Gayle J. Luze, Ph.D., and
Carla A. Peterson, Ph.D.,
Iowa State University

Improving Outcomes for Young Children
by Assessing Intervention Integrity and Monitoring Progress:

"Am I Doing it Right and Is it Working?"

Providing effective services to promote development of all children is the goal of programs serving young children; this is especially important for programs that include young children who have disabilities or are at risk. Ensuring effectiveness of programming for each individual child can be difficult, and many children will need individualized interventions to address their specific goals. It is essential that these interventions be planned and implemented well. In fact, the Division for Early Childhood (DEC) of the Council for Exceptional Children (CEC) recommends practices addressing this issue with the guideline stating that, "Recommended instructional strategies are used with sufficient fidelity, consistency, frequency, and intensity to ensure high levels of behavior occurring frequently" (Wolery, 2002, p. 37). This article describes assessment of intervention integrity and child progress monitoring components teachers can use to help ensure effectiveness of individual interventions.

Ms. Youngston, an experienced preschool teacher, makes a considerable effort to meet the individual needs of all the children in her classroom. She studies related issues and talks frequently with other teachers about how to improve her teaching. A few weeks after Alana is enrolled in her room, Ms. Youngston becomes worried about Alana's development as she seems to be struggling in a number of areas. Ms. Youngston meets with Alana's parents to discuss her concerns, and they all agree that Ms. Youngston should share her concerns with the school's Intervention Team to get ideas for classroom adaptations to assist Alana. To prepare for the meeting with the Intervention Team, Ms. Youngston gathers information about Alana's current level of performance at school and integrates these data with information shared by

Alana's parents. She reports that Alana has difficulty maintaining her attention to task, learning new concepts as quickly as the other children, articulating words clearly, and using words to communicate effectively with others. At the team meeting, Ms. Youngston shares this information with the team members who brainstorm possible solutions. They agree on an intervention to help address each concern. The team develops plans for each intervention, and Ms. Youngston takes careful notes about what to do.

Ms. Youngston has been working very hard to implement the team's suggestions for several weeks and is hopeful that her efforts will improve Alana's growth. However, as she reviews the forms the team completed to describe each intervention, she asks herself, "Am I doing the interventions the way we planned them at the Intervention Team meeting? How will I know if the interventions are working?"

If you were Ms. Youngston or a member of her Intervention Team, could you answer these questions? The team did not discuss how to make these determinations. Monitoring intervention integrity could help provide answers to these questions.

What Is Intervention Integrity?

Intervention integrity, the degree to which an intervention is implemented as originally designed (Gresham, 1989), must be considered when determining intervention effectiveness. The relationship between change in a child's performance and the intervention that was implemented cannot be established without knowing if the intervention was implemented as planned. Intervention integrity is also known as treatment integrity, treatment fidelity, or procedural reliability/fidelity/integrity. While the terms are often used interchangeably, procedural reliability is actually a broader term, referring to examining all relevant variables that might affect the outcome of intervention implementation (including variables that are changed or manipulated as well as those held constant; Billingsley, White, & Munson, 1980).

Measuring and maintaining intervention integrity does not by itself ensure a successful outcome. But, it does provide interventionists with additional information that can be used to make any changes necessary to increase the likelihood of an intervention's success. When an intervention is not implemented as planned and the intervention is not successful in bringing about the desired level of child change, the interventionist lacks necessary information to decide if this intervention was not a good fit for the child and/or the problem, or if part of the intervention necessary for success simply was not implemented. Monitoring intervention integrity provides the missing piece of data allowing interventionists to determine when intervention changes are needed.

Interventions implemented with integrity have been found to be more effective (Gresham, Gansle, Noell, Cohen, & Rosenblum, 1993; Noell, Gresham, & Gansle, 2002; Peterson & McConnell, 1996). While this is not surprising, several important issues warrant consideration. It may be that when intervention integrity is monitored, child progress is also monitored more closely and intervention changes are made in a timely manner resulting in increased efficiency and effectiveness. Or, it may be that when intervention integrity is monitored, the feedback given to teachers helps them maintain integrity (Noell, Witt, Gilbertson, Ranier, & Freeland, 1997).

The relationship between change in a child's performance and the intervention that was implemented cannot be established without knowing if the intervention was implemented as planned.

Occasionally, teachers will report that they do not care about what makes the difference in a child's level of skill or behavior, just that the desired change occurs (i.e., the goal has been met). However, most teachers do care about being effective and using their time and other resources in the most efficient way possible. Determining which interventions meet these criteria requires examining intervention implementation. This includes examining if the intervention was implemented as planned, and if not, what changes were made and why. If a child is not progressing as planned, intervention implementation can be examined to determine if the plan was followed. If not, the original plan can be reinstituted; and if acceptable progress is made, change can be ascribed to the intervention. If acceptable progress is still not made, the intervention planning team might determine that a new intervention may be needed to help the child develop targeted skills.

Returning to the vignette, we see that no one on the Intervention Team working for Alana collected information about how Ms. Youngston was implementing the planned interventions; thus, if Alana's behavior did change, they would still be uncertain how the change was related to Ms. Youngston's efforts. The team did recommend several intervention strategies supported by research showing intervention effectiveness when all components are included. However, if they did not communicate this clearly, Ms. Youngston may have altered the interventions, being unaware that her changes could reduce the overall effectiveness of the interventions and/or decrease their efficiency by increasing the length of time Alana may need to reach her goals.

What Are Advantages of Monitoring Intervention Integrity?

The first advantage of monitoring intervention integrity is that these efforts require a clearly developed plan, thus ensuring that everyone on the team agrees about the specifics of what will be involved in the intervention and who will be implementing each component. This should make the team aware of any teacher training required to implement interventions effectively. Another important advantage of monitoring intervention integrity is enhancing intervention effectiveness. The team will know if interventions are working by closely monitoring implementation and simultaneously measuring child progress toward stated goals. As a result, the team can make more timely and efficient decisions. A related benefit might be that when interventions are monitored for implementation integrity, this attention increases the frequency and regularity of implementation; both are important for effectiveness. Too often interventions are begun with good intentions, but unless implementation is monitored, it is easy to be less diligent in continuing to implement the intervention frequently enough to have an impact on the child's skills or behaviors.

Another advantage of monitoring intervention integrity is that the team is more likely to continue to work actively with the teacher through the entire implementation process. They are more likely to help monitor child progress and provide feedback and support to the teacher during implementation of the intervention. Research has shown that teachers or interventionists are more likely to maintain high levels of intervention integrity when they are given appropriate training and feedback about how they are doing (Noell et al., 1997; Sterling-Turner, Watson, Wildmon, Watkins, & Little, 2001). However, since most intervention planning teams do not routinely provide feedback or ongoing support to interventionists, the interventionists themselves may need to initiate this process. This was true for Ms. Youngston, from the vignette. She did not receive training in using the

... [T]eachers or interventionists are more likely to maintain high levels of intervention integrity when they are given appropriate training and feedback about how they are doing ....

planned interventions, nor did she receive regular support or feedback from the Intervention Team to help her know if she was implementing the interventions correctly, or if her efforts were effective. If a member of the Intervention Team had been working with her to monitor intervention integrity and effectiveness, she would have had answers to her questions earlier, and she would have had someone to help her make decisions about any needed changes.

How Do I Monitor Intervention Integrity?

Problem-Solving Process

Monitoring intervention integrity starts at the very beginning of intervention planning. A structured problem-solving process, such as the one suggested by Deno (1995), will help the team organize intervention planning. This general problem-solving process involves defining the behavior or skill of concern, brainstorming possible interventions to teach the skill, implementing the chosen intervention, and evaluating its effectiveness. The team cycles through this process as many times as needed to develop an acceptable intervention. The steps involved in using a problem-solving approach for intervention development and monitoring of implementation integrity are described in Table 1.

Table 1
Steps in Monitoring and Maintaining Intervention Integrity

Steps in Intervention Planning and Monitoring and Maintaining Integrity
1. Intervention Team specifies an outcome goal for child change based on baseline data about current skill level and desired level of performance.
2. Team agrees on an intervention to address goal. Intervention should be one with proven effectiveness.
3. Team clearly defines intervention procedural components (via task analysis, if-then decision rules, scripts, etc.) and specifies who will implement each component at what times.
4. Team determines how to measure intervention effectiveness *and* monitor child progress.
5. Team agrees how to monitor and maintain intervention integrity: a. Determines who will monitor the intervention. b. Decides how and how often intervention integrity will be monitored and evaluated for effectiveness and need for change. c. Determines type and level of support given to teacher/interventionist.
6. Team establishes a decision-making process: a. Role of team and/or individual team members in providing support for intervention implementation and monitoring. b. Number and frequency of future meetings to evaluate effectiveness.
7. Teacher and Intervention Team member assigned to provide support to teacher monitor and ensure intervention integrity.

The team begins the process by defining child behaviors to target for change. Targeted behaviors or skills are those considered to be keystone behaviors pivotal to continued child progress or development in order to focus team discussions on those skills essential for academic and social development (Barnett, Bauer, Ehrhardt, Lentz, & Stollar, 1996). The behavior targeted for change can be a developmental or academic skill, or a social behavior. First, the behavior is clearly and objectively defined so everyone understands the concern. Then, information about how the child is currently performing (baseline data) is collected. These data can be collected using unstructured or structured observations, gathering permanent products, or videotaping behaviors of concern (Barnett, Bell, & Carey, 1999). In the case of Alana,

examples of the types of data the team would gather include how long she is able to maintain attention to different types of tasks, the number of words she uses to communicate, and how often other children/adults understand her speech.

After describing the behaviors to be targeted, the team then identifies a specific goal for child change and selects an intervention strategy. It is important that the team select intervention strategies that have been shown to be effective (Telzrow & Beebe, 2002). As the team brainstorms possible interventions, descriptions of the intervention can be couched in broad terms but once an intervention is selected, it is important that the intervention be planned very carefully. Each component is clearly defined so the teacher knows exactly what to do, what the child will do, and any decision rules that would apply.

Intervention components can be determined three ways. The first way is by using task analysis (breaking down a complex skill or task into smaller teachable skills). An example would be to identify each step that a child must do correctly in hand washing (Sulzer-Azaroff & Mayer, 1991). The second method is by using "if-then" decision rules, such as making a description of contingencies for each teacher and child behavior. For example, if Barrett follows directions to clean up, he earns ten minutes to play with his favorite trucks, and the teacher praises him and tells him how many minutes he has earned. But if Barrett does not follow clean-up instructions, he loses a chance to earn minutes playing with the trucks, and the teacher reminds him he will have a chance to earn time playing with the trucks the following day (Sulzer-Azaroff & Mayer, 1991).

The final way to determine intervention components is by using scripts. Scripts are guidelines for interventions that describe specific actions to be taken either to prompt or to respond to the child's behavior and describe the teacher's verbal response in actual terms the teacher will use (Barnett, Bell, & Carey, 1999). An example of a script might be when a teacher gives a student, Caleb, a choice of where to work at center time by showing pictures of center choices and saying, "Caleb, do you want to work at the water table or art table first?" If Caleb makes a choice, the teacher says, for example, "You have decided to play at the water table, you can go there now." If he does not identify a choice, the teacher says, "Caleb, choose the water table or art table." Scripts are an effective way to develop intervention steps that are built on regular interactions or planned routines (Ehrhardt, Barnett, Lentz, Stollar, & Reifin, 1996).

Ms. Youngston realizes that she is often changing how she implements the interventions based on how well she thinks Alana did the day before. After learning about how to improve interventions by monitoring intervention integrity at a conference, Ms. Youngston goes back to the Intervention Team to clarify the intervention plans and outcome goals, and to develop a more systematic progress monitoring plan. Ms. Youngston and the Intervention Team review the interventions they had developed, define each behavior/skill targeted for intervention more specifically, decide to start with one intervention strategy to meet one concern, and then decide which concern(s) to focus on next. They select using words to communicate effectively as the first concern for intervention. After gathering additional baseline data about how often Alana communicates using words, the team brainstorms possible intervention strategies. One team member with experience in this area, Mr. Moeller, refers to research articles about effective strategies. The team identifies a specific goal for Alana in the area of communication: "When given a request for communication, and two or fewer prompts, Alana will respond verbally with at least a three-word sentence." The team outlines the specific intervention steps, basing them on empirically validated intervention strategies. For Alana's communication goal, they decide to use a combination of mand-model and time delay strategies (Barnett, Bell, &

Carey, 1999; Wolery, 2001). It is at this point that the team first outlines specific intervention steps and decision-making rules (see Table 2). The team selects a new starting date and assigns Mr. Moeller to help provide training and support to Ms. Youngston as she implements this new strategy.

This level of specificity may initially be uncomfortable for some teachers, especially those working in typical early childhood classrooms or child care settings who are accustomed to a more child-directed approach. However, teachers often become more comfortable with the approach after learning how the techniques used for individual interventions can be embedded in typical classroom activities and routines, and see improved results for children who require greater support and structure to be successful in inclusive settings.

An important component of selecting an intervention during the problem-solving process is determining a teacher's preferences. An intervention has a much greater likelihood of being implemented as originally designed if the teacher views it as acceptable (Miltenberger, 1990; Reimers, Wacker, & Koeppl, 1987). This step is often overlooked, as many assume that teachers will naturally object to an intervention that they do not think will work, does not match the classroom, or is not understood completely. However, this is not always true. A teacher who is concerned with a child's progress may be willing to try to make an intervention "fit" in the setting, or the teacher may not be comfortable disagreeing with the group who suggested the intervention strategy. For example, an intervention may involve a teacher giving food as a tangible reinforcer, and the teacher might think this will disrupt the rest of the students and reduce the acceptance of the target child; however, the

Table 2
Intervention Integrity Checklist for Alana's Communication Goal

Integrity Checklist for Alana's Communication Intervention

Alana's Communication Goal: When given a request for communication, and two or fewer prompts, Alana will respond verbally with at least a three-word sentence.

Prior to working with Alana: Determine when to implement time delay (activities and times of day) and how long the delay should be (number of seconds).

_____ 1. Request communication from Alana (e.g., "Alana, do you want to play at the water table or the block area?"). If Alana communicates, stop. Respond to her communication attempts appropriately.

_____ 2. Wait selected delay interval.

_____ 3. Give additional prompt/mand if needed (e.g., "Alana use words to tell me where you want to play next.").

_____ 4. Wait selected delay interval.

_____ 5. If Alana communicates appropriately, praise use of verbal communication.

_____ 6. If Alana does not communicate appropriately, provide model (e.g., "Alana, say, 'I want to play with blocks.'").

_____ 7. If Alana communicates appropriately, praise use of verbal communication.

_____ 8. *Child Progress Monitoring:* Three times per week, the number of prompts needed for Alana to communicate, and the length of sentences used by Alana to communicate.

teacher does not want to disagree with the team if they think this is the best strategy. If the team does not ask the teacher about the acceptability of this intervention, they will not know of these concerns.

Important elements that contribute to an intervention's acceptability are ease of implementation, targeting development of positive behavioral or academic skills, and matching the intervention to the classroom context (Reimers et al., 1987; Schneider, Kerridge, & Katz, 1992; Telzrow & Beebe, 2002). A few minutes spent specifying the steps involved in the proposed plan and checking that the teacher understands and finds the intervention acceptable will help ensure the intervention's implementation and potential success.

Measuring Intervention Integrity

Once an intervention plan has been developed and each team member's role outlined, a system to evaluate intervention integrity is created. This is done even before the intervention has been tried with the child to ensure that the intervention will be implemented as planned. In addition, this step can serve as a final check that everyone understands exactly what is involved. One direct and practical way to measure intervention integrity is to make a list of the components or steps, including steps in a script or contingency "if-then" rules. The resulting checklist can be either very simple or complex depending on the child's needs and the complexity of the intervention.

Developing an intervention checklist appears to be easy, but many intervention teams do not include this step in their problem-solving routine and need practice describing each element clearly. Each component is defined and described in observable terms so that even someone unfamiliar with the intervention could understand the technique. Any steps that involve corrective action or are contingent on certain types of responses from the child also must be described, and it is helpful to develop ideas about how to handle a variety of scenarios.

To evaluate implementation integrity, a criterion for acceptable level of implementation is established. This is different for each intervention, depending on the component steps. One method of evaluating integrity is to calculate the percentage of steps completed correctly compared to the steps listed in the intervention plan. Another method is for the team to indicate one or more steps that are absolutely essential in the implementation of an intervention and to base integrity on the use of those steps. A third way to evaluate implementation is to determine if the overall plan has been implemented correctly at least some identified percentage of the time (e.g., implemented the plan correctly 80% of the times it was used). There is no universal standard for the minimum level of intervention integrity to be maintained. This often must be

determined by examining all the data related to intervention implementation and child progress. Very few studies report any level of intervention integrity, and even fewer report differential effectiveness of various levels of integrity (Noell et al., 2002).

After the checklist has been developed and the teacher begins implementing the intervention, the other intervention team members continue to work with the teacher to give feedback and guidance on intervention implementation, as well as on evaluating its effectiveness. The teacher uses the checklist as a self-monitoring tool while implementing the intervention. If the teacher finds that the checklist does not accurately reflect how the intervention is being implemented, then the teacher returns to the team to change the plan. Other intervention team members can also use the same checklist to monitor intervention integrity by observing the teacher during implementation. While interventionists typically have been found to monitor intervention implementation accurately (Luze, 1997), they often need help developing the checklist and working out implementation problems to maintain integrity. The intervention team continues to help the teacher by giving support and feedback. The schedule of this assistance should be established at the time the plan is developed, and future team meetings are scheduled to evaluate the plan as necessary.

Monitoring Child Progress

Another important tool to determine intervention effectiveness is frequent monitoring of the focus child's progress toward targeted skills. While most teachers are very familiar with a number of forms of assessment used in educational settings, they may not be as familiar with the use of frequent progress monitoring related to child outcomes. When child performance data are gathered and analyzed frequently, intervention changes can be made in a timely manner if the child is not making appropriate progress toward the established goal (Deno, 1997; Lentz, Allen, & Ehrhardt, 1996). To improve intervention effectiveness, these data are gathered, analyzed, and used for decision making by the interventionist on a frequent basis. Data should be collected while an intervention is being implemented or immediately after it has been completed (while it is best to gather data during implementation, it is not always feasible) so that the teacher is not simply guessing about how the intervention was implemented. The key is to analyze and use data to make decisions about the effectiveness of an intervention, not just to gather the data.

Ms. Youngston decides to use the intervention integrity checklist three times per week to determine if she is indeed following the plan and not making changes as a result of the previous day's experience. She knows that this intervention could be implemented at many times during the school day, so she decides to focus on morning group time, center choice time, and snack/lunch time. At first, Ms. Youngston carries a clipboard with all the intervention steps listed on it so she can refer to it as a guide, as well as keep data about implementation integrity. While she is interacting with Alana or immediately following an interaction, Ms. Youngston checks the steps that she implemented. She is then able to immediately review how well she implemented the intervention. She meets with Mr. Moeller weekly for support and feedback about how well she is implementing each step of the intervention, and how well Alana is progressing. Mr. Moeller uses the same checklist to monitor Ms. Youngston's implementation of the intervention, and discusses any help she needs to implement the intervention as planned, or helps to plan any needed changes. Ms. Youngston is glad to have more information about how accurately she is implementing the intervention and more support in making decisions.

Mr. Moeller is not able to observe Ms. Youngston during class time, so they videotape her class during the

identified integrity monitoring periods, and when he watches the tapes at a later time he uses the same checklist as Ms. Youngston to determine how well she is maintaining integrity. At first, Ms. Youngston maintained 100% integrity, but after several weeks it dropped to between 70% and 80%, indicating she was implementing the intervention correctly only 70-80% of the time. After discussing the intervention integrity checklists both completed, along with other notes each made, the teachers decide that Ms. Youngston is not waiting long enough for Alana to respond and is giving too many prompts for communication (not providing models). Together, the teachers decide on several private prompts/reminders Ms. Youngston can give herself to increase her wait time and give models. Mr. Moeller and Ms. Youngston continue to meet, decreasing the frequency of meetings over time, discussing intervention integrity, as well as Alana's progress. The entire team meets after several months and are able to determine that Ms. Youngston has implemented the intervention as planned and that the intervention has been effective. Alana now communicates with teachers and peers independently. The results of this intervention and the monitoring done by Ms. Youngston and Mr. Moeller give the team valuable information to use in planning future interventions of this type for other children.

How Do I Make This Happen?

Currently, you may be implementing intervention plans without monitoring intervention integrity and may be wondering how you can get your team to begin this process. First, obtain support from your intervention planning team to include this new step. Then assign an intervention planning team member to each teacher implementing an intervention. This team member's role is to provide feedback and support, as well as monitoring to ensure that intervention integrity exists. This person can be different for each teacher or intervention. The process may feel awkward initially, but with practice it will go more smoothly. This process may also sound like a lot of work. At first, it may seem that this time might be better spent working with children. However, it is best to ensure that the time spent interacting with children is maximally effective, rather than implementing interventions that seem like good ideas but may not change children's skills in desired ways. Monitoring intervention integrity is one tool that can be used to ensure that your efforts are both efficient and effective.

At the end of the school year, Ms. Youngston and the other Intervention Team members share information from the integrity checklists and the progress monitoring data with Alana's parents and the receiving kindergarten teachers. They find the information helpful in planning for the coming school year. The Intervention Team at Ms. Youngston's school had been wondering for some time how effective their team was when helping teachers plan interventions. After the team's success helping Ms. Youngston use intervention integrity checklists, they meet with their administrators and request additional training in operating effective problem-solving teams and integrating the use of intervention integrity checklists into their routine practice. They plan to use the process with all their intervention planning in the future.

Note

You can reach Gayle J. Luze by e-mail at gluze@iastate.edu

References

Barnett, D. W., Bauer, A. M., Ehrhardt, K. E., Lentz, F. E., & Stollar, S. A. (1996). Keystone targets for change: Planning for widespread positive consequences. *School Psychology Quarterly, 11*, 95-117.

Barnett, D. W., Bell, S. H., & Carey, K. T. (1999). *Designing preschool interventions: A practitioner's guide.* New York: Guilford.

Billingsley, F., White, O. R., & Munson, R. (1980). Procedural reliability: A rationale and an example. *Behavioral Assessment, 2*, 229-241.

Deno, S. L. (1995). School psychologist as problem solver. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology III* (pp. 471-484). Bethesda, MD: National Association of School Psychologists (NASP).

Deno, S. L. (1997). Whether thou goest ... Perspectives on progress monitoring. In J. W. Lloyd, E. J. Kameenui, & D. Chard (Eds.), *Issues in educating students with disabilities* (pp. 77-99). Mahwah, NJ: Lawrence Erlbaum.

Ehrhardt, K. E., Barnett, D. W., Lentz, Jr., F. E., Stollar, S. A., & Reifin, L. H. (1996). Innovative methodology in ecological consultation: Use of scripts to promote treatment acceptability and integrity. *School Psychology Quarterly, 11*, 149-168.

Gresham, F. M. (1989). Assessment of treatment integrity in school consultation and prereferral intervention. *School Psychology Review, 18*, 37-50.

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*, 254-272.

Lentz, Jr., F. E., Allen, S. J., & Ehrhardt, K. E. (1996). The conceptual elements of strong interventions in school settings. *School Psychology Quarterly, 11*, 118-136.

Luze, G. J. (1997). *The relationship of intervention acceptability and integrity in general classroom interventions.* Unpublished doctoral dissertation, Iowa State University, Ames.

Miltenberger, R. G. (1990). Assessment of treatment acceptability: A review of the literature. *Topics in Early Childhood Special Education, 10*, 24-38.

Noell, G. H., Gresham, F. M., & Gansle, K. A. (2002). Does treatment integrity matter? A preliminary investigation of instructional implementation and mathematics performance. *Journal of Behavioral Education, 11*, 51-67.

Noell, G. H., Witt, J. C., Gilbertson, D. N., Ranier, D. D., & Freeland, J. T. (1997). Increasing teacher intervention implementation in general education settings through consultation and performance feedback. *School Psychology Quarterly, 12*, 77-88.

Peterson, C. A., & McConnell, S. R. (1996). Factors related to intervention integrity and child outcome in social skills interventions. *Journal of Early Intervention, 20*, 146-164.

Reimers, T. M., Wacker, D. P., & Koeppl, G. (1987). Acceptability of behavioral interventions: A review of the literature. *School Psychology Review, 16*, 212-227.

Schneider, B. H., Kerridge, A., & Katz, J. (1992). Teacher acceptance of psychological interventions of varying theoretical orientation. *School Psychology International, 13*, 291-305.

Sterling-Turner, H. E., Watson, T. S., Wildmon, M., Watkins, C., & Little, E. (2001). Investigating the relationship between training type and treatment integrity. *School Psychology Quarterly, 16*, 56-67.

Sulzer-Azaroff, B., & Mayer, G. R. (1991). *Behavior analysis for lasting change.* Fort Worth, TX: Harcourt Brace College Publishers.

Telzrow, C. F., & Beebe, J. J. (2002). Best practices in facilitating intervention adherence and integrity. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology IV* (pp. 503-516). Bethesda, MD: National Association of School Psychologists (NASP).

Wolery, M. (2001). Embedding time delay procedures in classroom activities. In M. Ostrosky & S. Sandall (Eds.), *Young Exceptional Children Monograph Series No. 3, Teaching strategies: What to do to support young children's development* (pp. 81-90). Longmont, CO: Sopris West.

Wolery, M. (2002). Recommended practices in child-focused interventions. In S. Sandall, M. E. McLean, & B. J. Smith (Eds.), *DEC recommended practices in early intervention/early childhood special education* (pp. 29-37). Longmont, CO: Sopris West.