

ADDRESSING CHALLENGING BEHAVIORS ETHICALLY IN SCHOOLS

MODULE 5: Addressing Challenging Behaviors Ethically in Schools by Maintaining Treatment Integrity and Thorough Data Analysis



SL Global
www.SLGlobalSolutions.com



Housekeeping

1. Post your questions in the Questions Box. If we have time, one of our moderators will select a few to present to our panelists.
2. If you experience technical issues during the webinar, contact GotoWebinar directly by calling (877) 582-7011.
3. There will be a 5-minute break near the halfway point.
4. The recording of this webinar will be available in your account approximately 7 to 10 days after the LIVE broadcast
5. This webinar is eligible for the following CEU credits.
 - 2 Learning (Type-II) BACB CEUs
 - 2 LIVE (General) QABA CEUs
6. Please complete the survey after the webinar to receive a Certificate of Completion.
7. If you have any post webinar questions or comments, please send an email to kchung@special-learning.com.



Disclosures

To provide transparency and maintain within CE activity guidelines (BACB®, QABA®, APA® etc.) the following disclosures are included:

Relevant and Non-Relevant Disclosures

This webinar was funded in its entirety by Special Learning Global and its affiliated businesses. SL Global, located in Menlo Park, CA is a technology company that develops content and solutions to support Behavior Analysts, Speech Therapists, Occupational Therapists, Educators and other professional who provide education and intervention to individuals with Autism and other special needs.

This self-study online course was developed in conjunction with Karen Chung, Dr. Ronnie Detrich, and Jennifer Rumfola, BCBA. Funding to develop and deliver this course was provided by Special Learning Global Solutions.

Dr. Ronnie Detrich: I have the **following relevant relationships** in the products or services described, reviewed, evaluated or compared in this presentation.

- *Financial relationship(s)*:
 - Special Learning Inc.- receive speaker fee and royalties for this webinar in recording format
- *Nonfinancial relationship(s)*:
 - Special Learning Inc.- ongoing relationship for main speaker of Addressing Challenging Behaviors Ethically in Schools Series

Jenifer Rumfola: I have the **following relevant relationships** in the products or services described, reviewed, evaluated or compared in this presentation.

- *Financial relationship(s)*:
 - Special Learning Inc.- receive honorarium fee for speaking and CE credits
- *Nonfinancial relationship(s)*:
 - Special Learning Inc.- Facilitator, panelist and CE Coordinator



Learning Objectives & Outcomes

- Participants will be able to describe the dimensions of treatment integrity.
- Participants will be able to follow a practical decision model for assessing the dimensions of treatment integrity.
- Participants will be able to apply a pragmatic decision model for when to improve treatment integrity and when to change an intervention.
- Participants will learn to describe the various dimensions of behavior.
- Participants will learn to make pragmatic decisions about which dimension of behavior to measure in given situations
- Participants will learn considerations of measures that are necessary so that the measure is sensitive to change and meaningful.



Subject Matter Expert



Ronnie Detrich, Ph.D., has been providing behavior analytic services for over 50 years. His work can be characterized as thorough-going behavior analysis drawing from the conceptual, experimental, and applied branches of our discipline.

From 1970-1977, he worked at a pioneering Family Service Agency in Flint, Michigan, providing behavior analytic services for anyone requesting help. Later, he developed and was the director of a state-wide educational and residential program for school-aged children with autism in South Dakota. In the 1980s, Ronnie was the director of a residential program based on the Teaching Family Model for adjudicated juvenile offenders in West Virginia. From 1986-2004, he was the clinical director for a large non-public school in the San Francisco Bay Area serving children with intellectual disabilities and serious behavior challenges. In addition, he also co-directed a public-school consultation project supporting students with academic and behavioral challenges. From 2004-2018, Ronnie was a Senior Fellow at the Wing Institute, an education policy think tank that focuses on the implementation of evidence-based practices in public schools. Currently, he is the proprietor of Detrich and Associates, a consulting project based in Logan, Utah. He also holds an appointment as adjunct faculty at Utah State University.

In recent years, Ronnie's work has focused on the challenges of achieving adequate levels of treatment integrity in large systems, the role of the evidence-based practice movement in behavior analysis, and the large-scale implementation of effective practices in public schools. He is a trustee of the Cambridge Center for Behavioral Studies and is on the editorial boards of *Perspectives in Behavior Science* and *Exceptional Children*. He serves as an Associate Editor for the *Journal of Positive Behavior Intervention*. Ronnie has also served on the editorial board of *Behavior Analysis in Practice* and was the Coordinator of ABAI's Practice Board.



Panelist



Jennifer Rumfola, MA, CCC/SLP, BCBA/LBA is a dually credentialed professional, licensed and certified as a Speech Language Pathologist and Behavior Analyst (BCBA). She possesses expertise and advanced skills in teaching language to children on the autism spectrum. She has helped clients across the life span from Early Intervention, Preschool through School in both home, center-based, and public-school settings. Over the past 10 years, she has successfully integrated strategies and techniques from both disciplines to help individuals with autism and their educational teams generate better student outcomes.

Jennifer conducts training for a variety of audiences including educators, related service providers, administrators, parents, para-professionals and undergraduate/ graduate students across disciplines. She serves as an adjunct faculty member in the Master's ABA program at Daemen College in Buffalo, NY, and was formerly a part time graduate clinical supervisor and adjunct faculty at the University of New York at Buffalo in the Communication Disorders and Sciences Department .



Final Module of Series

- **Module 1: How to Maximize the Value and Facilitate Collaboration Across Service Providers**
- **Module 2: Must-have Skills (and Understanding) for School-based BCBA's and Other Service Providers**
- **Module 3: Assessing Problem Behaviors in Schools and Developing a BIP Implementation Team**
- **Module 4: Using ABA Programming in Schools in a Collaborative Model to Begin to Manage Problem Behaviors**



Definition of Treatment Integrity

Intervention implemented as planned

(Gresham, Gansle, Noell, Cohen, & Rosenblum, 1993; Moncher & Prinz, 1991; Yeaton & Sechrest, 1981).





Treatment Integrity

Treatment integrity=Implementation

Implementation is where good ideas go to die

Students do not benefit from interventions they do not experience
(Dean Fixsen)



Logic Chain

- Data-based decision making at the heart of behavioral intervention.
 - Student progress data tells us about the effects of the intervention
- The *effectiveness* of interventions is a *function of the integrity* with which they are implemented.
- The *quality of decisions* about effects of an intervention is directly linked to the *quality of implementation*.

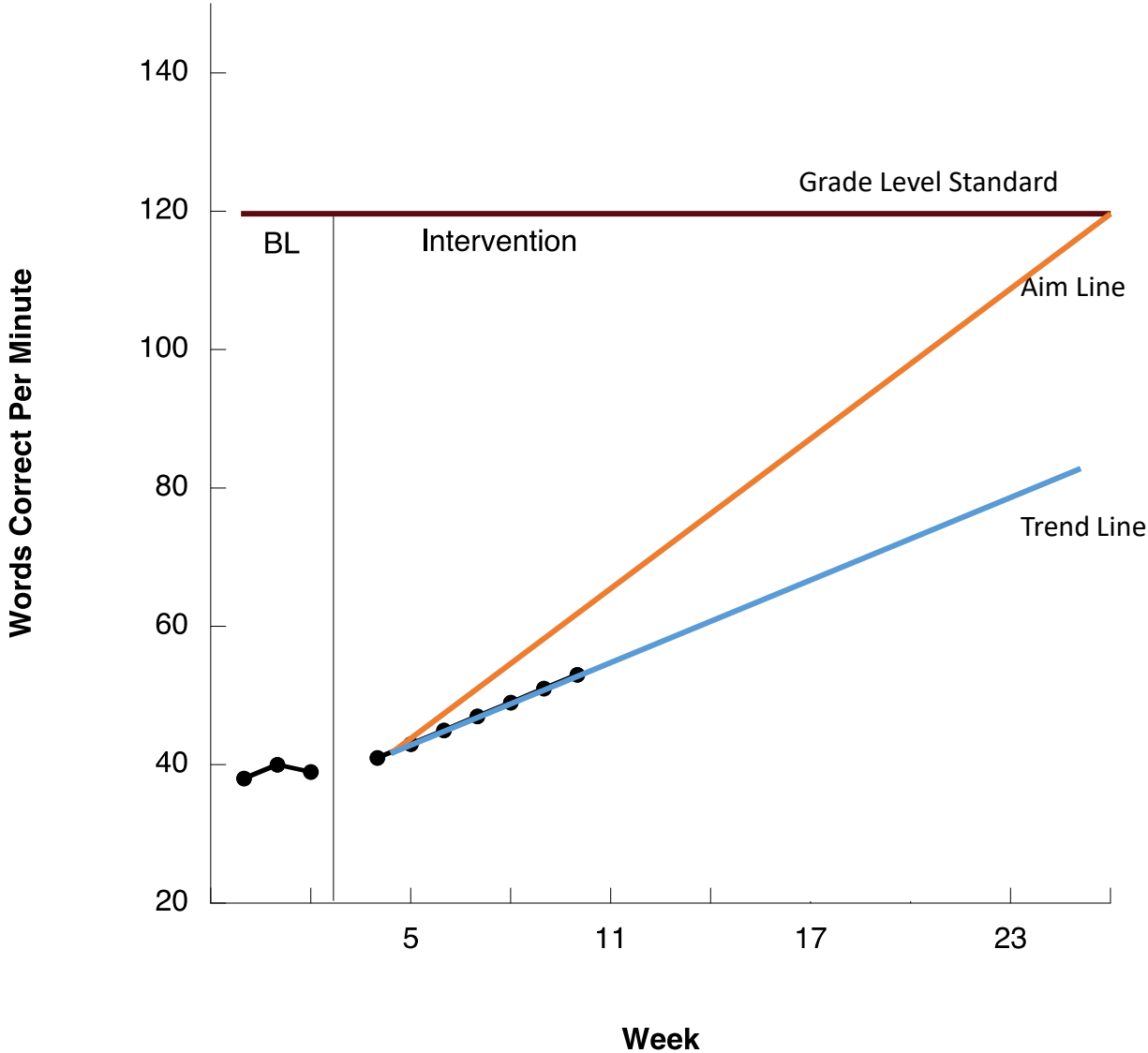


Adequacy of Treatment Integrity

If we know about adequacy of treatment integrity then we can make decisions:

- Adequacy of intervention
 - If intervention is inadequate then adjust or change the intervention
 - If intervention is adequate then continue the intervention.
- Adequacy of implementation
 - If implementation is inadequate then focus should be on improving implementation.
 - If implementation is adequate then focus should be on changing intervention so student can succeed.

Data- Based Decision Making & Treatment Integrity





The Challenge of Treatment Integrity in Practice Settings

- Interventions always have costs:
 - Resources
 - Time
 - Money
- Monitoring treatment integrity has costs.
 - Resources
 - Time
 - Money
- Resources are not likely to be added so reallocating existing resources is necessary.



The Challenge of Treatment Integrity in Practice Settings

- Do we take resources from intervention to support monitoring treatment integrity?
- Failing to assure high quality implementation likely results in a waste of resources because effects of intervention are minimized.

**Services with no outcomes =
activity without accomplishment**



Using Resources Wisely

- Use a multi-tiered system of support for implementers.
 - Not all implementers require same level of support to implement with integrity.
 - Provide only the support necessary to achieve effective implementation.



What Do We Know About Treatment Integrity & Student Behavior?

- Different levels of integrity result in different levels of student behavior.

(Wilder, Atwell, & Wine, 2006)

- High integrity followed by declines in integrity has limited disruptive effect on student behavior.

(Northrup, Fisher, Kahng, Harrel, & Kurtz, 1997)

- Low levels of integrity followed by increases in integrity do not produce the same level of student response as when integrity high from the beginning.

(Groskreutz,, Groskreutz, & Higbee, 2011)

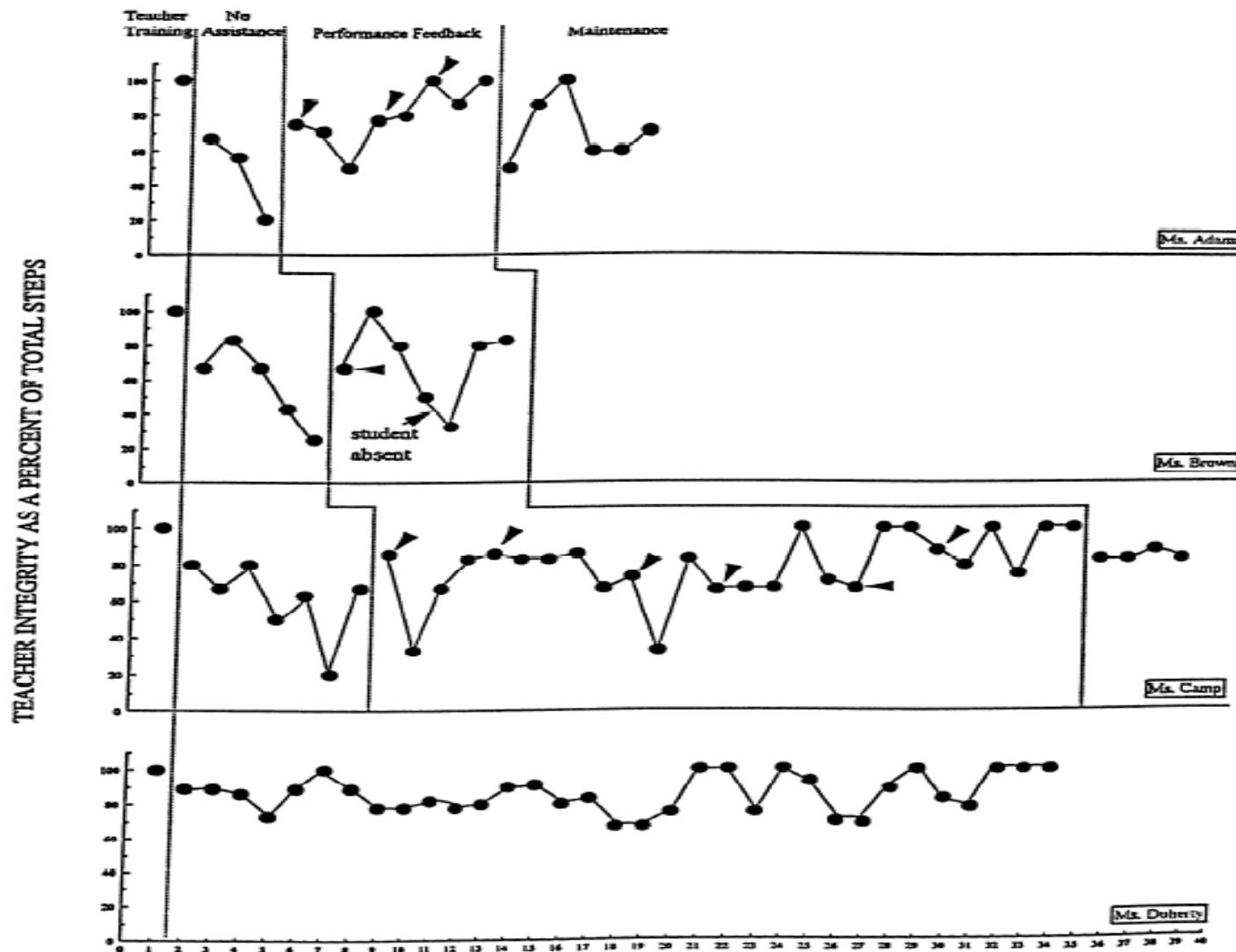


So What Does This Tell Us?

Make sure that integrity is high at the beginning of intervention.

- It is better to start with high levels of integrity and let it decline than to start with low integrity and try to increase it.
- Maximizes impact of intervention.

Figure 1. Teacher treatment integrity recorded as percent of total steps completed daily with arrows indicating performance feedback meetings.



Teacher treatment integrity

Highly variable within and across staff.

Likely to decline quickly without active intervention.





Treatment Integrity in Practice

- Survey of school psychologists (Cochrane & Laux, 2008)
 - 97% agreed that it was key factor to consider.
 - 11% reported monitoring with individual cases.
 - 1.9% reported monitoring for group/team consultation.



Quality of Implementation

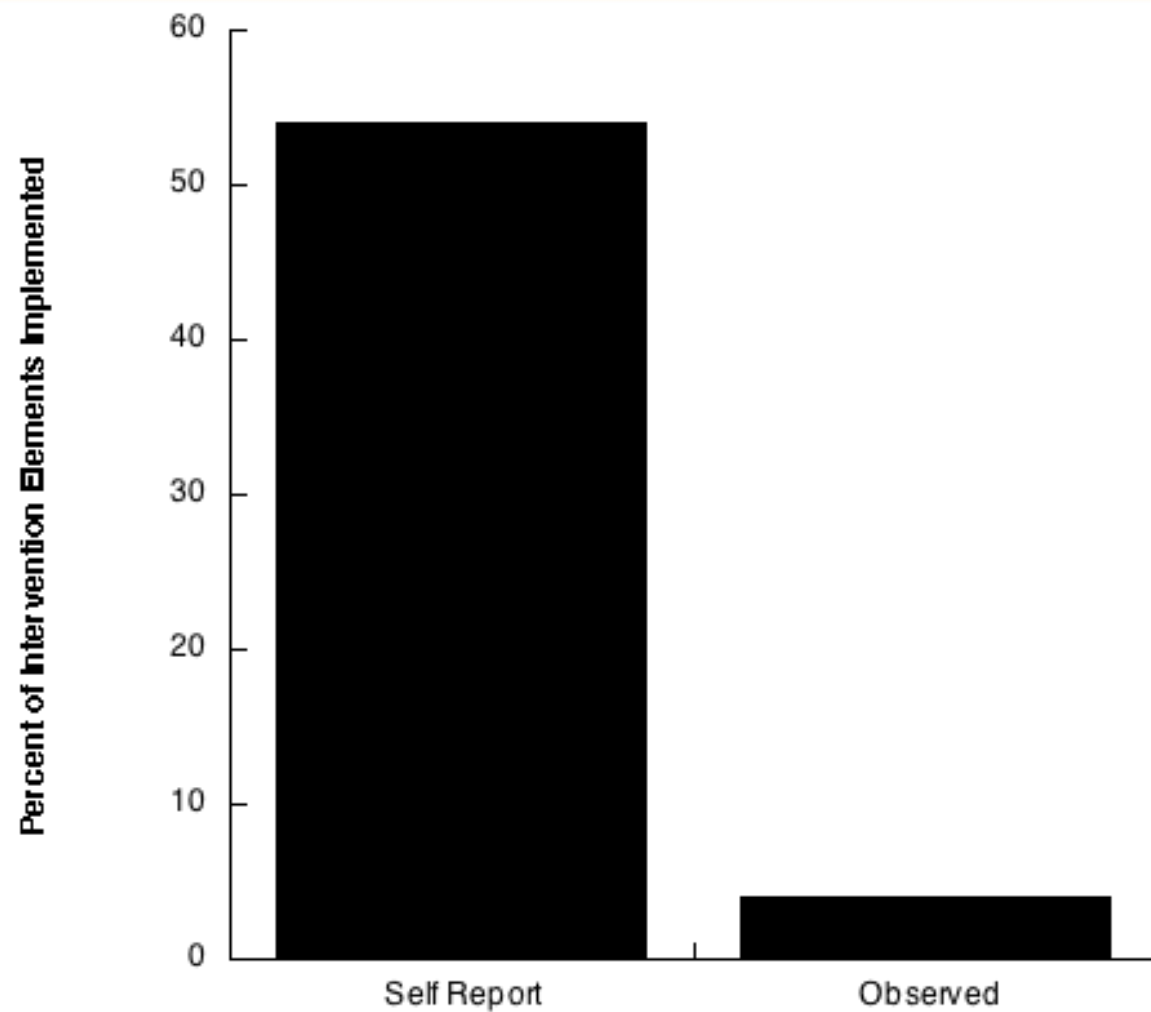


Fig. 1 Quality of Implementation as Measured by Self Report and Direct Observation
From Wickstrom, Jones, LaFleur, and Witt, 1998



Dimensions of Treatment Integrity





Dimensions of Treatment Integrity

- Exposure (Dosage): the extent to which participants are exposed to the intervention as prescribed.
 - Curricula usually prescribe frequency and duration of exposure that is necessary for benefit.
 - Ex: 3/week for 30 minutes/session.
 - Failing to satisfy either can impact student benefit.
 - Ex: 1/week for 30 minutes or 3 times/week for 10 minutes each time.



Dimensions of Treatment Integrity



Adherence: the extent to which the components of an intervention are delivered as prescribed.

- Most measured dimension.
- It is necessary but not sufficient to produce benefits.
 - Adherence with low dosage not likely to produce positive outcomes.



Dimensions of Treatment Integrity

- Quality of delivery: qualitative measure of how well the intervention is implemented.
 - Importance has been acknowledged for years.
 - Have not developed good measures or how to influence it.
 - Possible measures through social validity methods:
 - Enthusiasm
 - Sincerity
 - Variations in inflection and content of speech.



Dimensions of Treatment Integrity

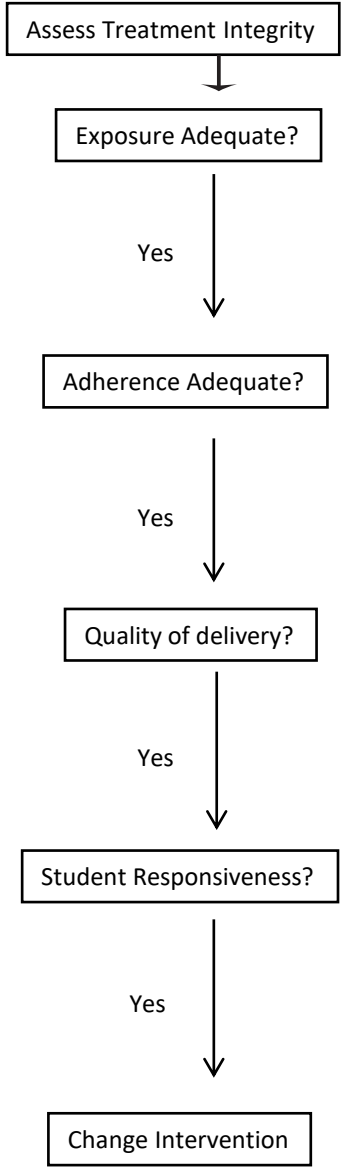
- Responsiveness of Participants: a measure of participants response to sessions. Includes indicators such as levels of participation and enthusiasm.
 - It is possible to have very high exposure and adherence and have very low participation.
 - Improper placement in curriculum.
 - Boring from student's perspective.
 - Not socially valid intervention.



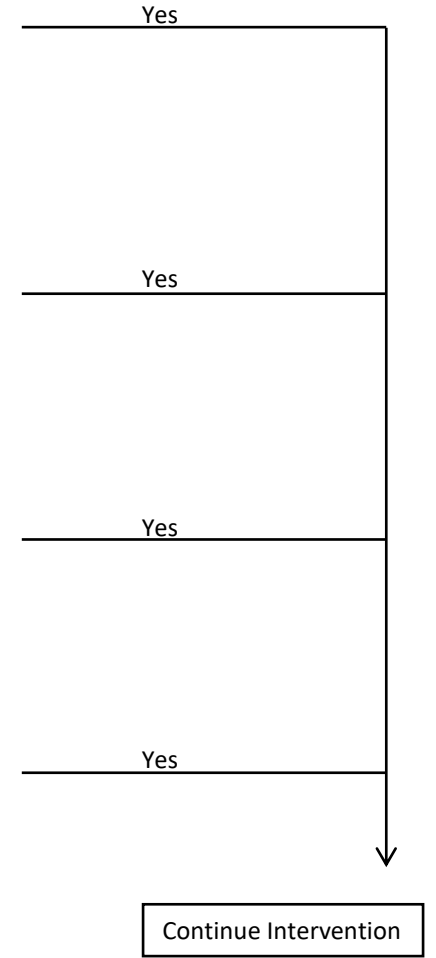
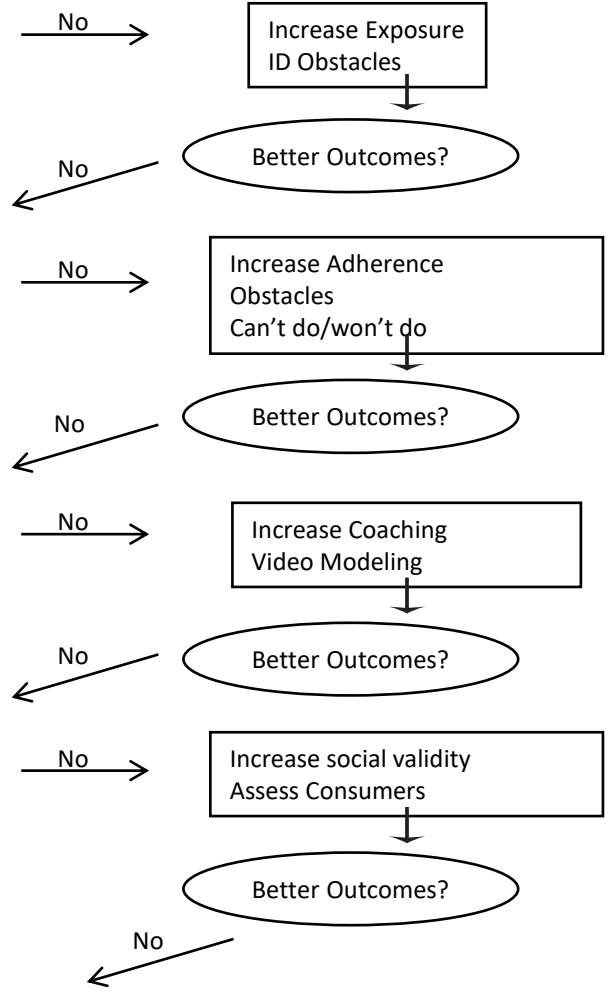
Assessment with Resource Constraints

- Difficult to assess all dimensions of integrity at same time.
- Some require fewer resources to assess than others.
 - Exposure easier than adherence.
- Sequential assessment of dimensions allows intervention only where necessary.

Downloadable



Poor Outcomes?





Increasing Treatment Integrity



Not All Training is Equal

OUTCOMES

(% of Participants who demonstrate knowledge, demonstrate new skills in a training setting, and use new skills in the classroom)

TRAINING COMPONENTS	Knowledge	Skill Demonstration	Use in the Classroom
Theory and Discussion	10%	5%	0%
... + Demonstration in Training	30%	5%	0%
... + Practice & Feedback in Training	60%	5%	5%
... + Coaching in Classroom	95%	95%	95%

Joyce & Showers, 2002



Performance Feedback

- Feedback is most common approach.
- Feedback can be given in a variety of ways.
 - Face to face (tell)
 - Email (tell)
 - Graphed (show)
 - Tell + show feedback more effective than either alone.



Effective Performance Feedback

- More frequent the feedback the better the effects (Jones, Wickstrom, & Friman, 1997; Mortensen & Witt, 1998).
- Daily better than weekly.
- Immediate better than delayed.
- Immediate more preferred than delayed.





Self Monitoring

- Most often used to monitor adherence.
 - Discrete events (specific praise, opportunities to respond).
- Accuracy may be improved by:
 - Rating immediately following instructional period.
 - Rating over shorter periods of time.
 - Reviewing video recordings.



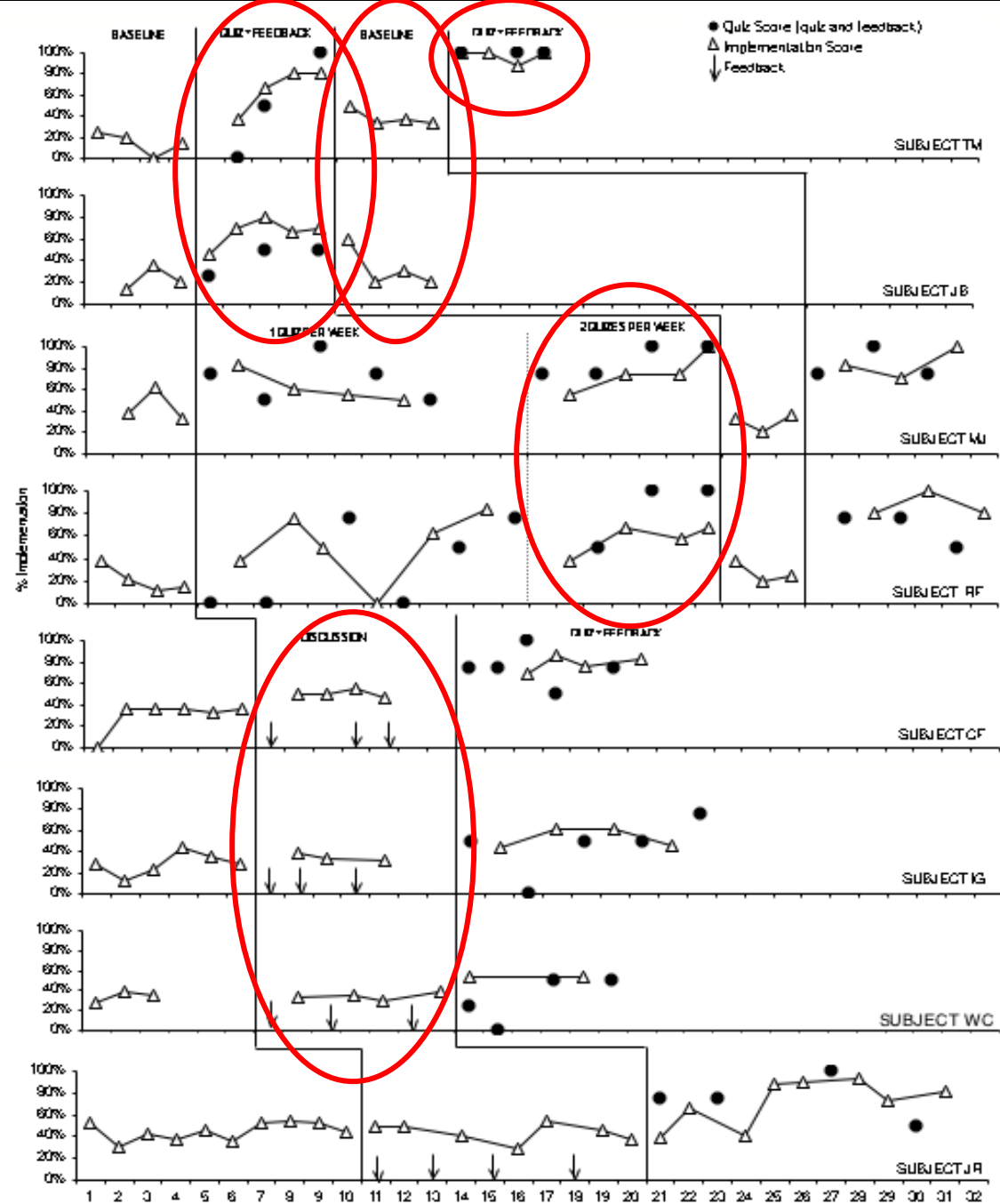
Allowing Implementers to Choose Intervention Elements

- Often interventions are developed in top down approach.
- Not all implementers equally able to implement all elements of an intervention.
- Allowing choice from empirically-supported elements increased treatment integrity.



Quizzes

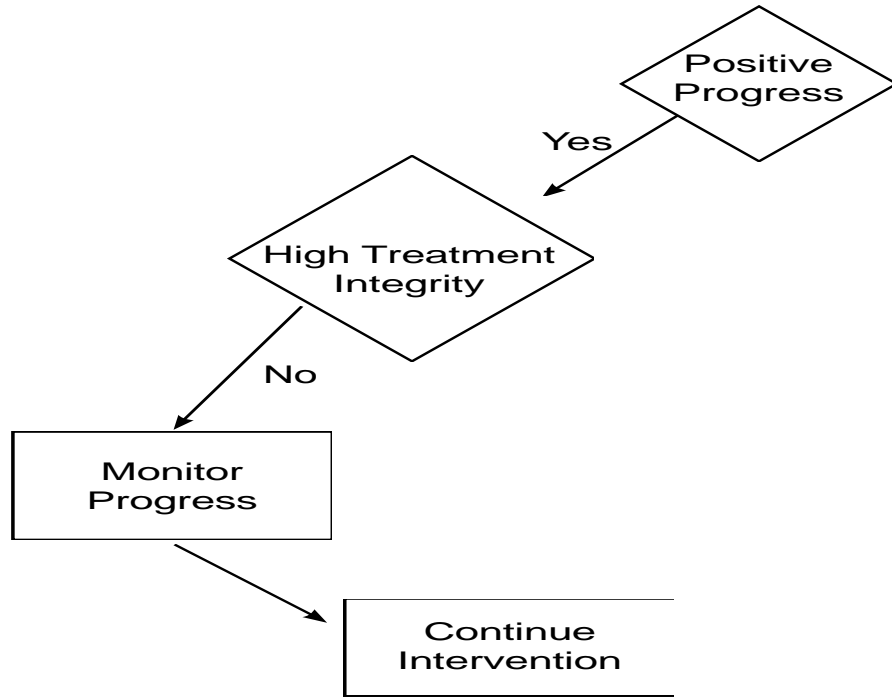
- Quizzes (Detrich et al., unpublished)
 - Staff quizzed weekly on elements of multi-component individualized behavior support plans.
 - Given feedback on quiz but no feedback on actual implementation of support plan.
 - 4 versions of the quiz. One question per element of the plan (student preferences, antecedent interventions, teaching replacement behavior, responding to misbehavior).



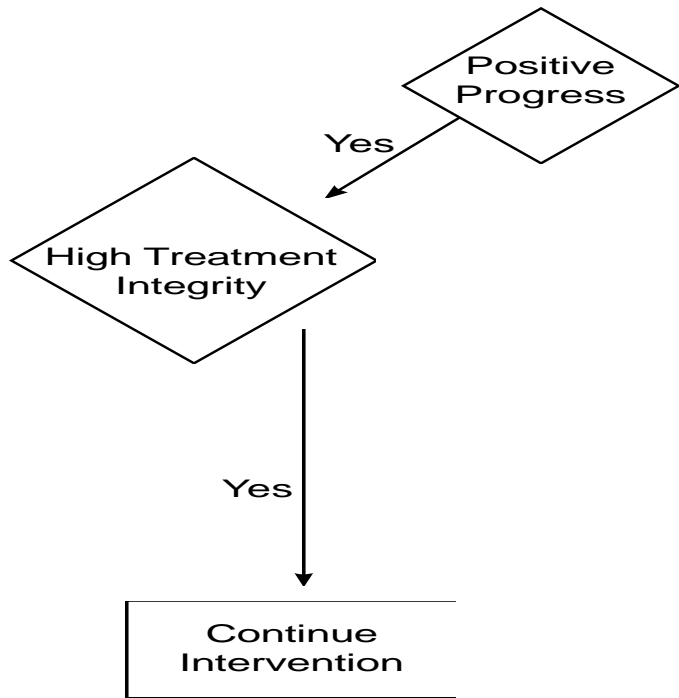


Treatment Integrity: Putting it All Together

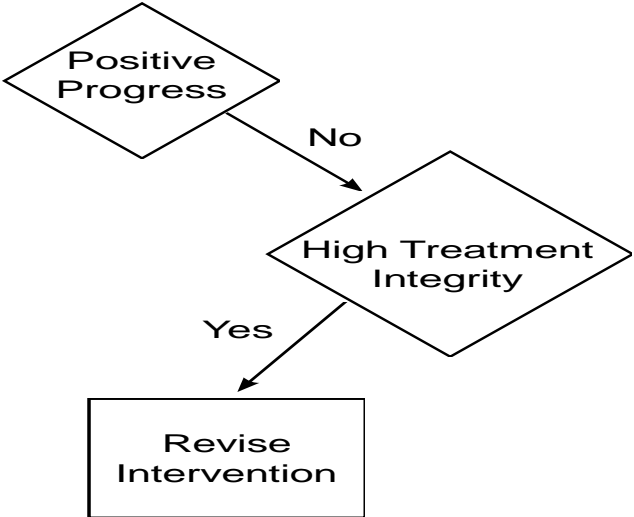
Student Intervention



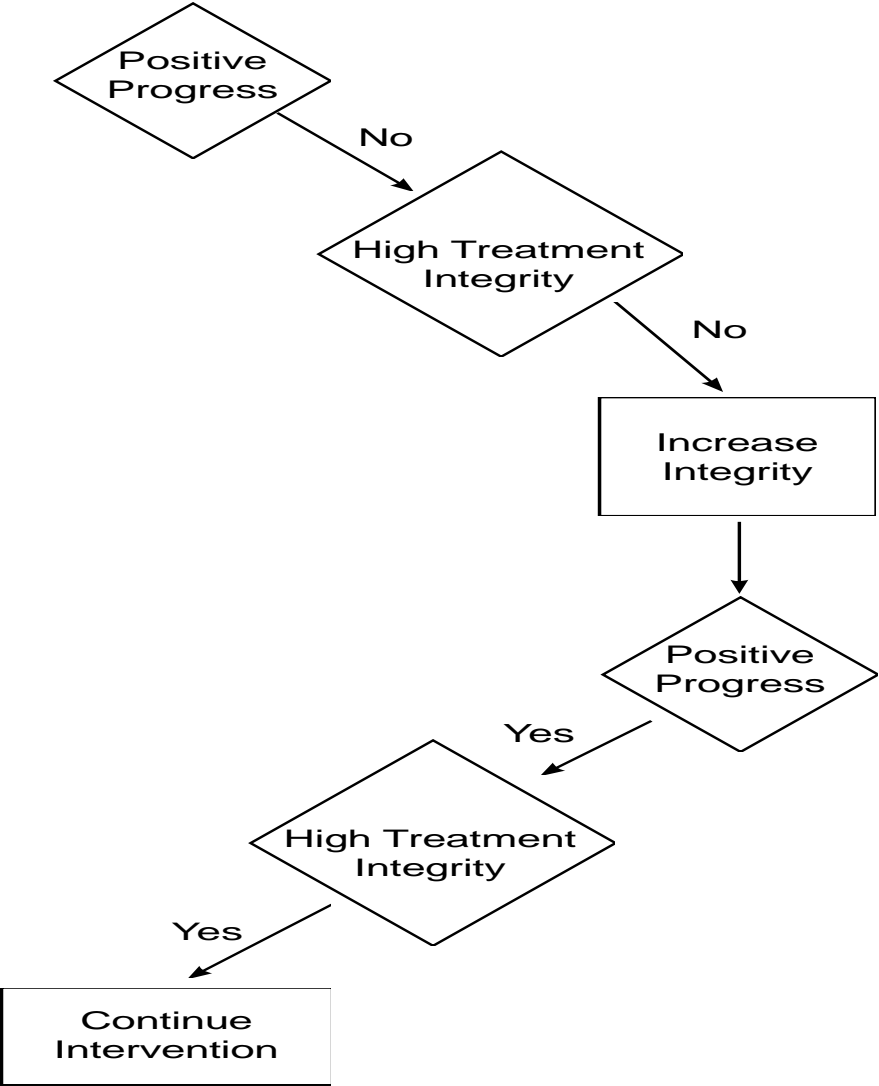
Student Intervention



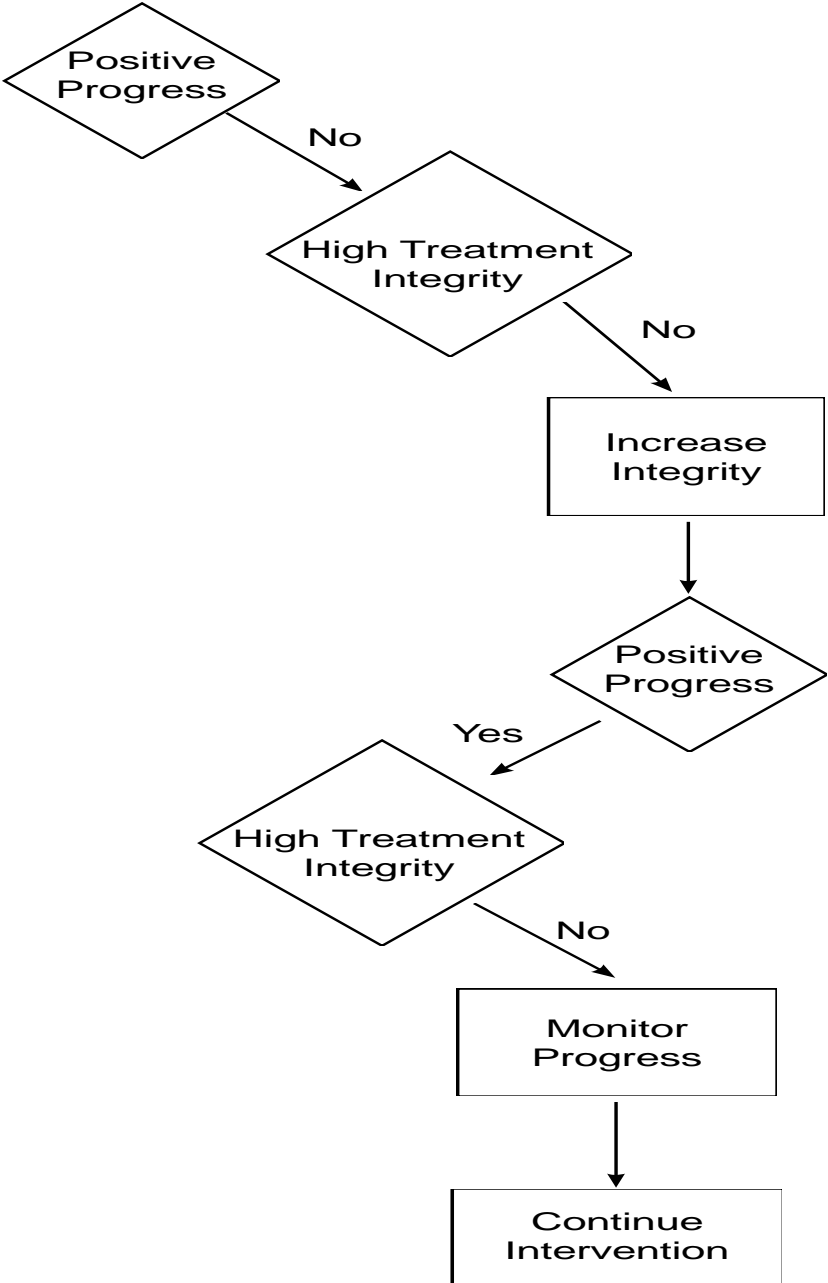
Student Intervention



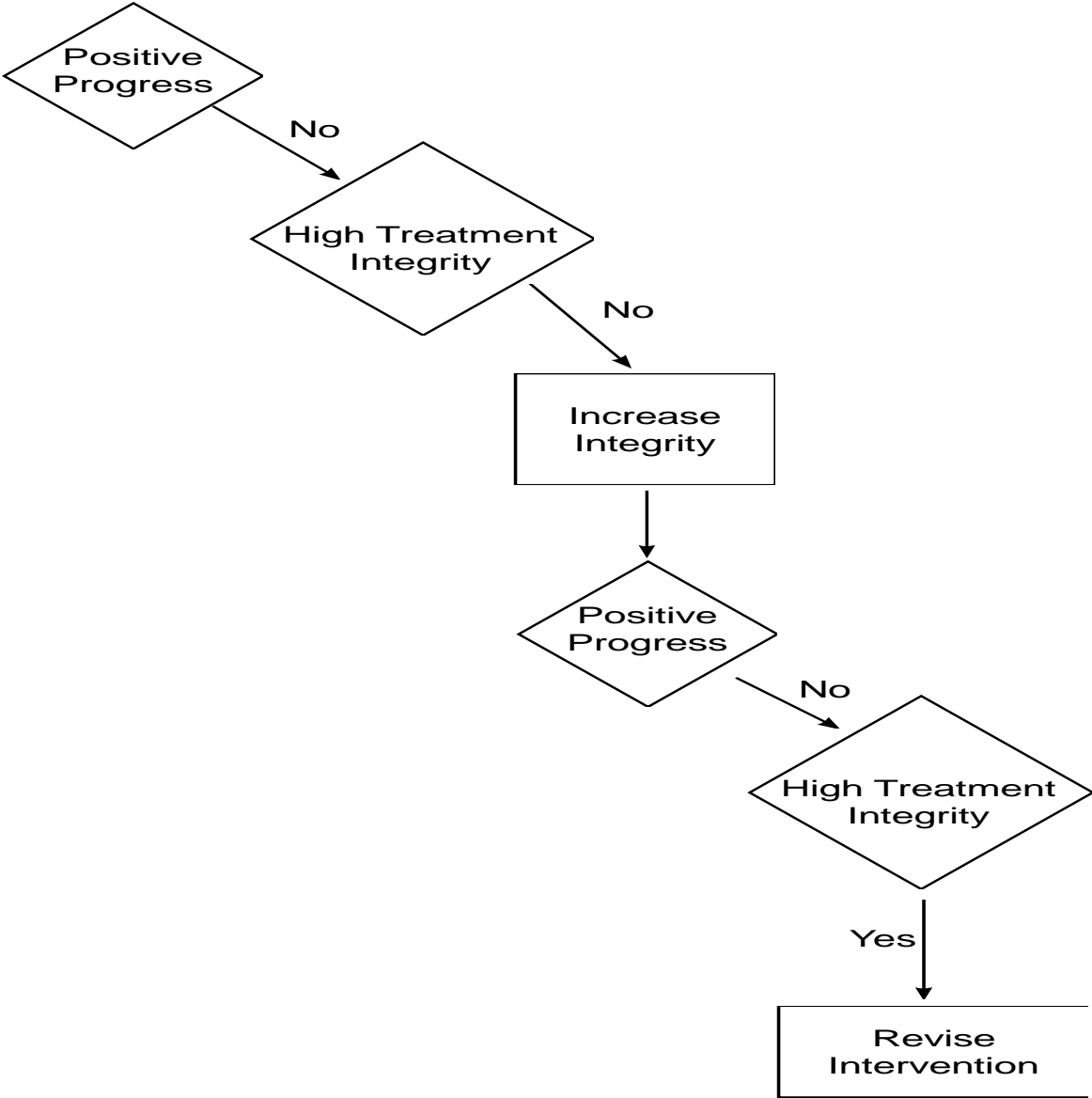
Student Intervention



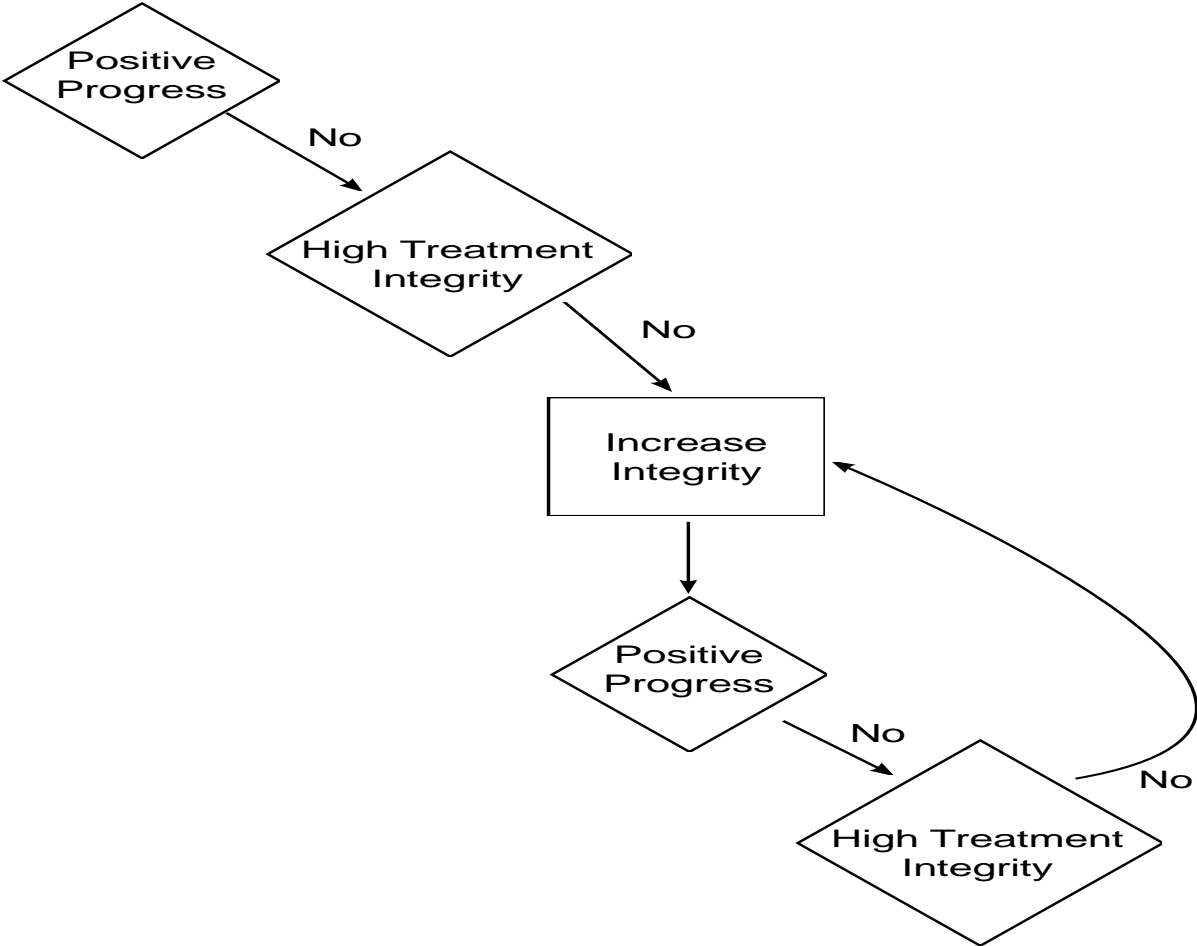
Student Intervention



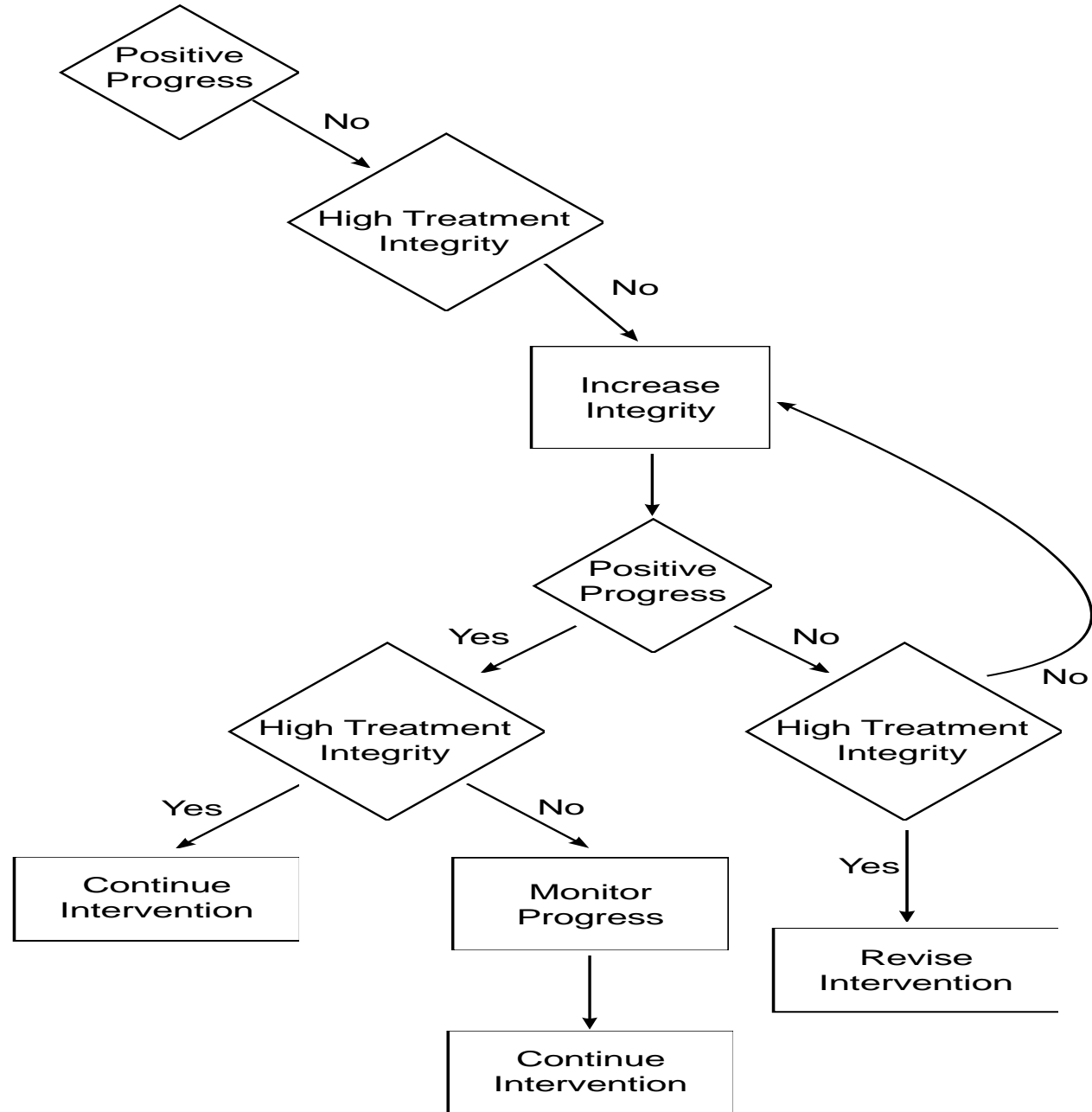
Student Intervention



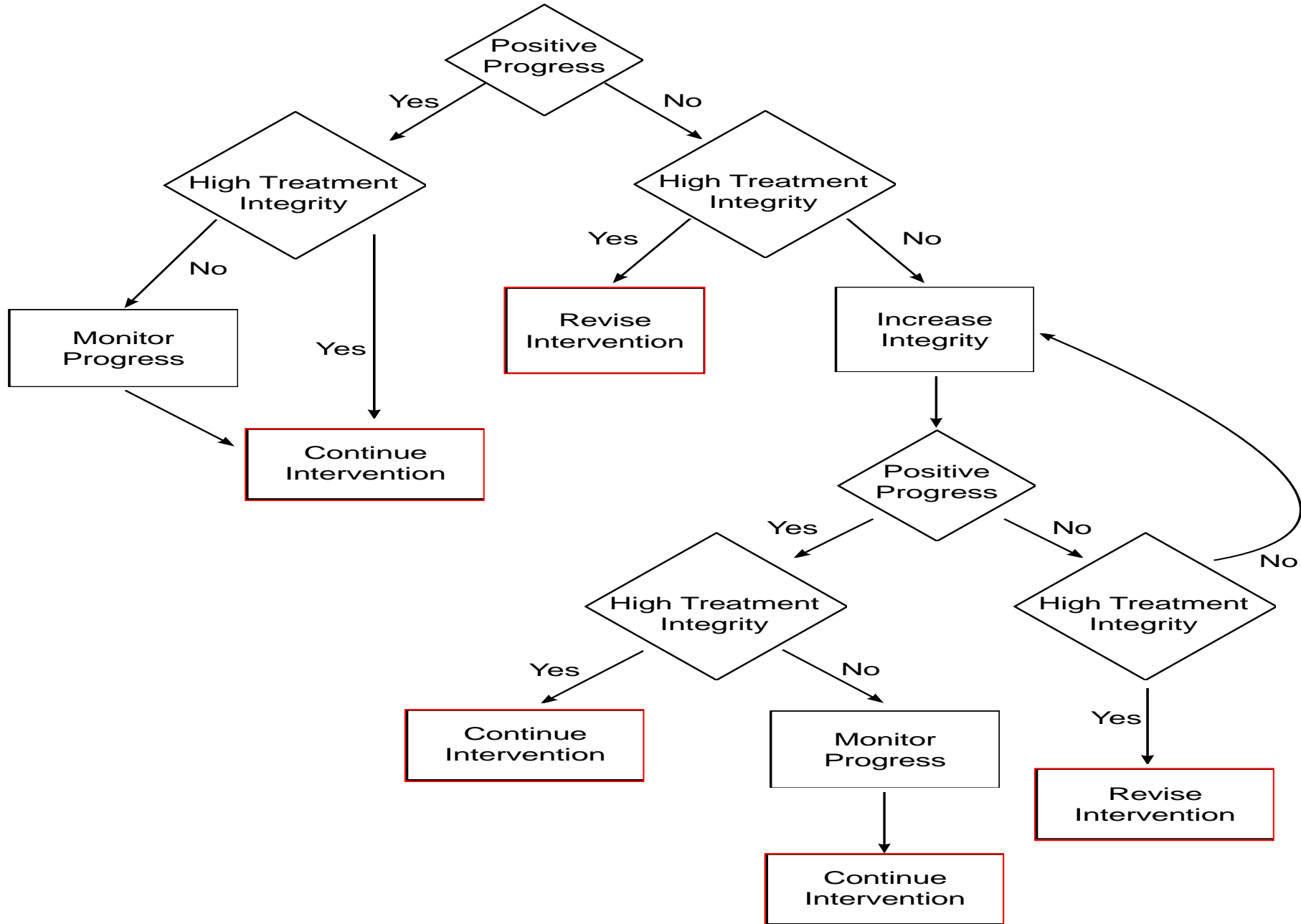
Student Intervention



Student Intervention



Student Intervention





Data Collection & Analysis



- Slicing and dicing until it's interpretable
- Overcoming barriers for successful data collection in schools
- Efficiency of data collection and analysis
- Frequency vs. episode tracking



Dimensions of Behavior

- Frequency (or rate)
- Duration
- Intensity
- Latency



In applied settings some of these are easier to measure than others. Frequency being the most common measure.



Choosing What and How to Measure

- Determine what is the most important dimension of behavior?
 - Example: One major behavior episode per day; each episode has a duration of 45 minutes.
- Which of these dimensions of behavior most sensitive to change (change can be detected by the measurement system).
 - In the above example, duration more likely to more immediately reflect change if intervention is effective.
 - Question becomes would reducing the duration by 50% be considered a valued outcome by teaching staff? (Same frequency but duration now 25 minutes).
- If we change the unit of analysis from episodes per day to episodes per week are we now able to easily detect change? (instead of 5 episodes a week, episodes occur 3 days per week).
 - Would that change be considered a valued outcome by teaching staff?



Choosing What and How to Measure

- What is most feasible measure?
 - Duration often not feasible in classroom setting?
 - Frequency usually more feasible especially if moderate to low frequency behaviors.
- Choosing the measurement period.
 - If low frequency, then may be necessary to measure all day.
 - If moderate to high frequency the choosing a shorter measurement period makes data collection more feasible.
 - Rule of thumb: the higher the frequency the shorter the measurement period can be.
 - The larger the unit of analysis, the longer it will take to detect change.
 - Measure during high risk times.



References

Andersen, M., & Daly, E. J. (2013). An Experimental Examination of the Impact of Choice of Treatment Components on Treatment Integrity. *Journal of Educational & Psychological Consultation, 23*(4), 231-263.

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*(6), 499-507.

Dane, A. V., & Schneider, B. H. (1998). Program integrity in primary and early secondary prevention: are implementation effects out of control?. *Clinical psychology review, 18*(1), 23-45.

Gresham, F. M., Gansle, K. A., Noell, G. H., Cohen, S., & Rosenblum, S. (1993). Treatment integrity of school-based behavioral intervention studies: 1980–1990. *School Psychology Review, 22*(2), 254-272.

Groskreutz, N. C., Groskreutz, M. P., & Higbee, T. S. (2011). Effects of varied levels of treatment integrity on appropriate toy manipulation in children with autism. *Research in Autism Spectrum Disorders, 5*(4), 1358-1369.

Jones, K. M., Wickstrom, K. F., & Friman, P. C. (1997). The effects of observational feedback on treatment integrity in school-based behavioral consultation. *School Psychology Quarterly, 12*(4), 316.



References

Joyce, B. R., & Showers, B. (2002). Student achievement through staff development.

Moncher, F. J., & Prinz, R. J. (1991). Treatment fidelity in outcome studies. *Clinical psychology review*, 11(3), 247-266.

Mortenson, B. P., & Witt, J. C. (1998). The use of weekly performance feedback to increase teacher implementation of a prereferral academic intervention. *School Psychology Review*, 27(4), 613-627.

Northup, J., Fisher, W., Kahng, S. W., Harrel, R., & Kurtz, P. (1997). An assessment of the necessary strength of behavioral treatments for severe behavior problems. *Journal of Developmental and Physical Disabilities*, 9, 1-16

Wickstrom, K. F., Jones, K. M., LaFleur, L. H., & Witt, J. C. (1998). An analysis of treatment integrity in school-based behavioral consultation. *School Psychology Quarterly*, 13(2), 141.

Wilder, D. A., Atwell, J., & Wine, B. (2006). The effects of varying levels of treatment integrity on child compliance during treatment with a three-step prompting procedure. *Journal of Applied Behavior Analysis*, 39(3), 369-373.

Yeaton, W. H., & Sechrest, L. (1981). Meaningful measures of effect.