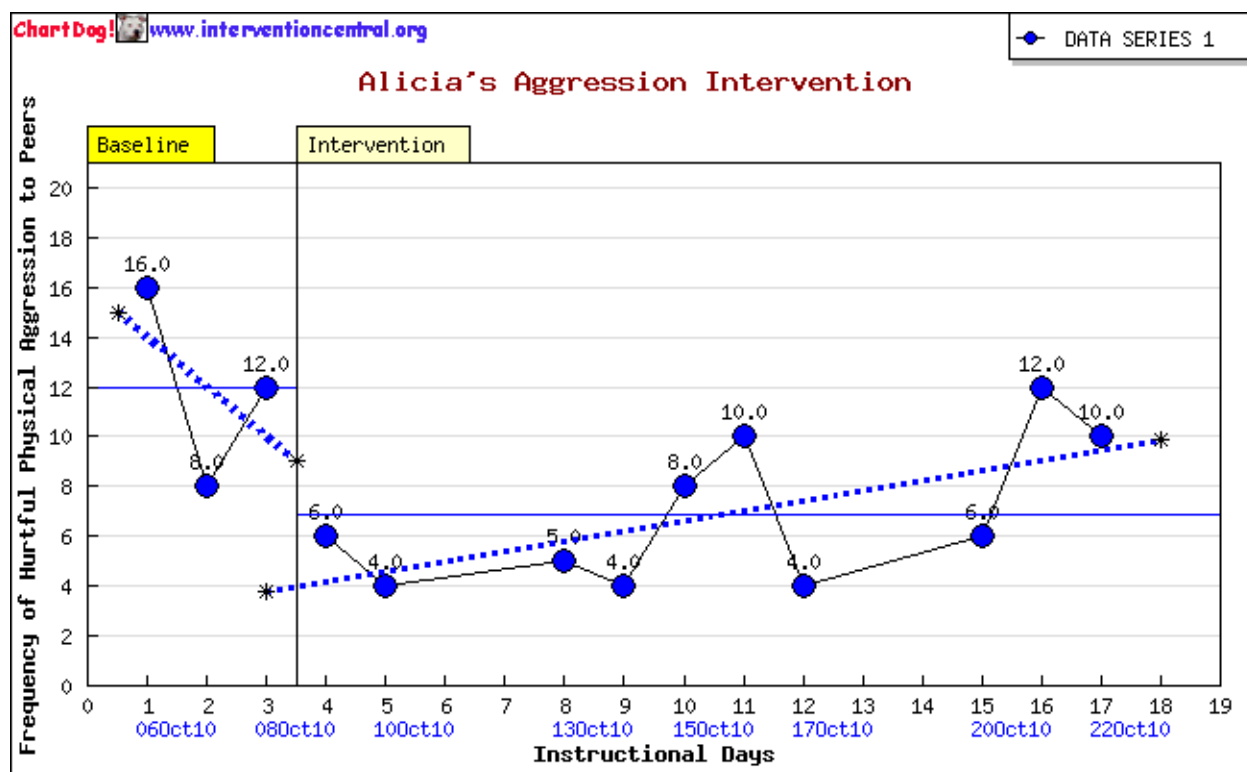
Gresham et al. (2000) suggested intervention teams should strive for at least an 80% level of intervention component completion. At that level or better an intervention may be considered properly completed. In the rating scale example in Figure 2, the intervention would then be viewed as at or nearing sufficient integrity, according to Gresham’s guide. In contrast, the SCRED district strives to check integrity through direct observation within 48 hours and then as often as needed to get to **100% integrity** (Windram, 2009). Performance feedback is utilized to help those implementing the intervention become more skilled. Observers may graph integrity data or provide other written feedback. As an expected component of the intervention process, the SCRED district provides regular training to all teachers and school psychologists on this process. Intervention integrity among teachers completing interventions has been found to decrease to low levels within 1 to 10 days (Hagermoster-Sanetti & Kratochwill, 2009). Given this tendency, intervention teams are encouraged to check intervention integrity periodically, even after high or 100% integrity has been determined.

The study of how intervention integrity is defined, measured, and used is *still a work in progress*. A level of sufficient implementation has not been agreed upon. Additionally, in the examples provided here, all components were given equal weight, a common practice that appears questionable. There are unknowns about what components of each intervention are most critical to an effective outcome. It is conceivable that one component of a behavioral intervention, for example, may be twice as important as some other component of the intervention. School psychologists are encouraged to be flexible, giving thought to the process before, during, and after an intervention, and collecting data about the process itself, with a goal of continual improvement.

## V. MEASURING INTERVENTION EFFECTIVENESS

Beyond assessing intervention integrity, interventions completed by UWRF practicum and intern candidates must be measured for general effectiveness. Most single-case design interventions will include one baseline “phase” and one intervention “phase.” See Figure 3 for a visual representation of this type of phased intervention.

Figure 3  
(graph designed with ChartDog, found at [www.interventioncentral.org](http://www.interventioncentral.org)).



This phased system is also known as an **AB design**, where the A represents the baseline and the B represents the intervention. Other designs (e.g., ABAB) may be considered for your intervention, but are not required. See Lee & Axelrod (2005) for additional design ideas. While an AB design has limitations, it is an acceptable way to measure the success of the intervention for the child in question. The key question for each intervention is this:

*“Is there meaningful change from the baseline phase to the intervention phase?”*

In addition to assessing intervention integrity, periodic data about the behavior in question must be kept during both phases in order to answer this question. Tallying the *frequency* of a behavior or skill works best in this system, as opposed to measuring behavioral duration or intensity. Keeping frequency data is usually a simple and acceptable way to monitor a student’s progress for most teachers and other educators. In some cases, a decrease in behavioral frequency will be

desired (e.g., physical aggression). In other cases, an increase in frequency will be desired (e.g., words read per minute). However, not every intervention opportunity lends itself easily to frequency counts. For example, a struggling student may have an average of one lengthy and serious “meltdowns” per week. Showing a significant reduction in the frequency may be difficult and perhaps impractical. Nevertheless, a team may wish to reduce the number of minutes per week the student experiences the meltdown behavior. In such cases, the intervention team could measure “minutes” as opposed to “number of incidents” and set a goal of reducing minutes from 90 minutes at baseline to a more realistic level (e.g., 30 minutes or less) during the intervention phase.

In an AB design, a significant change from the baseline is needed to confidently state intervention effectiveness. Assuming a high level of intervention integrity and finding an answer of “yes” to the change question will mean there is adequate evidence to suggest the intervention had a positive impact for the student. While not clear “proof” of effectiveness, an AB design takes school psychologists beyond the “consult and hope” method to a more reliable data-based decision making process.

### **Specific Techniques for Measuring Effectiveness**

Traditionally, even when data are collected and graphed properly, many educators have simply “eyeballed” the data to determine if the intervention has worked. Using this method, team members simply look at the graphs and estimate effectiveness based on the visual representation of the data. Depending solely on this method may be problematic, as intervention team members may have differing ideas on what should be considered enough change. Some team members may expect complete elimination of a problematic behavior or full growth to grade or age level expectations. This is not realistic for some problems or some students. Again, the goal should be to determine if meaningful change from the baseline level has occurred. Gradual growth may be considered meaningful in many cases.

Fortunately, more reliable methods for measuring effectiveness are available. At UWRF, one of two options to determine the difference between the baseline and intervention phases is required for practicum and internship interventions. The use of an **Effect Size (ES)** or **Percentage of Non-Overlapping Data Points (PND)** can be calculated through the free online software ChartDog, found at <http://www.interventioncentral.org>.

Effect Size can be defined as the “magnitude of the difference” between phases. It is a measure of “practical significance” and helps answer the all-important questions, “Should we as school psychologists and educators be confident in the impact of the intervention?” or “Are the changes big enough or too small to be meaningful in the real world?” The Effect Size option should be the preferred choice for answering these questions when there is considerable variation in the baseline data (i.e., there is no clear visual trend in the data). Alicia’s aggression example in Figure 3 shows an inconsistent baseline situation where using the ES would be appropriate. Several varied effect sizes options exist, but ChartDog will calculate the widely used 'standardized difference approach' (Shernoff, Kratochwill, & Stoiber, 2002), where the following formula is used. This ES may be calculated by hand relatively quickly, but ChartDog makes it even easier!

$$ES = \frac{\text{mean of the intervention data} - \text{mean of the baseline data}}{\text{standard deviation of the baseline data}}$$

The Percentage of Non-Overlapping Data Points (PND) is an alternative to the Effect Size measure, for use when the baseline data are consistent (i.e., when a trend is apparent). Like the Effect Size measure, the PND helps determine the magnitude of change. PND is the most common way to determine the magnitude of change for interventions (Riley-Tillman & Burns, 2009). While not fool-proof, these measures add reliability to the decision making process.

### Using the ChartDog Graphmaker

To create AB design graphs with trend lines and to assess Effect Size or the Percentage of Non-overlapping data points, follow steps 1 to 6, as summarized next. Alicia's aggression example from Figure 3 is used as an example. For additional details, see the ChartDog manual, found online at: [http://www.jimwrightonline.com/php/chartdog\\_2\\_0/manual/chartdogman.html](http://www.jimwrightonline.com/php/chartdog_2_0/manual/chartdogman.html).

1. Go to <http://www.interventioncentral.org>. See the menu bar column on the right side of the opening page to find and click on *ChartDog*.
2. *Set up the chart structure in Section 1.* Most of the default settings are appropriate, but consider adding titles for the chart and the vertical and horizontal axes. See below:



**Section 1: Enter Chart Settings.** Enter chart title and descriptions of data to be entered, select basic settings for data display, etc.

? Chart Title:	<input type="text" value="Alicia's Aggression Intervention"/>
? Title for Vertical (Y) Axis Data:	<input type="text" value="[Select CBM Measure to Be Charted]"/> OR <input type="text" value="Type In Your Own Custom Y-Axis Title: Frequency of Hurtful Physical Aggression to Peers"/>
? Title for Horizontal (X) Axis Data:	<input type="text" value="Instructional Days"/> OR <input type="text" value="Type In Your Own Custom X-Axis Title:"/>

3. *Choose data analysis options in Section 2.* There are four options, including the Effect Size and Percentage of Non-Overlapping Data points. At a minimum, choose either the ES or the PND analysis, again depending on the nature of your baseline data. Requesting the trendline and phase mean options are helpful, too, and encouraged. The dropdown arrows for each method must be clicked on to choose a specific analysis option. See below:



## Section 2: Data Analysis. Select one or more methods of analysis for data-series:

Data Series 1: Compute trend (regression) line for all phases.

Data Series 1: Compute mean values for datapoints by phase.

Data Series 1: Compute PNDs (% non-overlapping LOWER datapoints) by phase.

Data Series 1: Compute effect sizes by phase

4. Enter student data (e.g., frequency of the interfering behavior) in Section 3. Select dates and add frequency counts in the “Observation 1” box. Be sure to check “Phase Change” on the first observation for baseline data and then again when data represent the Intervention data. A graph label may be added for each of these phases as well. See below for a sample of the first five date entries for Alicia:



## Section 3: Enter Data Observations.

<b>01</b>	October	6	2009	16	<input checked="" type="checkbox"/>	Baseline
	Month	Day	Year	Obsv 1	Obsv 2	Phase Change?
<b>02</b>	October	7	2009	8	<input type="checkbox"/>	
	Month	Day	Year	Obsv 1	Obsv 2	Phase Change?
<b>03</b>	October	8	2009	12	<input type="checkbox"/>	
	Month	Day	Year	Obsv 1	Obsv 2	Phase Change?
<b>04</b>	October	9	2009	6	<input checked="" type="checkbox"/>	Intervention
	Month	Day	Year	Obsv 1	Obsv 2	Phase Change?
<b>05</b>	October	10	2009	4	<input type="checkbox"/>	
	Month	Day	Year	Obsv 1	Obsv 2	Phase Change?

5. Click on “Create Chart.” A graph similar to Figure 3 will result. The chart may be a helpful visual representation for teachers and other educators to monitor student intervention progress. Data from the specific analysis options chosen will also result, providing a more quantified assessment of progress. See Figure 3 and below for Alicia’s results:

### Effect Sizes for Data Series

EFFECT SIZES FOR Series 1:

\*Phase 2 of Series 1 (containing 10 data points) showed an **Effect Size of -1.27** when compared with data from Phase 1 (containing 3 data points).

6. *Interpret the results.* Again, be sure to prioritize an effectiveness method based on the nature of the baseline data (i.e., the ES choice is well suited for highly varied baseline data, whereas PND is best for relatively consistent baseline data). The following is an example of PND data resulting from ChartDog:

### *Percentage of Non-Overlapping Data Points (PNDs) for Data Series*

PNDs FOR Series 1 (% Non-Overlapping LOWER Datapoints Compared to Previous Section):

Phase 2 of Series 1 contains 10 data points. **PNDs in this phase were 60%** when compared to data in Phase 1.

ChartDog does not offer many interpretive details. However, the following guide is helpful for interpreting ES and PND data. *NOTE:* a negative ES simply implies a lower intervention phase mean, relative to the baseline. The same interpretive guide can be applied to both positive and negative Effect Size values.

Percent of non-overlapping data (PND):

- PND of 85%+ = **Highly effective**
- PND of 65 to 84% = Moderate effectiveness
- PND of 50 to 64% = Questionable effect

Effect size (ES) (Cohen, 1988):

- +/- .80 = **Large Intervention Effect**
- +/- .50 to .79 = Moderate Effect
- +/- .20 to .49 = Small Effect

### **Sample Evaluation of Intervention Effectiveness: Alicia's Aggression**

The charts and data in the previous section all represent an intervention for Alicia, a 6<sup>th</sup> grader at Adams Middle School, who has struggled with physical aggression toward peers. Given the relatively varied baseline data, the school psychologist chose to emphasize the Effect Size (ES) as the primary determinate of intervention effectiveness. The ES for Alicia was  $-1.27$ , a value well over the +/- .80 value suggested by Cohen (1988) to reflect large effects. Moreover, through direct observation of the teacher and the paraprofessional responsible for implementing the intervention in the classroom, the integrity for this intervention was found to be 100%. As such, the school psychologist has excellent data supporting the effectiveness of the intervention to decrease Alicia's aggression. From the graph in Figure 3, we can see Alicia's aggression has not been eliminated but the ES suggests a strong and meaningful change from baseline the baseline has occurred. Despite this strong effect, caution is warranted in this case. The trendline appears to be showing a slight upward overall trajectory in physical aggression as time progresses in the intervention phase. While change has been evident, the effect may not be permanent and Alicia's behavior may be trending back to baseline levels. Intervention integrity should continue to be monitored closely. Adaptations may be needed.



## References

- Burns, M. K., & Symington, T. (2002). A meta-analysis of pre-referral intervention teams: student and systemic outcomes. *Journal of School Psychology, 40* (5), 437-447.
- Burns, M. K., Wiley, H. I., Viglietta, E. (2008). Best practices in facilitating problem-solving teams. In A. Thomas & J. Grimes (Eds.) *Best practices in school psychology (5th Ed.)*. Bethesda, MD: National Association of School Psychologists.
- Cochrane, W. S., & Laux, J. M. (2008). A survey investigating school psychologists' measurement of treatment integrity in school-based interventions and their beliefs about its importance. *Psychology in the Schools, 45*, 499-507.
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (second ed.). Lawrence Erlbaum Associates.
- DeBoer, A. (1995). *Working together: The art of consulting and communicating*. Longmont, CO: Sopris West.
- Ervin, R. A., & Shaughency, E. (2008). Best practices in accessing the systems change literature. In A. Thomas & J. Grimes (Eds.) *Best practices in school psychology (5th ed.)*. Bethesda, MD: National Association of School Psychologists.
- Gresham, F. M. (1989). Assessment of treatment integrity in school consultation and prereferral intervention. *School Psychology Review, 18*, 37-50.
- Gresham, F., MacMillan, D. L., Beebe-Frankenberger, M. E., & Bocian, K. M. (2000). Treatment integrity in learning disabilities intervention research: Do we really know how treatments are implemented? *Learning Disabilities Research & Practice, 15*(4), 198-205.
- Gresham, F. M. (2007). Treatment integrity/fidelity: A crucial feature of the RTI process. Presentation at the annual convention of the National Association of School Psychologists (NASP). New York.
- Hagermoser Sanetti, L. M., & Kratochwill, T. R. (2009). Treatment integrity assessment in the schools: An evaluation of the Treatment Integrity Planning Protocol (TIPP). *School Psychology Quarterly, 24*, 24-35.
- Lee, D. L., & Axelrod, S. (2005). *Behavior modification: Basic principles (3<sup>rd</sup> Ed.)*. Pro Ed: Austin, TX.
- National Association of School Psychologists (2010). *Standards for school psychology: Graduate preparation and credentialing for school psychologists*. Bethesda, MD: NASP.

- Rathvon, N. (2008). *Effective school interventions: Evidence-based strategies for improving student outcomes (2<sup>nd</sup> Ed.)*. Guilford Press.
- Riley-Tillman, T. C., & Burns, M. K. (2009). *Evaluating educational interventions: Single-case design for measuring response to intervention*. Guilford press.
- Shernoff, E.S., Kratochwill, T.R., & Stoiber, K.C. (2002). Evidence-based interventions in school psychology: An illustration of task force coding criteria using single-participant research design. *School Psychology Quarterly*, *17*, 390-422.
- Sprick, R. (Producer). (1999). *25 minutes to better behavior [Videotape]*. Frederick, CO: Sopris West.
- Walker, H. M. (2004). Commentary: Use of Evidence-Based Interventions in Schools Where We've Been, Where We Are, and Where We Need to Go. *School Psychology Review*, *33* (3), 398-407.
- Windram, H. (2009, Fall). Implementation integrity within a RtI framework: Critical roles and tools for school psychologists. Presentation at the fall conference of the Wisconsin School Psychologists Association (WSPA). Wisconsin Dells, WI.
- Wright, J. (2009, Fall). RTI: What is an evidence-based intervention? Presentation at the fall conference of the Wisconsin School Psychologists Association (WSPA). Wisconsin Dells, WI.

Appendix A

**UW-RF School Psychology Training Program  
Intervention Case Study Appraisal Rubric**

**Candidate:** \_\_\_\_\_

**Rater:** \_\_\_\_\_

**Year in Program:** 3<sup>rd</sup> (Practicum) or 4<sup>th</sup> (Intern)

**Date:** \_\_\_\_\_

---

---

**RATING INSTRUCTIONS:**

While passing levels will vary by year in the program (see table below), all ratings should be assigned with the expectations of a graduating intern in mind. Feedback to the candidate should be provided about her or his intervention skills/awareness relative to graduating intern expectations. A non-passing level TOTAL score may necessitate the development of a “Professional Growth Plan” (see Appendix Y of the Program Handbook) or other new goals for the candidate.

The Intervention Case Study rubric has 57 total points. Passing levels vary by year in program, as follows:

Year in Program	TOTAL rubric passing level
<i>Practicum, Year 3</i>	<b>70% (40+)</b>
<i>Intern, Year 4</i>	<b>80% (47+)</b>

Please rate the candidate on each item using the scale below. Comments on any particular strength or challenging characteristic may be written in the box at the end of the rubric.

**RATING SCALE:**

**1:** This intervention component is not clearly included or minimally described  
**2 or 3:** This intervention component is adequately described or comprehensively described (assignment of 2 or 3 will depend on maximum item score – varies by item).

<b>Section 1: Problem Identification</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>LEVEL</b>
<b>1.1</b>	Student's behavior is defined in the context of appropriate grade and/or peer expectations	The student's behavior is operationally defined.	The student's behavior is identified by not operationally defined.	
<b>1.2</b>		The problem is collaboratively defined.	The problem is not collaboratively defined.	
<b>1.3</b>	The discrepancy between current and desired level of performance is explained.	The behavior is operationally defined or quantified in terms of both current and desired level of performance	The behavior is not operationally defined in terms of both current and desired levels of performance.	
<b>1.4</b>	Baseline includes the student behavior and peer/grade norms and expectations with computed trend lines.	A baseline for the student is established using sufficient data.	A baseline for the student behavior is not established or has insufficient data.	
<b>1.5</b>		The student behavior is identified as a skill deficit or a performance deficit.	The student behavior is not identified as a skill or performance deficit.	
<b>1.6</b>		Parents/guardians and teachers are involved in the problem-identification process.	Parents/guardians and teachers are not involved in the problem-identification process.	
<b>TOTAL</b>				

<b>Section 2: Problem Analysis</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>LEVEL</b>
<b>2.1</b>	Hypotheses are generated through collaboration with teacher and/or parents.	One or more hypotheses are developed to identify the functions that the behavior serves and/or the conditions under which the behavior is occurring (two or more of the following factors: child factors, curriculum, peers, teacher, classroom, home.)	Hypotheses are not developed or are developed in only one area and/or hypotheses are not measurable.	
<b>2.2</b>	There are multiple sources of data that converge on each proposed hypothesis.	There is evidence that appropriate data are collected to confirm or reject the proposed hypotheses. Appropriate data include one or more of the following: record review, interview, observation, testing, self-report.	Appropriate data are not collected to confirm or reject the hypotheses.	
<b>2.3</b>		Hypotheses reflect an awareness of issues of diversity (e.g., physical, social, linguistic, cultural).	Hypotheses do not reflect an awareness of issues related to diversity.	
<b>TOTAL</b>				

<b>Section 3: Intervention</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>LEVEL</b>
<b>3.1</b>		Intervention is linked to observable, measurable goal statement(s).	Intervention is not linked to observable, measurable goal statement(s).	
<b>3.2</b>		Intervention selection is based on data from problem analysis and hypothesis testing.	Intervention selection is not based on data from problem analysis and hypothesis testing.	
<b>3.3</b>		Intervention is evidence-based (e.g., research literature, functional analysis, single case design analysis).	Intervention is not evidence-based.	
<b>3.4</b>		Intervention is developed collaboratively.	Intervention is not developed collaboratively.	
<b>3.5</b>		Intervention reflects sensitivity to individual differences, resources, classroom practices, and other system issues. Acceptability of intervention is verified.	Intervention does not reflect sensitivity to individual differences, resources, classroom practices, and other system issues. Acceptability of intervention is not verified.	
<b>3.6</b>		Logistics of setting, time, resources, and personnel are included in the intervention plan.	Logistics of setting, time, resources and personnel are not included in the intervention plan.	
<b>3.7</b>		Intervention selection considers unintended outcomes or limitations.	Intervention selection does not consider unintended outcomes or limitations.	
<b>3.8</b>		Intervention is monitored and data are provided to ensure that it is implemented as designed (Intervention Integrity)	Intervention Integrity is not monitored.	
<b>TOTAL</b>				

<b>Section 4: Evaluation</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>LEVEL</b>
<b>4.1</b>	Charting includes student performance trend lines and/or goal lines.	Progress monitoring data are demonstrated on a chart.	Progress monitoring data are not demonstrated on a chart.	
<b>4.2</b>	Progress monitoring data are demonstrated to be effective when compared to data generated from multiple sources/settings.	Progress monitoring data are demonstrated to be effective when compared to baseline data.	Intervention is not demonstrated to be effective through data comparison.	
<b>4.3</b>	Responses to Intervention data are used to inform problem-solving and decision making. Single-case design was specified.	Data are used to inform further problem solving and decision making (i.e., continuation of intervention, modification of intervention, maintenance of intervention).	Data are not used to inform further problem-solving and decision making.	
<b>4.4</b>	Strategies for transfer/generalizing outcomes to other settings are documented as effective.	Strategies for transfer/generalizing outcomes to other settings are addressed.	Strategies for transfer/generalizing outcomes to other settings are not addressed.	
<b>4.5</b>	Modifications for future interventions are considered based upon collaborative examination of effective data.	Effectiveness of intervention is shared through collaboration with parents, teachers, and other personnel.	Effectiveness of intervention is not shared or communicated.	
<b>4.6</b>	Strategies for follow-up are developed and implemented.	Suggestions for follow-up are developed (e.g., continued progress monitoring, transition planning).	Suggestions for follow-up are not developed.	
<b>TOTAL</b>				

**Summary Data for the Intervention**

<b>CASE STUDY OVERALL RATING</b>	
<b>Section 1 TOTAL</b>	___/15
<b>Section 2 TOTAL</b>	___/8
<b>Section 3 TOTAL</b>	___/16
<b>Section 4 TOTAL</b>	___/18
<b>RUBRIC TOTAL</b>	___/57 P or F
<b>Intervention Integrity Rating</b> (separate form) (80 to 100% is considered acceptable)	___%
<b>Effect Size or Percent of Non-Overlapping Data</b>	___

*Comments/Recommendations:*

\_\_\_\_\_  
**Supervisor/Date**

## Appendix B

### *Intervention Case Study Example: Kara*

#### **Problem Identification**

Kara has recently turned in an average of 55% of her assignments per week. Her teacher indicated that in order for Kara to achieve a higher level of academic competency, it was important for her to complete at least 80% of her assignments. The teacher noted that Kara seemed to be alone quite a bit and asked to leave the classroom frequently to use the bathroom. On occasion, the teacher observed Kara "staring into space." When encouraged to participate in group activities, she would comply. The teacher wondered if Kara was either depressed or had some sort of medical problem to account for her behavior.

The classroom teacher indicated that a set of six school-wide behavioral goals have been established through the PBIS methodology used in this school. In addition, her class has established their own interpretation of these goals. One of the goals is to have students complete and turn in all assignments. A review of the teacher's grade book for this fifth grade class indicated that students turned in a mean of 80% of their assignments.

Skill analysis. An analysis of completed assignments verified that the papers that were turned in had very few errors. Furthermore, the fact that sometimes Kara did turn in her assignments to the designated box on the teacher's desk indicated that she knew the procedure for turning in her assignments. A review of Kara's test results in the teacher's grade book indicated that she typically understood the academic content because the grades that she received were generally a "C" or above. On class-wide Curriculum-Based Measures for reading fluency, math, writing, and spelling, Kara performed at or above the 50th percentile in comparison to her peers in the class. As such, Kara's struggles to not appear to be a Skill Deficit.

Performance analysis. Kara is a fifth grade student who has recently moved into the district. Her mother remarried last year and Kara and her mother moved into the home of the new husband and his three children. Kara is now the second youngest sibling of the four children. The youngest child attends the same school and has been struggling academically for several years.

A review of the records from Kara's previous school indicate that Kara's performance was average or above in all academic areas. Kara passed both the hearing and vision screenings. A review of the teacher's grade book showed that Kara turned in most assignments on Wednesdays and Thursdays.

An interview the Kara's mother indicated that she helps all four of her children with their homework. Each child was required to spend at least 1/2 hour sitting at the kitchen table each night completing homework or, if there was no homework, reading a book. She was concerned about her daughter due to her change in behavior since the recent divorce and marriage. Kara seemed to be more sullen and did not participate in family activities much. She was previously a very organized youngster, who took pride in having a clean and orderly room. Recently, however, she seems to have lost interest in many things. In addition, she often returned from her weekend visits with her father looking tired and unhappy. However,

when her mother questioned her about her visits with her father, Kara always indicated that they were "fine." Kara's weekend visits typically occurred 3 out of 4 weekends a month. When asked about the teacher's concern regarding Kara's health, her mother indicated that she had noticed that her eating patterns had changed recently and that she seemed to want to sleep more than she used to. However, the issue of a medical problem was one that had not been considered.

Kara stated that she was not happy with her new school and her new family. She said the work was "too hard" and that she especially did not like her younger sister because she was "dumb." Her affect during the interview seemed relatively depressed and it was difficult to engage Kara in conversation.

A classwide intervention/prevention strategy had been established by the teacher to increase the number of assignments that students turn in. The teacher stated that the entire class reviews the 6 school-wide behavioral goals daily, including the goal to turn in all assignments. She then tracks on a chart, the number of daily assignments turned in compared to the number of assignments given. The teacher reviews this chart with each student weekly. Students who fall behind in their assignments are encouraged to complete the work at home.

Three in-class observations were conducted and recorded in narrative form in order to obtain a full picture of Kara's performance. In summary, it appeared that Kara tended to enter the classroom at the beginning of each day demonstrating behavior patterns that predicted whether or not she would turn in her assignments. For example, when she entered the classroom quietly and appeared tired she would typically fail to turn in her assignments. On the other hand, when she entered the classroom, engaged in conversation with her peers and did not appear tired, she would turn in her assignments. More often than not, Kara sat alone and failed to engage in social activities and conversations with her peers. The classroom teacher confirmed that these patterns were typical for Kara. It is suggested that Kara's challenges are based primarily on a Performance Deficit, as opposed to a Skill Deficit.

### **Problem Analysis**

A meeting was convened to review the results of the data gathering efforts thus far with the classroom teacher and the student's parent. Four hypotheses were generated and a plan for testing each hypothesis was developed.

The first hypothesis was that Kara was not turning in her assignments on Mondays, Tuesdays, and Fridays because she forgot to do so as a result of her concern about spending the weekend with her father. The second hypothesis was that Kara was not turning in her assignments because she was seeking attention from her mother who has, since her new marriage, split her attention between 4 siblings. This has changed since Kara and her mother lived together and all of her mother's attention was focused on Kara. Additionally, as a result of this life change, Kara may have felt left out because she believed that she is different than her siblings and peers because she is the only one with a Mexican heritage. The third hypothesis was that Kara was not turning in her assignments because she forgot to do so as a result of being tired and perhaps physically ill. She seemed to be going to the bathroom frequently, often looked tired and sometimes seemed confused. The final hypothesis was that Kara was not turning in her assignments because she was not motivated to do so. Although the teacher keeps a chart on assignment completion, Kara may not have been checking this chart on a regular basis. Furthermore, the chart itself



may not have been motivating enough for her, and that there was a need to ensure that Kara participated in the monitoring to determine if this had an impact on her assignment completion.

The first hypothesis was tested to determine the relationship between Kara's rate of turning in assignments and whether or not she spends the weekend with her father. Kara was observed on Mondays, Tuesdays and Fridays during weeks when she spent time with her father and when she did not spend time with her father. The number of assignments that was turned in was monitored and so was her affect and social interaction. The actual difference in the rate of assignments that she turned in was not significantly different for Fridays. However, the assignments continued to remain low on the Mondays and Tuesdays after she visited with her father compared to those same days when she did not visit with her father. Kara continued to appear fatigued and have poor affect on those Mondays and Tuesdays as well. Therefore, this hypothesis was not rejected. However, the hypothesis was modified to eliminate Fridays.

The second hypothesis was tested to determine if there was a relationship between the amount of time that her mother spends with Kara and the rate of turning in assignments. Kara's mother agreed to keep track of the amount of time that she spent individually with her daughter for 2 weeks. In addition, an attempt was made to vary the times. She contacted the classroom teacher daily with her report of time spent the night before. The classroom teacher noted the number of assignments turned in on the assignment completion chart. These data over the course of the 2 weeks were analyzed and it was determined that there was no correlation between the 2 variables. Therefore, this hypothesis was rejected.

The third hypothesis was tested by determining if Kara had a medical problem that affected her rate of turning in assignments. Kara was diagnosed with diabetes by her pediatrician and began monitoring her blood sugar and controlling her diet. Her rate of turning in assignments increased somewhat. However, her affect and rate of interacting with her peers seemed to continue to vary. Mondays and Tuesdays continued to be days that Kara's affect and socialization were somewhat low. Therefore, a follow-up hypothesis was tested after confirming with Kara's father that he had not been careful about the food that she was eating during her weekend visits with him. This hypothesis was that Kara's mood and thus the rate of turning in her assignments on Monday and Tuesday were impacted by unmodified food consumption, based on requirements for treating diabetes, when she visited with her father on the weekend. Kara's father did monitor and limit her food consumption on the weekend and there was a dramatic change in Kara's affect and social interaction on the first Monday and Tuesday after he began. Therefore, this hypothesis was accepted.

The fourth hypothesis was tested to determine whether self-monitoring of her assignments would motivate Kara to turn in her assignments. Kara kept track of each assignment that she turned in for 2 weeks. The classroom teacher met with Kara each day to review her assignment completion chart and to determine the amount of agreement between Kara's recording and the teacher's recording of assignment completion. During the first three days (Monday, Tuesday and Wednesday) that the plan was implemented, the number of completed assignments increased. However, after day three the rate reverted to approximately the original rate. It could not be determined if this hypothesis should be rejected or not due to the lack of long term data. Therefore, although the hypothesis was not accepted, the teacher agreed to continue to work on this with Kara. The data would be monitored weekly to determine the impact of this self-monitoring assessment/intervention.

Although her academic skills were within the average range or higher than those of her peers, her behavior had been characterized by variable moods, a lower rate of engagement with peers and a lower rate of turning in assignments. She also had a noticeably different appearance from her siblings in the family and from her peers in the class. Her new siblings had fair skin and hair, while Kara had dark hair and dark skin. Most of her peers in the class were Caucasian or African American, while Kara was of Mexican heritage. Kara's primary language was English, but she was fluent in Spanish as well. The results from hypothesis testing suggested that her rate of turning in assignments was impacted primarily by her health conditions, interviews and observations did not indicate that her perception of her social status had an impact on her behavior.

### **Intervention**

Data obtained from hypothesis testing indicated that Kara's rate of turning in assignments increased when her food consumption and sugar level were monitored and controlled at home and at her father's house. Therefore, the intervention included 3 monitoring charts for (1) sugar level, (2) food consumption, and (3) turning in assignments. The goals for this complex intervention were to assist Kara to monitor her sugar levels; to reduce the amount of "junk food" that she eats, especially when she spends the weekend with her father, and to increase her rate of turning in assignments.

The school psychologist, teacher, student's parent, and student discussed and formulated the intervention plan. Kara's goal was to turn in 80% of her assignments per week. This was anticipated to initially occur rapidly due to the fact that the hypothesis was medically based. Since the problem is medically based, it will be important to ensure that Kara continues to track her food and sugar level throughout her life. Although the hypothesis regarding motivation was not accepted previously, it was anticipated that motivation to continually monitor blood sugar levels and food consumption will vary over time. So the intervention is expected to remain in place with the addition of an incentive system, until fading is used to reduce Kara's need for the intervention and she demonstrates that she is self-sufficient in controlling her food intake and sugar level.

The school psychologist provided training for the classroom teacher and Kara's parents for implementing the self-monitoring methods (Shapiro, Durnan, Post and Skibiskey Levinson, 2002). Self-monitoring has been demonstrated to promote independence (Connell et al., 1993; Trammel, Schloss, and Alper, 1994) which is the long term goal of the intervention. The methods were tailored to the situation and to the needs of the family and the classroom teacher. A check for treatment integrity was built into the checklists. Failure to complete the checklist indicated lack of integrity to the intervention.

The charts for maintaining sugar level and food consumption were completed by Kara and checked by her parents on a daily basis. The work completion chart was completed by Kara at the end of each day, and was verified by the classroom teacher. See the charts below. Each Friday, the results of the week were shared between home and school via email. The teacher and Kara reviewed her charts for each day of the week on Friday, and sent an email message back to both parents regarding the similarities across the 3 charts. The incentive was then selected by Kara and the team from the established list and implemented as appropriate.

This intervention was considered by the teacher and Kara's mother to require a higher level of intensity, since the completion and review of the charts, as well as the development and implementation of incentives required daily attention by Kara, her parents and the classroom teacher. However, the team agreed that this level of intervention delivery and the response to the intervention did not require special education services.

Although Kara was not pleased about needing to monitor her sugar level and food consumption, she agreed that it was necessary. Kara's family and classroom teacher also agreed that the intervention was likely to be the least intrusive and most effective plan to deal with her health and rate of turning in assignments.

Assignments Checklist

	Monday	Tuesday	Wednesday	Thursday	Friday
How many assignments did I turn in today?					
How many assignments did my teacher have listed on the board today?					
Did I reach my goal? (80%)	Yes No	Yes No	Yes No	Yes No	Yes No
My teacher agreed with my ratings today.					

Sugar Level Checklist

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
Each time I check my sugar level and it was okay I make a mark here.							
Each time I check my sugar level and it was not okay I make a mark here.							
My sugar level was good all day today (Rating 3).							
My sugar level was good most of the day today (Rating 2).							
My sugar level was not good most of the day today (Rating 1).							
My parent agreed with my ratings today.							

Food Checklist

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
Each time I eat something that is on my "Okay List" I make a mark here.							
Each time I eat something that is not on my "Okay List" I make a mark here.							
I ate only foods that were on my "Okay List" today (Rating 3).							
I ate a little food that was not on my "Okay List" today (Rating 2).							
I ate a lot of food that was not on my "Okay List" today (Rating 1).							
My parent agreed with my ratings today.							

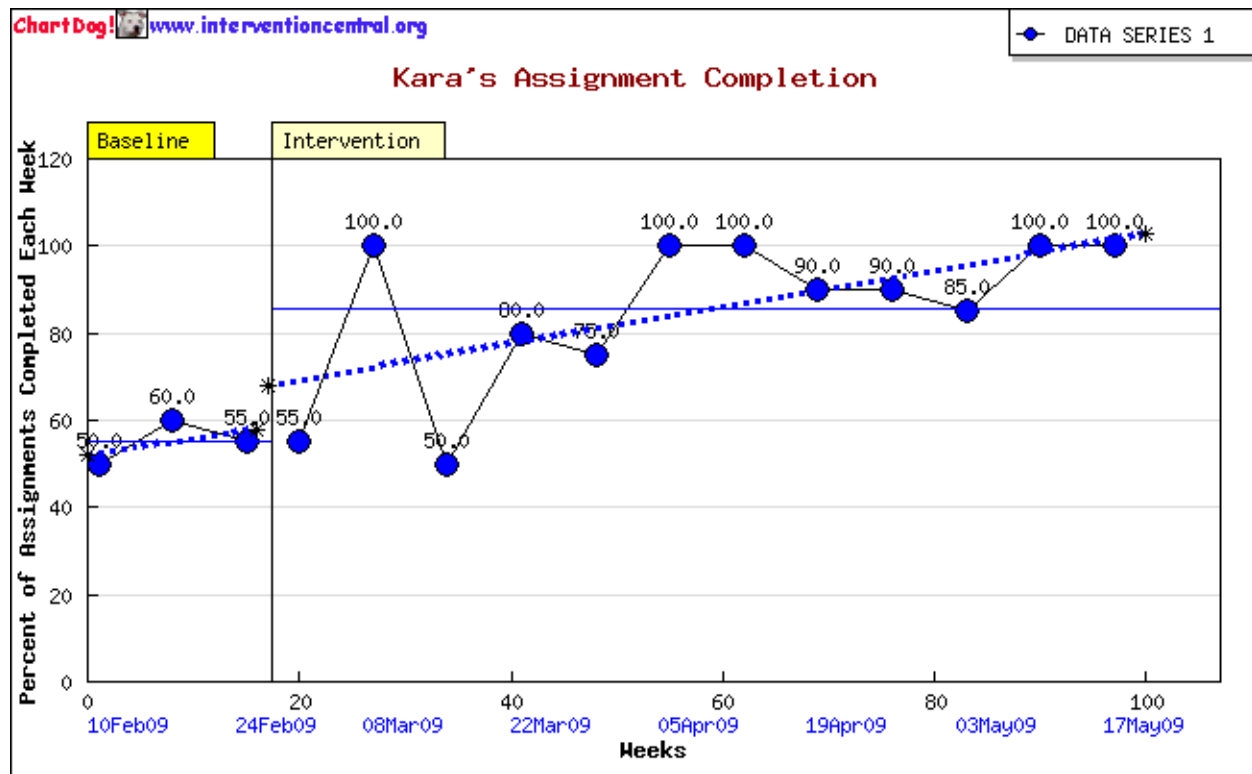
### Rating Comparison Checklist

Week	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
Did I reach my goal for turning in assignments?							
Sugar Rating (1, 2, 3)							
Food Rating (1,2,3)							

### Evaluation

The success of the intervention was evaluated based on an AB single-case design, with A representing the baseline and B representing the implementation of the described intervention. The percent of assignment completion is represented in the following chart. A three week baseline was utilized, followed by ten weeks of intervention.

Percent of Turning in Assignments Comparing Baseline to Intervention Phase and Goal



Kara's mean rate of turning in assignments during baseline phase was 55%. Her rate increased to an average of 85% during the 10 week intervention phase, surpassing the goal set forth by the team. Additionally, given the relatively consistent baseline, the team utilized the Percentage of Non-Overlapping Data Points (PND) to estimate the magnitude of the intervention effectiveness. The PND was 83%, confirming that most of the intervention phase data were higher than the baseline data. This 83% value is considered to be a moderate to large effect.

The classroom teacher reported that Kara's general affect and socialization seemed to improve after the intervention was implemented. Kara reported that she felt much better when her sugar was under control, as a result of the change in her diet. However, she also indicated that it would probably be difficult to continue to do this for the rest of her life. Treatment integrity for the intervention ranged from 90% to 100% during the entire intervention phase.

Kara's parents, teacher, the school psychologist and other intervention team members met at the conclusion of the 10 week intervention period and agreed that the intervention was a success. However, all expressed concern that Kara would need to learn to self manage her diabetes with the ongoing support of her family and her teachers. A strong cautionary note was expressed by the team. The members felt that the monitoring intervention should not be considered an option, but instead is necessary for Kara to keep her good health. Generalization to all times and settings continued to be a concern.

It is recommended that periodic meetings between Kara's family and the classroom teacher be conducted each year to ensure that Kara's health and academic progress are well managed.

Note: Case report adapted from a sample provided by NASP.

Appendix C

Reading Prosody Intervention Script: “Stop/Go”

**Objective:** For students who read through periods and have poor phrasing to improve prosody. This can also be used to get students to pause at commas later one (same procedure, shorter pause).

**Materials:** Short texts at the student’s instructional level (can read with at least 95% accuracy)

Script Sequence:

1. Give the student the reading passage. Explain they will read aloud one sentence at a time fluently. (Not fast, but like having a conversation or like reading a bedtime story to someone).
2. **First Reading** – At the end of each sentence, teacher says “Stop.” Wait 2-5 seconds (this feels like a long time!), depending upon the difficulty of the next sentence. Teacher says “Go.”
3. Student continues reading aloud, one sentence at a time, with teacher direction, “Stop. Go.”
4. Student should read the entire passage this way.
5. **Second Reading** – Student should read the passage again, this time without teacher cues. Teacher says, “At the end of each sentence, stop and take a breath.”
6. **Third Reading** – Student reads naturally, briefly pausing at the end of each sentence.

Reading Prosody Intervention Integrity Checklist: “Stop/Go”

INTERVENTION SEQUENCE	YES	NO
Teacher provides copy of text to student, has a copy of his/her own		
Teacher explains that student will read one sentence at a time		
<b>Reading 1:</b> Student begins reading. Teacher says “stop” as the student completes each sentence		
Teacher waits 2-5 seconds in between each sentence (longer pause when next sentence is more complex) and the says “go”		
Procedure is repeated the same way for each sentence in the passage		
<b>Reading 2:</b> Teacher tells student “Read the passage again. At the end of each sentence, stop and take a breath.”		
<b>Reading 3:</b> Teacher tells student to read the passage naturally with a brief pause at the end of each sentence.		

Total Percent: \_\_\_\_\_

**Note:** Adapted from an intervention script and integrity checklist provided by Holly Windram of the SCRED district (WSPA, 2009).

## Appendix D

### Generic Intervention Integrity Rating Form

Use the following scale to help determine the integrity of the implementation of your intervention. Consider the questions with the entire timeframe of the intervention in mind:

- |  |
|--|
| 1 = Never or rarely<br>2 = Sometimes or inconsistently<br>3 = Often or most of the time<br>4 = Always or almost always |
|--|

The intervention was used as designed/developed	1	2	3	4
The agreed upon intervention materials were used	1	2	3	4
The agreed upon consequences were contingently delivered (e.g., reinforcers, feedback, rewards, etc.)	1	2	3	4
The agreed upon charting of intervention progress was completed (e.g., tally marks, self-monitoring, etc.)	1	2	3	4
<b>TOTAL</b>				

### Intervention Integrity Evaluation Guide:

The following is intended to be a guide only for the total score. Please review scores for each item carefully and use professional judgment at all times.

- |  |
|--|
| <b>14-16</b> = Strong Intervention Integrity; Intervention Often or Always implemented properly<br><b>12-13</b> = Average or adequate Intervention Integrity; Intervention may have been implemented properly at times but not ideal; Intervention results may be questionable<br>< <b>12</b> = Poor Intervention Integrity; Intervention results cannot be evaluated properly |
|--|