

MONITORING AND INCREASING GOAL RELATED INSTRUCTION AND
ENGAGEMENT IN GROUPS OF CHILDREN WITH AUTISM

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Thesis Prepared for the Degree of
MASTER OF SCIENCE

UNIVERSITY OF NORTH TEXAS

May 2012

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Rossi, Kathleen Anne. Monitoring and increasing goal related instruction and engagement in groups of children with autism. Master of Science (Behavior Analysis), May 2012, 62 pp., 3 tables, 1 figure, references, 34 titles.

A high rate of instructional engagement is important to maximize progress in early intensive behavioral interventions (EIBI). Teachers responsible for eliciting instructional engagement may need additional support to maintain high rates of engagement. Literature suggests that goal setting and feedback is effective in increasing performance. The purpose of this study was to evaluate whether goal setting and group feedback would increase engagement in instructional activities related to the children's goals. Results indicate that goal setting and group feedback was successful in increasing engagement in instructional activities. The results are discussed in the context of engagement, staff performance, group contingencies and performance feedback.

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ACKNOWLEDGEMENTS

Thank you to my parents for your unwavering support and love. You have always been a source of encouragement and security. You have taught me the value of hard work, determination, and resolve. I dream big because you support me in everything I do. Thank you to my advisor, Dr. Shahla Ala'i-Rosales for your guidance and dedication. Your passion and love for your work is truly inspirational. I hope to take your compassion and your insightfulness with me into my future career. Thank you to my committee members, Dr. Shahla Ala'i-Rosales, Dr. Jesus Rosales-Ruiz, and Dr. Traci Cihon for your time, patience, and incredible feedback. Thank you also to my fellow graduate students and friends. Thank you to Laura Coulter for your support. I don't know what I would have done without your patience and feedback. Thank you to Sara Weinkauff, Nicole Zeug, Jeff Gesick, Megan Thompson, and Brittany Vaughn for all your time and assistance. Finally, thank you to the Friday autism lab for your patience and enthusiasm.

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INTRODUCTION

High quality, sustained instructional engagement is related to progress. Regardless of the population or the intervention style progress does not occur without engagement. Greenwood, Delquadri, and Hall (1984) reported that “frequently observed delays in the academic competence of inner-city, low-SES (socioeconomic status) students was a function of their academic instruction and their teachers’ use of instructional strategies that failed to optimally engage the students’ academic behavior for sufficient periods each day” (as cited in Greenwood et al.). With lower rates of engagement, children make less progress.

To engage is “to hold the attention of: to induce to participate” (Webster, 2004). Engagement in intervention related activities is to occupy one’s attention or efforts to those activities. There are many ways to be engaged. In the present study, we are concerned about teachers engaging children with autism in instructional activities. For example, if a child has a goal to learn requesting, the child would be engaged in an instructional activity if he/she is playing on a swing with a teacher and the teacher holds the swing still until the child says, “swing.” The activity is instructional goal engagement because it is directly related to one of the child’s learning objectives.

An important aspect of instructional engagement is the teacher’s role in creating opportunities to learn, thereby eliciting and maintaining engagement. Risley and Cataldo (1973) developed a tool, the PLA-CHEK, to measure activity engagement. With the PLA-CHEK, a teacher would quickly sweep the room and identified if individuals were or were not engaged in the provided activities. Greer (1994) examined “learn units” as a measure of engagement. Learn units are interlocking three-term contingencies between a teacher and student. “Interlocking” refers to teachers’ ability to adjust their responding and presentation of antecedents based on

student responding (Greer & McDonough, 1999). Greenwood et al. (1994) looked at “opportunities to respond” as a measure of instructional engagement. Opportunity to respond is a description of the interaction of a teacher formulating instruction and its success in establishing a response (Greenwood, Delquadri, & Hall, 1984). Whether measured as components of learn units or opportunities to respond, effective methods to train staff to increase and maintain instructional engagement among groups of children are desirable.

Staff engagement and instructional opportunities have been suggested as one important component of intervention effectiveness in children with autism. Research indicates that with *intensive* instructional engagement children with autism can make substantial progress (Eldevik et al., 2009; Howard, Sparkman, Cohen, Green, & Stanislaw, 2005; Matson & Minshawi, 2006). For example, Howard et al. (2005) studied the effects of three types of early intervention strategies on three groups of children with autism. Intensive behavior analytic treatment (IBT) included 35 to 40 hours of 1:1 intervention per week. The children receiving IBT had 50- 100 learning opportunities per hour. The autism educational programming group (AP) had a 1:1 or 1:2 staff to child ratio. Children in the AP group received 25-30 hours of intervention per week. The generic educational programming (GP) included an average of 15 hours of intervention per week. The children receiving GP were enrolled in a local special education classroom identified as early intervention preschool programs. The GP intervention had a 1:6 adult to child ratio. Results indicated that the children in the IBT group had higher mean scores in all skill domains after treatment than the other two groups combined. These researchers postulated that the differences found between the experimental groups could have been largely due to the differences in the number of learning opportunities per hour that occurred in the intensive behavioral intervention

Studies in staff training in educational settings have focused on teaching skills teachers do not already exhibit (Petscher & Bailey, 2006; Kissel, Whitman, & Reid, 1983; Lavie & Sturme, 2002), refining a previously learned skill (Schepis, Reid, Ownbey, & Parsons, 2001; Dib & Sturme, 2007; Sarokoff & Sturme, 2004), or generalizing skills to a new setting (Ducharme & Feldman, 1992). Part of learning to teach is to engage the child in frequent teaching interactions. This is a specific area of teaching performance that can be monitored and improved.

One method of increasing staff performance is providing performance feedback. Performance feedback in school settings has been used alone or in combination with other training strategies to improve attendance at school (Hall, Cristler, Cranston, & Tucker, 1970), improve implementation of IEP goals (Coddling, Feinberg, Dunn, & Pace, 2005), improve implementation of teaching procedures (Dib & Sturme, 2007; Lavie & Sturme, 2002), improve student attending (Cossairt, Hall, & Hopkins, 1973), improve performances of female soccer players (Brobst & Ward, 2002), and increase effectiveness of classroom observations for principals (Gillat & Sulzer-Azaroff, 1994). In a review of performance feedback, Balcazar, Hopkins, and Suarez (1985) provided six characteristics of performance feedback across which feedback can vary. One characteristic of feedback is the degree of privacy with which feedback is provided. Feedback may be provided publicly (Brobst & Ward, 2002) or privately (Dib & Sturme, 2007). Public posting of feedback (Brobst & Ward, 2002; Hall, Cristler, Cranston, & Tucker, 1970; Quilitch, 1975) is an efficient method to provide feedback to a group without interrupting daily activities. Quilitch (1975) showed that staff scheduling and publicly posting the number of clients defined as *active* increased staff assistance to engage the clients in activities. In this study *active* was defined as engaging in independent activities, social activities,

recreational activities, or grooming activities. The number of active clients subsequently increased after public posting. Additionally, the authors found that previous staff- training strategies, such as memos and workshops, were ineffective in increasing staff assistance of client engagement.

Staff performance can be monitored individually or as a group. Group contingencies are “contingencies in which the behavior of one or more group members determines the consequences received by at least one other member of the group” (Speltz, Shimamura, & McReynolds, 1982, p.533). Group contingencies can be effective in modifying behavior and are useful in that multiple individuals’ behavior can be monitored at one time. Group contingencies have been used to increase academic performance (Speltz, Shimamura, & McReynolds, 1982; Pigott, Fantuzzo, & Clement, 1986), increase appropriate classroom behavior (Greenwood, Hops, Delquadri, & Guild, 1974), and increase social interactions (Kohler et al., 1995). Group contingencies are beneficial in that they allow for the behavior of multiple individuals to be monitored at one time. Additionally, Kohler et al. (1995) suggests that supportive behaviors emerge from group contingencies. Hayes (1976), however, suggests that group contingencies can also lead to competition between group members that can be positive, in increasing target behaviors, or negative, by producing verbal threats among group members.

Another method of increasing staff performance is goal setting, which is often combined with public posting. For example, McKenzie and Rushall (1974) showed that both attendances to soccer practice and work rate during soccer practice increased with public posting and goal setting. Brobst and Ward (2002) suggest that there are advantages to combining public posting and goal setting. “Goal setting provides an explicit criterion, as public posting is a method that makes the performances public and also provides feedback to performers” (Brobst & Ward,

2002, 248). In their review, Balcazar, Hopkins, & Suarez, (1985) state that using a goal in addition to feedback increases the consistency of the effects of feedback. In the same review, the authors suggest that goal setting acts as a discriminative stimulus to prompt work behaviors for staff, which are then maintained by rewards and a community of reinforcement that are already in place.

Teachers are responsible for teaching the goals of intensive behavioral programs. One element for intensive behavioral programs is to address learning goals in all skill domains (Green, Brennan, & Fein, 2002). It is important for teachers to learn teaching strategies to target learning goals across domains and to maintain a high frequency of teaching interactions across environments. Teachers typically have a more difficult time in traditionally less structured environments, such as gym and outdoors. Additional support for maintaining teaching strategies in these environments may be warranted.

The purpose of the present study was to evaluate whether goal setting and group feedback would increase engagement in instructional activities related to the children's goals. The setting was one that the community agency, where the study took place, felt needed attention: gym time.

METHODS

Setting

Easter Seals of North Texas Autism Treatment Program (ESNT-ATP) was the setting for the current study. The primary investigator utilized two rooms for this study, the classroom and the gym.

The classroom contained five areas. The first area, the play area, contained toys such as large manipulatives, pretend-play toys, board games, blocks, and cars. The second area, the art area, consists of a large table next to a shelving unit with a variety of art materials, including paint, paper, markers, crayons, stickers, chalk, glue, and scissors. The third area, the odds and ends area, contained a couch, puzzles, small manipulatives, and a bookcase with a rotation of themed age-appropriate books. The fourth area, the tutoring area, contained tables with four to six chairs. The final area, the circle-time area, included an interactive calendar, a circle-time rug, and a shelving unit with materials such as books and materials for group interaction.

The second room, the gym, contains a variety of gross motor materials. The materials included a ball pit, a sand table, cushioned mats, and swings (single person, double person, hammock, and doughnut).

Participants

This project was done as part of agency evaluation and on going staff performance activities. The primary investigator selected two times for observation: gym time, which occurred in the gym, and game time, which occurred in the classroom. Gym time and game time were to occur on consistent schedules daily. Observers took data for all teachers and children in the designated area at the time of the activities. The center's scheduling involved different teachers with different children everyday. A total of 21 teachers participated in this study. The

teachers were in their early 20s to 30s and were primarily women; three of the teachers were young men. All teachers had previously completed a formal training program required by the site (Wienkauf, Zeug, Anderson & Alai-Rosales, 2011). All teachers had earned a bachelor's degree, except one who was in the process of completing her bachelor's degree. Experience working with individuals with disabilities ranged from one and a half years to nine years. Length of time working at ESNT-ATP ranged from six months to three years.

A total of 13 children participated in the study. All the children were between the ages of 3 and 6, and diagnosed with autism spectrum disorder by outside agencies. Children's skill levels ranged from one word requesting to responding to peer requesting. Instructional programs included social/play, learn to learn, activities and interests, and self-help domains. Generally, the instruction during gym time should have included functional communication training, gross motor instruction, or social/play instruction. The instruction in the classroom should have included functional communication training, learn to learn instruction, or social/play instruction.

Measures

The dependant variable was percent of intervals each child was engaged in instructional activities. Instructional engagement assessed what the child and teacher were doing at the moment. Instructional engagement was defined as "participating in goal areas, including both participation in activity related to individual goals as listed in code or overall goals related to prepared activity" Table 1 provides an overview of the complete instructional engagement definition and examples and exclusions for one child.

It should be noted that additional measures were taken during observations, however, only the measures for goal engagement were applicable and used for the current study (see Appendix A for the full observation code).

The primary investigator adapted an observation code, the PLA-CHEK, developed by Risley & Cataldo (1973). The observer performed a 5 second momentary time sample focusing on one child's activities at a time to indicate if the children were engaged as expected (see Appendix B for example data sheet). Observers positioned themselves in an unobtrusive location, so all activities and children were easily observable. As cued by a recording, observers located the first child, watched for 5 seconds, and recorded the child's behavior. If the child was not in the room or could not readily be seen, observers marked an X through the data box. If the observer's vantage point was blocked the observer would change locations. When cued by the recording that 5 seconds had elapsed, observers located the next child, watched for 5 seconds, and recorded the child's behavior. This series of observer behaviors were repeated every 5 seconds for one minute. At the end of a minute, observers started again with the first child and repeated the observer behaviors for another minute. At the end of 10 minutes, observers stopped taking data. Data on the child/teacher dyads could be analyzed individually or as whole group.

Each observer went through observation training to become accurate and fluent in using the code (Observation Training Manual; see Appendix C). Observers completed code training when the trainee and primary observer were taking reliable data.

Procedures

Baseline

Observers collected baseline data for 10 minutes, 3 days a week for 2 weeks in each setting. Teachers were not told during baseline what observers were observing. Supervisors and other project developers were taking data on different behaviors during the same recording period. Observers positioned themselves in unobtrusive areas in the rooms allowing them to see

all of the participants and not interrupting activities. Activities during baseline progressed as per usual.

Intervention

The intervention consisted of three phases. Each phase involved an adjusted group goal and feedback. Intervention targeted only the gym time, with the classroom data used for comparison purposes. A percent engaged goal was set for the percent of intervals engagement on goal related activities should occur. The goal increased for each phase of the intervention.

In the first phase, an email was sent out to all individuals working at the site with a newsletter (see Table 2). The newsletter indicated a project was in progress examining engagement, provided some tips to increase engagement, and provided a graph of engagement with a highlighted goal area between 20% to 30% of time engaged. The tips for Phase 1 were: (1) Be familiar with your assigned child's teaching programs, (2) Read through program materials before you are with the child, NOT while you are with the child, (3) Remember that the number of learning opportunities is closely related to progress = maximize the number of times the child is responding, (4) Regulate reinforcers: position yourself so that you have access to desired items and so the child has to respond to get access, provide enough of the consequence so that it will be reinforcing, but not so much that you lose teaching time.

These tips were specifically selected based on anecdotal observations during baseline of what might be reducing instructional engagement. The rationales for each tip were as follows: (1 and 2) teachers looked over children's programs during teaching time. The tips to be familiar with the teaching programs and to read through program materials before working with the child were included to reduce the amount of time teachers were spending looking over program details while with the child. (3) Teachers were taking recording data for a long period of time after a

child's response to instructions. The tip to maximize the number of times the child was responding was included to increase the amount of teaching time. (4) Teachers provided long periods of time for reinforcer consumption. The tip to regulate reinforcers was also included to increase the amount of teaching time.

The graph of instructional engagement was also posted in both the gym and the teacher office area. Tips were selected based on anecdotal observations of what might increase or be blocking engagement, such as "Read through program materials before you are with the child, not while you are with the child."

Feedback was provided everyday by supplying a graph of the group performance and commenting on the performance of that day related to the tips from the newsletter on a whiteboard. Stickers were provided on the feedback board on days that the goals were met. The stickers were similar to the graphics on the newsletter and were intended as a fun way to communicate goal performances.

Phase 2 was implemented when the percent of time engaged in goal activities was in or above the goal area consistently. Phase 2 was exactly the same as the first phase except that the goal area increased to 30% to 40% time engaged. A newsletter was sent out again with some of the same tips and new tips. The tips were again selected based on anecdotal observations during the first phase. In general, teachers were still spending a significant amount of time going through the children's teaching programs and not enough time working with the children. Furthermore, teachers were still not regulating access to reinforcers, but rather allowing long consumption periods. The tips for phase two were: (1) maximize the number of times the child is responding, (2) be familiar with your assigned child's teaching programs, (3) read through

program materials before you are with the child, NOT while you are with the child, (4) regulate reinforcers.

The newsletter also contained an updated graph with Phase 1 data included as well as the new goal area highlighted. Procedures for data collection and feedback were the same as phase one. Phase three was implemented when the percent of time engaged in goal activities was at or above the goal area consistently.

Phase 3 was exactly the same as the second phase except that the goal area increased to 40% to 50% of time engaged. A newsletter was sent out again with a few new tips, based on anecdotal observations during phase two of things that may be blocking engagement. At this point only a few teachers did not respond to the tips; they were still going through children's programs during teaching time and allowing long "breaks" between instructional units.

Additionally, as the goal increased, some teachers seemed to need direction and would likely benefit from help from more skilled staff. Tips for Phase 3 were: (1) help each other with ideas for engagement, (2) maximize the number of times the child is responding, (3) be familiar with your assigned child's teaching programs, (4) read through program materials before you are with the child, NOT while you are with the child, (5) regulate reinforcers.

The newsletter also contained an update graph with phase two data included as well as the new goal area highlighted. Procedures for data collection and feedback were the same as phase one. All newsletters are included in Appendix D.

Design

A changing criterion design (Hall, 1971) was used to evaluate intervention effects. Before moving to the next criteria jump of 10%, participants had to be responding for five consecutive sessions with that criterion range.

Interobserver Agreement

Observers were trained in vivo until agreement level rose to greater than 80%. Interobserver agreement (IOA) was taken throughout the study for 38% of the total observations conducted. IOA was calculated by summing the total intervals in agreement and dividing it by the total number of intervals. Agreement levels ranged from 81% to 100% (mean of 87%). See Table 3 for detailed IOA results.

Social Validity

After the completion of data collection, a social validity survey was sent to all involved teachers for feedback and to assess if teachers received and read the newsletters. The survey was provided to seven participants in person. These participants were members of a debriefing presentation. The remainder of the participants were provided the survey via an online survey creator, Qualtrix™. (See Appendix E for complete questionnaire.)

RESULTS

Figure 1 shows percent of time engaged in goals for both the gym (intervention setting) and the classroom (non-intervention setting). In the intervention setting, the ball gym (top panel of Figure 1), baseline levels of engagement were below 20% engaged in goal instruction activities. In the non-intervention setting, the classroom (bottom panel of Figure 1), baseline levels of engagement were relatively high and seem to be on a slight upward trend with points reaching up to 40% engaged.

The first phase of goal setting and daily feedback was implemented in the gym. The first phase targeted the goal at 20% to 30% (highlighted in yellow). Goal engagement rose to above 20% immediately and remained in or above the highlighted area for the remainder of the phase.

During the second phase of goal setting and daily feedback in the gym, the goal was to increase the percent of time engaged in goals as a group to 30% to 40% (highlighted in yellow). Group responding was below the goal area the initial day of the phase. The following five days, the group met or surpassed the set goal.

The third phase of goal setting and daily feedback in the gym increased the goal to 40% to 50% engaged in goals. Group responding was in or above the goal area for the first three days in this goal area. The following day, responding dropped below the goal area. Subsequent days, however, responding rose back up into the goal area. In the classroom no goal or feedback was ever provided. The percent of goal engagement initially seemed to be continuing on an upward trend; however as the phase continued the percent of time engaged bounced between 30% and 50%. Instruction in this setting, for the entire study, was one on one trial based instruction. Teachers stayed with their children and worked on goals such as play goals, fine motor goals, and instruction following goals.

Social Validity

Table 4 shows the all the responses received from teachers to the social validity survey. All teachers reported that they thought that observers were observing engagement, either teacher/child engagement or goal engagement. Most teachers also reported that they thought we were taking data to increase or improve engagement. Two teachers thought we were taking data to provide feedback and one teacher stated we were taking data to determine if observation code was an accurate measurement system.

All teachers stated that they did look at the graphs and feedback board, though two teachers reported they only occasionally looked at it. Most teachers reported that they liked seeing the increase in engagement on the posted graph. Two teachers stated that the goal range was helpful, while three teachers liked the feedback related to the tips. Three teachers additionally reported that they enjoyed the stickers both for themselves and for giving to the children.

All teachers reported that they received a newsletter by email. Five teachers stated that they noticed the graph first when looking at the newsletter. Five teachers noticed the graphics (decorative pictures) first, while one teacher noticed the format first. Most teachers liked the graph in the newsletter. One teacher liked the description of the project, and another liked the tips to improve engagement. One teacher really liked the color, while a different teacher liked that the length of the newsletter was short. Most teachers did not find anything they did not like about the newsletter. One teacher reported that they did not read the newsletter every time they received one, but did look at the graphs. One teacher stated that the tips were not helpful in increasing engagement and another teacher felt that the newsletters were repetitive with no way

to guarantee teachers were reading them. One teacher did not like the graphics and colors of the newsletter.

Most teachers felt there was some difference when rating their degree of behavior change as a result of this project. While two felt they experienced no behavior change, two other teachers felt they experienced “complete” behavior change. Most teachers ranked the importance of their behavior change as very important. Four teachers ranked the importance of their behavior change as moderately important and one teacher ranked the importance as not important. Most teachers were comfortable with the way their behavior was changed. Three teachers reported ambivalence regarding their comfort level with the behavior change. One teacher was uncomfortable with they way their behavior was changed. Most teachers were satisfied with they way their behavior changed.

Two teachers additionally commented that they enjoyed the stickers for themselves and for the kids under their care. One teacher felt their behavior was never affected by observers or the newsletter. One teacher reported that they found themselves more conscious of their behavior and felt more high-energy while working. One teacher stated that this was a great way to increase staff performance in a noninvasive manner. One teacher felt the importance of behavior change was important but relative and possibly tied to the magnitude of change.

DISCUSSION

Overall, the results suggest that group goal setting and feedback increased the percentage of time goal instruction occurred in the intervention setting, the gym. Prior to this study, the teacher participants were all trained and able to work on instructional goals, however the results show that more support and feedback was necessary to ensure that goal instruction was occurring at a higher rate in the gym setting as opposed to more clearly defined instructional settings such as the classroom. The use of the modified PLA-CHEK allowed rapid observation of the entire group's engagement in instructional goals. Increasing instructional engagement is important to the effectiveness of early intensive intervention (Howard, 2005) and to the goals of instructions more generally (Greer & McDonough, 1999; Greenwood et al., 1994). Furthermore, this study supports that staff performance is responsive to change (Coddling, Feinberg, Dunn, & Pace, 2005; Dib & Sturme, 2007; Gillat & Sulzer-Azaroff, 1994; Lavie & Sturme, 2002; Quilitch, 1975) and asserts that goal setting and feedback are effective for increasing staff performance (Balcazar, Hopkins, & Suarez, 1985).

The group contingency proved effective in increasing group levels of instructional engagement. By displaying data for only the group, participants were not aware of individual performances. One of the concerns with group contingencies is the emergence of aversive control with the group (Hayes, 1976). Staff did not report, nor were aversive procedures observed among staff. That is, they did not in any way taunt or threaten each other based on the performance, as is sometimes reported with group contingencies (Axelrod, 1973). The group contingency was designed for teachers to help each other with ideas to improve engagement. The teamwork appeared to assist with the increase in instructional engagement.

The data from the non-intervention setting, the classroom, was at an acceptable level during baseline and maintained over the course of the study. There appeared to be little interaction between these two baselines. These data confirmed the anecdotal observations that teachers are less likely to have high instructional engagement during less structured play times, such as gym and outdoor periods. The gym, however, was conducive to many types of instructional opportunities. Traditional classroom settings seemed to have more clearly defined protocols and expectations for engagement as well as more supervisor presence. This may account for the higher engagement in the classroom throughout the study.

The changing criterion design selected for this intervention was utilized in order to systematically and gradually increase low and unacceptable engagement to high and acceptable engagement. The goal for the first phase was set at 20 to 30% of time engaged in goals to allow for the participants to contact positive feedback and be successful. It also allowed investigators to observe changes in teaching and identify barriers and potential skills that if displayed would increase engagement. The successive goals in the second and third phases were set at an achievable percentage to keep participants successful. Percentages above this level were not expected and that time was spent in reinforcer consumption (activities) and transitions from one activity to another. Feedback from the social validity survey suggested that the participants did keep track of their progress on the graph and generally enjoyed seeing success in the graphs.

It should be noted, however, there may have been some reactivity. Anecdotally, the observers saw some changes in teacher behavior that may indicate reactivity to the way in which observing was done. The observation code required an observer to sweep the room to take data on everyone in the room. The observer, therefore, had to be present in the room to see all areas in the room. The teachers may have displayed some reactivity to being observed. For example, as

the observations continued the teachers would congregate with their kids in a location in the room that was far away from the observers. Additionally, toward the end of the study fewer student teacher diads would come to the group times in which observations were taking place. It is not clear if this was due to scheduling changes or a reaction to the project.

The topography of the instruction changed as the goal areas change. During the first phase of intervention, anecdotal observations suggested that the topography of goal instruction was primarily one on one instruction, with the teacher employing discrete trial instruction (e.g. flashcards) or mand training (e.g. asking for play items) with the children. Teachers stayed with the child and engaged in one or two activities during the entire observation period and ran trial blocks of goals. The teachers primarily worked on functional communication and gross motor goals, such as requesting and ball playing.

During the second phase of intervention, anecdotal observations suggested that the topography of goal instruction remained a trial based one on one form of instruction, similar to that of phase one. When the goal increased in the third phase, the topography of goal instruction changed from primarily 1:1 instruction to group instruction. Anecdotal observations during this phase noted that the topography changed to a quick, naturalistic style of teaching. Teachers *worked together* to arrange the environment into activities that more than one child could utilize to work on goals. Teachers in this phase were also more likely to move from one activity to another with the child and create opportunities for instruction in each of the activities. Child goals commonly addressed in this phase included functional communication goals, as well as social goals. Examples of these goals included working on the kids playing on the same toys or playing in a close proximity to other children. This is interesting in terms of selecting a staff training strategy. There may be certain training strategies that are complimentary to high rates of

instructional engagement and cooperative work among staff members. Future studies may keep increasing the goal areas to see if the topography continues to change and if certain instructional styles are better suited to high rates of instruction.

Although this intervention was effective, it is not clear what aspect of the intervention produced the behavior change. The intervention was implemented as a package. Feedback from the teachers after the intervention in the social validity survey suggested that the most noted aspect of the intervention were the feedback graphs on both the newsletter and the feedback boards. Although it is suggested that goal setting in combination with feedback is more effective than feedback alone (Balcazar, Hopkins, & Suarez, 1985), future research separating out the aspects of the intervention package may determine what aspect of the intervention was responsible for the behavior change. This study extends and supports research on public posting, goal setting, and feedback (Balcazar, Hopkins, & Suarez, 1985). The current study was similar to the outcomes reported by McKenzie & Rushall, 1974, who reported that goal setting and continuous feedback increased performance.

A limitation and strength of the present study was that the intervention was organized with group data. This meant that everyone's data counted in for the group data. With the code, however, observers could take individual as well as group data. This provided valuable information aside from the information reported in this study. With group goal setting and group feedback relative changes in individual behavior were not presented. A few teachers showed little to no improvement in the percent of time spent working on goals. At the same time, a supervisory tool that so effectively increases overall engagement is useful. It is important that all teachers spend time working on goals at an acceptable rate, therefore a more individualized

intervention may be necessary for those who continued to show low engagement. This information would prove particularly useful to supervisors utilizing this code in their facility.

A final consideration is that the teacher participants in the present study were primarily graduate students in a master's program for behavior analysis. This may have affected motivation in different aspects of the study. First, the teachers are learning to take, analyze, and use data as part of their career path. This may create more motivation or interest in the tips for engagement and for the graph. Additionally, they would be taking classes at the same time as the intervention. There is no way to determine if the classes in Behavior Analysis did or did not have an effect on the behavior change. Finally, the teachers are familiar with using graphs and deal with them regularly. There may be a unique set of reinforcers for these individuals with relation to seeing data improve on a graph. Further research should be done with individuals with limited exposure to behavior analysis outside of the intervention and training of the site.

In conclusion, the easy observation system, the simple tip sheet, and group feedback via public posting package resulted in increased engagement. Unstructured periods are also full of teaching opportunities. This system allowed supervisors to assist staff to maintain high levels of engagement across therapeutic settings.

Table 1

Instructional Engagement Definition and Examples for Sample Child

Instructional Engagement (Engaged in Goal Activity): Child is working on any goal area. Activities can include social/play goals, learn to learn, activities and interests, and self-help goal areas. The child should be working on a goal. Includes individual goals and activity goals: Refer to child's individual program for individual goals.

Individual Goals

Child: Sample

Communication: Requests- Requests items/actions with vocals and eye contact.

Examples:

- Child says "b" for ball. (eye contact with teacher, and teacher is holding or be near ball)
- Child says "pu" for push. (eye contact with teacher, and teacher is holding the swing)
- Teacher and child have eye contact and teacher is prompting a vocalization.

Non-examples:

- Child says "b" (there is no eye contact or ball in vicinity)
- Child says "pu" (child is no eye contact)
- Child says nothing but is pointing at ball
- Child says "dada" (there is eye contact, but no dad around)

Motor Imitation: Touch shoulders, Turn around- Imitates actions when provided a model

Examples:

- Child touches shoulders after a model from teacher
- Child turns around after a model from teacher
- Teacher and child are looking at each other and teacher is prompting physical movements

Non-examples:

- Child is not looking at teacher
- Child turns around without model or instruction
- Child walks away

Vocal Imitation: "buh"- Imitates vocalization when provided a model

Examples:

- Child says "buh" after teacher provides vocal model
- Child provides vocalization after teacher provides vocal model
- Child and teacher are looking at each other and teacher is prompting vocalization.

Non-examples:

- Child is not looking at teacher
- Child wanders away

Note:

Refer to individual programs or ask a case manager for further details on any individual program.

Table 2

Initial Newsletter

Ideas to Improve Instructional Engagment

1. Be familiar with your assigned child's teaching programs.
2. Read through program materials before you are with the child, NOT while you are with the child.
3. Remember that the number of learning opportunities is closely related to progress = maximize the number of times the child is responding
4. Regulate reinforcers:
 - * position your self so that you have access to desired items and so the child has to respond to get access
 - * provide enough of the consequence so that it will be reinforcing, but not so much that you loose teaching time



As part of a program development project for ESATP, Shahla and Katie are developing an observation code for monitoring instructional settings so that we all can improve our teaching environment.

As part of this project we have been sampling the amount of time children are engaged in goal related activities (versus off task). Basically, this means what percent of the time you and the children are doing something related to teaching programs.

I will be posting graphs of child engagement so that you can see current levels of focused teaching. Together we will increase overall engagement. The graphs will allow you to see improvements.



To make this fun (and funny) and so that you have a tangible token of progress, we will set out a bunch of stickers for you and the kids when we get into the desired "zone". Our goal is to get into the "awesome" zone within six days and the "amazing" zone after twelve. Let's see what we can do!

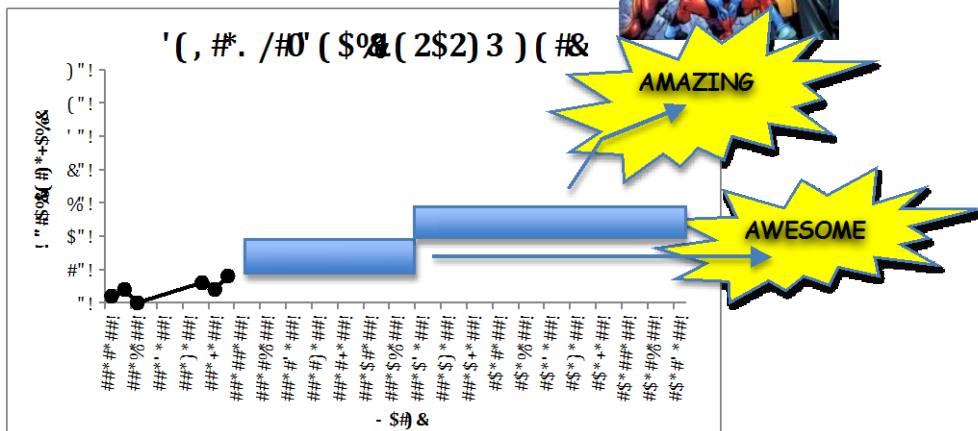


Table 3

Percent of Interobserver Agreement

<i>Measure</i>	<i>Baseline</i>				<i>Intervention</i>							
Engaged in Goal	96	98	100	95	88	93	90	96	91	88	100	
Not Engaged in Goal	96	91	98	86	90	80	90	94	89	88	100	
Engaged in Inappropriate Behavior	NA	NA	NA	95	100	96	100	100	98	100	100	
Transitions	100	98	92	100	100	100	100	100	100	100	100	
Engaged with peer	99	100	97	98	98	98	100	100	98	95	100	
Engaged with teacher	87	87	92	94	92	89	90	94	91	90	100	
Engaged alone	85	83	88	87	92	84	90	92	93	90	100	
Group	100	96	92	100	100	98	100	100	100	100	100	
Individual	100	100	92	95	98	96	100	98	100	100	100	

Instructional Engagement- Gym



Instructional Engagement- Classroom

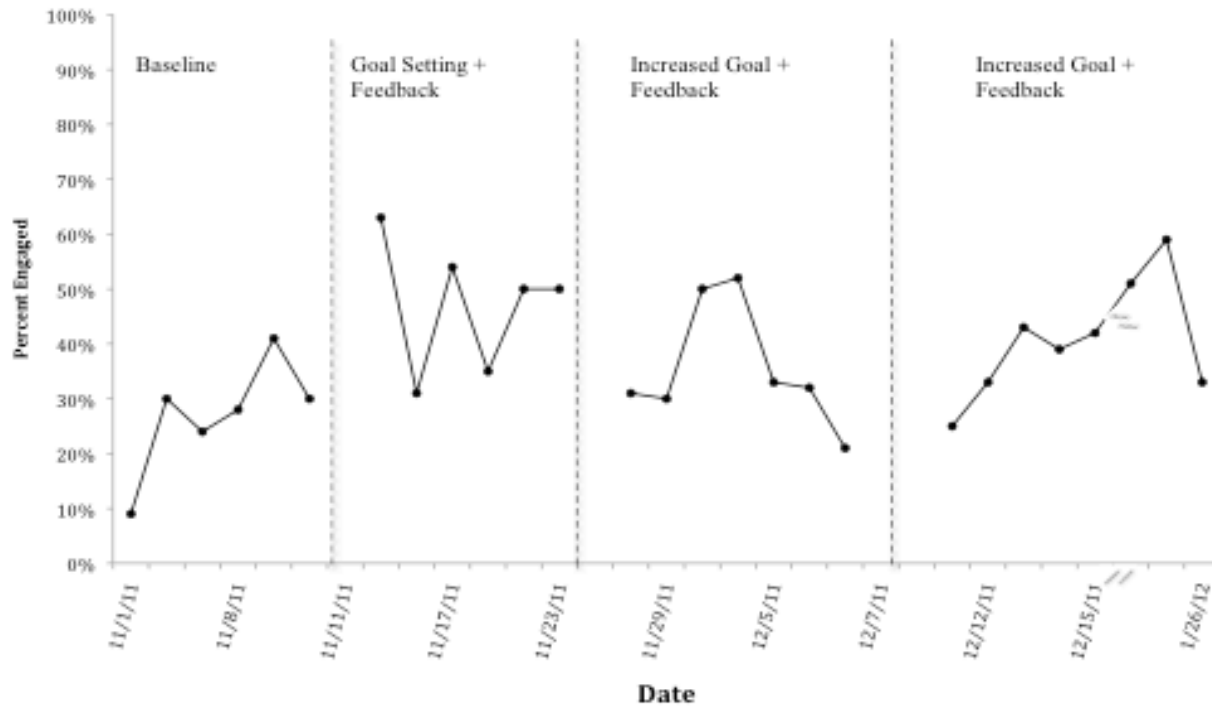


Figure 1. Top panel shows percent of engagement in intervention setting. Bottom panel shows engagement in non-intervention setting.

APPENDIX A
OBSERVATION CODE

Classroom Engagement Observation Code

Katie Rossi & Shahla Ala'i-Rosales
Revised 11/16/11

Directions:

- Stand in a location that allows you to see all of the children and what they are doing.
- Put child's initials down left column of code
- Start cuing recording
- Locate each child. Watch each child for five seconds and score child's activities accordingly:
 - If you cannot see the child- mark an X through the complete box- DO NOT guess as to what the child is doing
 - Only mark what you see: do not try to infer what is happening
 - If the child is not in the room scribble through the box to show they were not in the room
 - If the child is engaged in an inappropriate behavior- tantrum, engaging in stereotypic behavior alone (not while doing another activity)- circle N.
- Move from child to child as cued

Special considerations:

- Always look at child first, then look at teacher assigned to child. Score according primarily to how the child is engaged, but be aware of the interaction of the teacher and child. Some goals, such as approach, are more subtle. There will be behaviors to observe in both the teacher and the child to suggest they are working on these goal behaviors (Teacher attempting to gain eye contact, holding preferred activities, reinforcing approximations, etc.)

Goal Engagement Definitions:

Engaged in Goal Activity:

Child is working on any goal area. Activities can include social/play goals, learn to learn, activities and interests, and self-help goal areas. The child should be working on a goal. Includes individual goals and activity goals: Refer to child's individual program for individual goals.

Examples:

- Child is working on reading goals:
 - Sounding out words
 - Pointing to pictures
 - Responding to questions about book
 - Labeling letters
- Child is working on functional communication
 - Asking for an item
 - Responding to a question
 - Pointing to an item
 - Labeling an item
- Child is working on social goal
 - Eye contact with peer
 - Initiating conversation with a peer
 - Responding to a peer
- Child is working on play goal
 - Sitting near a game
 - Sharing items with peers
 - Initiating statements about game to peers

Non-examples:

- Child is walking around, not part of an activity
- Child is swinging, not a goal area
- Child is playing with toys, not a goal area

Not Engaged in Goal Activity:

Child is not participating in prepared activity or related activity that pertains to participant's goals.

Examples:

- Child is looking out window, not part of activity
- Child is wandering around the room, not part of activity
- Child is walking around the room; teacher is following and not interacting

Non-Examples:

- Child is looking around while sitting and waiting for turn in game
- Child is wandering around looking behind toys while playing hide and seek

Inappropriate behavior:

Scored under Not engaged but scored with a circle not a slash.

Inappropriate behavior can include any behavior that are not appropriate and are interfering with working on goals.

Examples:

- Child is throwing a tantrum
- Child is engaging in stereotypic behavior while not participating in an activity

Non-examples:

- Child is participating in a group activity and engaging in stereotypic behavior.

Transitions:

Child is engaged in activities associated with entering or leaving the room. The child must be entering or leaving the room. The activities may include taking off or putting on shoes, orienting to the room, or selecting a location in the room to go to (if these are not specifically goal activities for the child).

Examples:

- Child is taking shoes off inside the door of the ball gym
- Child is looking around the room while entering the room

Non-examples:

- Child is taking shoes off while in the schoolroom.
- Child is looking around the room after working for 10 minutes.
- Child is moving from one activity to another activity

Social Engagement Definitions:

Engaged with Teacher:

Child is engaged in same activity with the participation of the teacher. Must be involved in the same activity.

Examples:

- Child and teacher play tickle game
- Child and teacher play with board game (Child and teacher are both looking at the board game, or child is looking at the teacher)
- Child and teacher build with blocks
- Child and teacher work on puzzle together
- Child and teacher are both holding game pieces and looking at each other

Non- Examples:

- Child is sitting next to the teacher with no interaction
- Child is walking away from the teacher
- Child is not near the teacher

Engaged with Peer:

“Child is engaged in the same activity in interdependent or shared play. (Interdependent play includes handing materials to the peer, participating in the same activity or talking about the same topics)”

-MacDonald et al. (2009)

Examples:

- Child and peer play chase
- Child and peer play with board game
- Child and peer play with blocks
- Child and peer play hide and seek

Non-Examples:

- Child and peer are next to each other but not interacting
- Child and peer are orienting toward each other but not interacting

Alone:

Child is not participating with a peer or a teacher. Child may be near other people but is not interacting with them.

Examples:

- Child is playing with board game but is not looking or participating with people
- Child is playing with cars but is not moving car similar to other children
- Child is sitting next to the teacher, but there is no eye contact or interaction
- Child is sitting at snack time but is looking out the window

Non-examples:

- Child is playing with board game and is facing other children
- Child is playing with board game and is handing materials to other children
- Child is playing with board game and is imitating what teacher is doing
- Child is sitting with the teacher and looking at the teacher.

Group Engagement Definitions

Group:

Child is participating in an activity with one or more peers. Child does not need to be interacting with peers, just engaged in the same activity.

Examples:

- Child is in the ball pit with another child
- Child is sitting at the snack table with other children
- Child is playing with blocks and is sitting next to another child playing with blocks
- Child is sitting at the art table with other children

Non-Examples:

- Child is in the ball pit by himself
- Child is sitting at the snack table with a teacher but no other children
- Child is playing with blocks next to a child playing with Mr. Potato Head

Individual:

Child is participating in an activity by themselves, or with a teacher. The child is not participating in the same activity as other children.

Examples:

- Child is in the ball pit by himself
- Child is sitting at the snack table with a teacher but no other children
- Child is playing with blocks next to a child playing with Mr. Potato Head

Non-Examples:

- Child is in the ball pit with another child
- Child is sitting at the snack table with other children
- Child is playing with blocks and is sitting next to another child playing with blocks
- Child is sitting at the art table with other children

APPENDIX B

DATA SHEET

Data Sheet for Classroom Engagement and Interactions

Directions:

1. Position yourself so that activities and children are easily observable
2. Place initials of each child down the left row of data sheet
3. Start cuing recording
4. Locate each child. Watch each child for five seconds and score child's activities accordingly
5. Move from child to child as cued

Goals	Key Engagement	Type
G= Engaged in goals activity	p= Engaged with peer	g= Group
N= Not engaged in goal activity	t= Engaged with teacher	i= individual
X= Transitions	a= Alone	

Date: _____ Observer: _____
 Start Time: _____ End Time: _____ Scheduled Activity: _____

Child:	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00
	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i
	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i
	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i
	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i
	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i
	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i
	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i
	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i
	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i	G N X p t a i

APPENDIX C
OBSERVATION CODE TRAINING PROTOCOL

Classroom Engagement Observation Code Training Protocol



Katie Rossi & Shahla Ala'i-Rosales
Revised 11/16/11

Purpose:

The purpose of the scoring code is to be able to quickly and efficiently observe the room and all of the children. The code will indicate if the children are engaged as expected and will allow for quick data to be collected and analyzed in order to make immediate changes to the environment to maximize learning and social opportunities.

Data Sheet for Classroom Engagement and Interactions

Directions:

1. Position yourself so that activities and children are easily observable
2. Place initials of each child down the left row of data sheet
3. Start coding recording
4. Locate each child. Watch each child for five seconds and score child's activities accordingly
5. Move from child to child as cued

Goals	Key Engagement	Type
G= Engaged in goal activity	p= Engaged with peer	g= Group
N= Not engaged in goal activity	t= Engaged with teacher	i= Individual
X= Transitions	a= Alone	

Date: _____ Observer: _____
 Start Time: _____ End Time: _____ Scheduled Activity: _____

Child:	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00
	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i
	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i
	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i
	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i
	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i
	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i
	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i
	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i
	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i	G N X g p t a i

Step 1: Review Data Sheet

- Provide example data sheet to observer
- Review entire data sheet:
 - Point out key
 - Point out directions
- Review measures briefly and explain that you will go into greater detail on each measure definitions in a little while
- Show observer where to list the date, observer name, the start and end times, and the scheduled activity for that time period.
- Show observer where child's initials go and where to mark data for that child (the row that includes the child's initials)

Important Point!!

Review:

- Data sheet
- Timer
- Measures
- Directions
- Floor Plan

Child:	1:00	2:00	3:00	4:00	5:00
KR	P O N g p t a i 1 2 3 4 X	P O N g p t a i 1 2 3 4 X	P O N g p t a i 1 2 3 4 X	P O N g p t a i 1 2 3 4 X	P O N g p t a i 1 2 3 4 X
JD	P O N g p t a i 1 2 3 4 X	P O N g p t a i 1 2 3 4 X	P O N g p t a i 1 2 3 4 X	P O N g p t a i 1 2 3 4 X	P O N g p t a i 1 2 3 4 X
	P O N g	P O N g	P O N g	P O N g	P O N g

- Go through the measures in the key and where on the data sheet the observer will mark the behaviors-
 - **Note:** show that the top line of the measures is all of the measures for goal areas (*see diagram below*), the next line is all of the measures for engagement, and the two measures on the side are type of activity.

Goals	E	Child:	1:00	2
G= Engaged in goals activity		G N X	g	G
N= Not engaged in goal activity		p t a	i	p
X- Transitions		G N X	g	G

- Explain the timer and how the timer will be used along with the data sheet

NOTE:

The timer will go off every 5 seconds- at this point switch child observing.

The timer will again go off every minute- at this point switch time column for data collection.

- Allow for the observer to listen to the timer and show where the observer should be on the data sheet as the timer continues

Questions??????

Step 2: Review Behavior Definitions

- Revisit the purpose of the code

- Read the directions of how to use the code while showing the observer the data sheet

Important Point!!

- Review definitions, examples and non-examples for each measure IN DETAIL:
 - Engaged in Goal
 - Not Engaged in Goal
 - Engaged with Peer
 - Engaged with Teacher
 - Engaged Alone
 - Group
 - Individual

- Read the scoring instructions
- Review ALL of the measures
- Read each definition of each measure, with examples and non-examples (Explain each example and non-example)
 - Review as necessary for observer

Questions???

Step 3: Model

- Proceed to an area with multiple children present
- Inform the observer that they will be watching one child with you for two minutes only and you will model for them how to take data
- Review the behavior definitions with the observer
- Point out the child you will be observing
- Place the child's initials in the correct box on the data sheet
- Fill out the date, observer, scheduled activity and start time on the data sheet
- Begin the timer
- After two minutes have elapsed ask the observer why they thought you scored the behavior the way you did.
- Discuss how the data fits in with the behavior definitions with the observer
- Explain again why you took the data the way you did

Important Point!!

Model and explain EVERY step you are taking, even if you feel weird doing it. Make sure observer understands everything that you are doing!!

REPEAT AT LEAST TWICE!!

Questions????



Step 4: Practice

- Proceed to a play session, or location of groups of children
- Inform the observer that they will be watching one child with you for two minutes and both of you will be taking data on the child's behavior
- Provide the observer with a data sheet, and a copy of the behavior definitions
- Ask if the observer needs to review any of the definitions
- Point out the child you will be observing
- Begin the timer
- After two minutes have elapsed compare data and talk about discrepancies
- Discuss how the data fits in with the behavior definitions with the observer

Important Point!!

Compare Data and discuss discrepancies...

Questions????



Step 5: Build Fluency

By now the observer should be getting comfortable with the definitions and the code. This step may take longer for some individuals as this step is meant to be sure the observer is comfortable with the speed of taking data and can do it accurately and fluently

- Proceed to a play session
- Inform the observer that they will be watching two child with you for two minutes and both of you will be taking data on the child's behavior
- Provide the observer with a data sheet and a copy of the behavior definitions
- Ask if the observer needs to review any of the definitions
- Point out the children you will be observing
- Begin the timer
- After two minutes have elapsed compare data and talk about discrepancies
- Discuss how the data fits in with the behavior definitions with the observer

This step will be repeated increasing the number of children to be observed by one each time an observation occurs until all of the children are being observed. Following this increase the observation time period will increase to 5 minutes, then to the full 10 minutes.

Repeat as necessary until observer is coding accurately and is comfortable with the system.



Behavior Definitions



Directions:

- Stand in a location that allows you to see all of the children and what they are doing.
- Put child's initials down left column of code
- Start cuing recording
- Locate each child. Watch each child for five seconds and score child's activities accordingly:
 - If you cannot see the child- mark an X through the complete box- DO NOT guess as to what the child is doing
 - Only mark what you see: do not try to infer what is happening
 - If the child is not in the room scribble through the box to show they were not in the room
 - If the child is engaged in an inappropriate behavior- tantrum, engaging in stereotypic behavior alone (not while doing another activity)- circle N.
- Move from child to child as cued

Special considerations:

- Always look at child first, then look at teacher assigned to child. Score according primarily to how the child is engaged, but be aware of the interaction of the teacher and child. Some goals, such as approach, are more subtle. There will be behaviors to observe in both the teacher and the child to suggest they are working on these goal behaviors (Teacher attempting to gain eye contact, holding preferred activities, reinforcing approximations, etc.)

Goal Engagement Definitions:

Engaged in Goal Activity:

Child is working on any goal area. Activities can include social/play goals, learn to learn, activities and interests, and self-help goal areas. The child should be working on a goal. Includes individual goals and activity goals: Refer to child's individual program for individual goals.

Examples:

- Child is working on reading goals:
 - Sounding out words
 - Pointing to pictures
 - Responding to questions about book
 - Labeling letters
- Child is working on functional communication
 - Asking for an item
 - Responding to a question
 - Pointing to an item
 - Labeling an item
- Child is working on social goal
 - Eye contact with peer
 - Initiating conversation with a peer
 - Responding to a peer
- Child is working on play goal
 - Sitting near a game
 - Sharing items with peers
 - Initiating statements about game to peers

Non-examples:

- Child is walking around, not part of an activity
- Child is swinging, not a goal area
- Child is playing with toys, not a goal area

Not Engaged in Goal Activity:

Child is not participating in prepared activity or related activity that pertains to participant's goals.

Examples:

- Child is looking out window, not part of activity
- Child is wandering around the room, not part of activity
- Child is walking around the room; teacher is following and not interacting

Non-Examples:

- Child is looking around while sitting and waiting for turn in game
- Child is wandering around looking behind toys while playing hide and seek

Inappropriate behavior:

Scored under Not engaged but scored with a circle not a slash.

Inappropriate behavior can include any behavior that are not appropriate and are interfering with working on goals.

Examples:

- Child is throwing a tantrum
- Child is engaging in stereotypic behavior while not participating in an activity

Non-examples:

- Child is participating in a group activity and engaging in stereotypic behavior.

Transitions:

Child is engaged in activities associated with entering or leaving the room. The child must be entering or leaving the room. The activities may include taking off or putting on shoes, orienting to the room, or selecting a location in the room to go to (if these are not specifically goal activities for the child).

Examples:

- Child is taking shoes off inside the door of the ball gym
- Child is looking around the room while entering the room

Non-examples:

- Child is taking shoes off while in the schoolroom.
- Child is looking around the room after working for 10 minutes.
- Child is moving from one activity to another activity

Social Engagement Definitions:

Engaged with Teacher:

Child is engaged in same activity with the participation of the teacher. Must be involved in the same activity.

Examples:

- Child and teacher play tickle game
- Child and teacher play with board game (Child and teacher are both looking at the board game, or child is looking at the teacher)
- Child and teacher build with blocks
- Child and teacher work on puzzle together
- Child and teacher are both holding game pieces and looking at each other

Non- Examples:

- Child is sitting next to the teacher with no interaction
- Child is walking away from the teacher
- Child is not near the teacher

Engaged with Peer:

“Child is engaged in the same activity in interdependent or shared play. (Interdependent play includes handing materials to the peer, participating in the same activity or talking about the same topics)”

-MacDonald et al. (2009)

Examples:

- Child and peer play chase
- Child and peer play with board game
- Child and peer play with blocks
- Child and peer play hide and seek

Non-Examples:

- Child and peer are next to each other but not interacting
- Child and peer are orienting toward each other but not interacting

Alone:

Child is not participating with a peer or a teacher. Child may be near other people but is not interacting with them.

Examples:

- Child is playing with board game but is not looking or participating with people
- Child is playing with cars but is not moving car similar to other children
- Child is sitting next to the teacher, but there is no eye contact or interaction
- Child is sitting at snack time but is looking out the window

Non-examples:

- Child is playing with board game and is facing other children
- Child is playing with board game and is handing materials to other children
- Child is playing with board game and is imitating what teacher is doing
- Child is sitting with the teacher and looking at the teacher.

Group Engagement Definitions

Group:

Child is participating in an activity with one or more peers. Child does not need to be interacting with peers, just engaged in the same activity.

Examples:

- Child is in the ball pit with another child
- Child is sitting at the snack table with other children
- Child is playing with blocks and is sitting next to another child playing with blocks
- Child is sitting at the art table with other children

Non-Examples:

- Child is in the ball pit by himself
- Child is sitting at the snack table with a teacher but no other children
- Child is playing with blocks next to a child playing with Mr. Potato Head

Individual:

Child is participating in an activity by themselves, or with a teacher. The child is not participating in the same activity as other children.

Examples:

- Child is in the ball pit by himself
- Child is sitting at the snack table with a teacher but no other children
- Child is playing with blocks next to a child playing with Mr. Potato Head

Non-Examples:

- Child is in the ball pit with another child
- Child is sitting at the snack table with other children
- Child is playing with blocks and is sitting next to another child playing with blocks
- Child is sitting at the art table with other children

APPENDIX D
NEWSLETTERS

Ideas to Improve Instructional Engagement

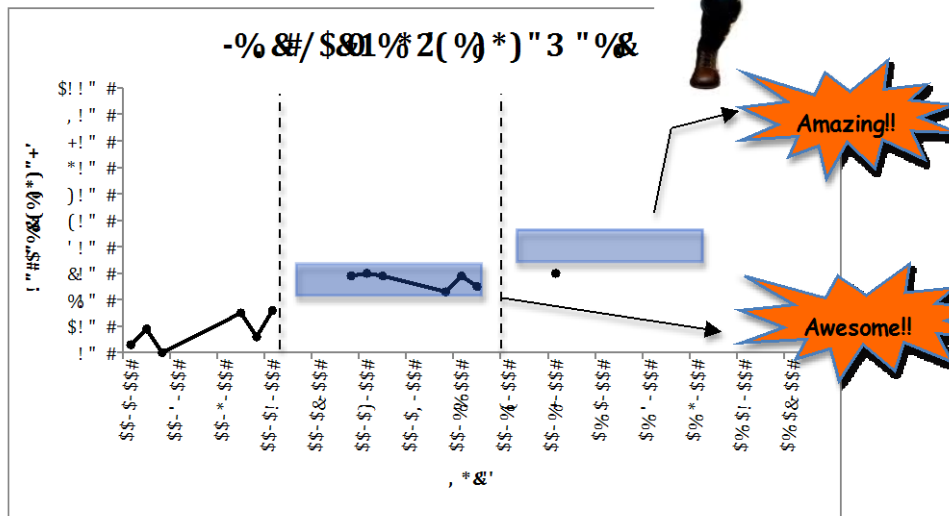
1. Maximize the number of times the child is responding.
2. Be familiar with your assigned child's teaching programs.
3. Read through program materials before you are with the child, NOT while you are with the child.
4. Regulate reinforcers



Here is an update of the program development project Shahla and Katie have developed for ESATP. We have been sampling the amount of time children are engaged in goal related activities (versus off task). Basically, this means what percent of time you and the children are doing something related to teaching programs. Remember to keep an eye on the graphs to see where the current levels are.

The last two weeks, the goals for instructional engagement have been in the "awesome" zone. The team did AWESOME with this. You all stayed in the "awesome" zone each day. Well done!!!!

Our next goal is to get in the 30%- 40% range, or the "Amazing" zone. Please read the hints above to increase instructional engagement. Lets see what we can do!!
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Ideas to Improve Instructional Engagment

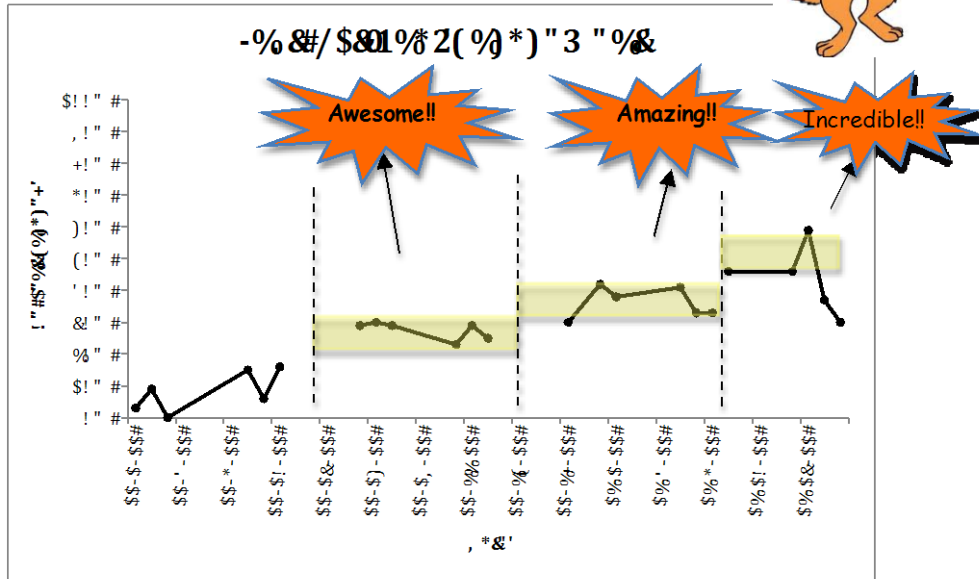
1. Help each other with ideas for engagement.
2. Maximize the number of times the child is responding.
3. Be familiar with your assigned child's teaching programs.
4. Read through program materials before you are with the child, NOT while you are with the child.
5. Regulate reinforcers.
6. Teach and engage before writing down data.



Here is an update of the graph of the program development project Shahla and Katie are developing for ESATP. We have been sampling the amount of time children are engaged in goal related activities (versus off task). Basically, this means what percent of time you and the children are doing something related to teaching programs. We have been taking data for everyone as a group, as well as individual data.

As you can see, y'all did a great job with all the goal zones. There was a little slippage before break, but engagement still remained high. Y'all rock!! Try to keep the engagement as high as you can. Remember to work together to keep up the engagement.

Keep an eye on that graph!!!! Let's see what we can do!#



APPENDIX E
SOCIAL VALIDITY SURVEY

Social Validity Survey questions Teachers

The following questions will be provided in the form of an online survey. Please type each question exactly as written.

1. As you know we have been observing for the last couple of months. What do you think we have been observing?
2. Why did you think we were taking data?
3. Did you ever look at the graphs and feedback board?
4. What did you notice or like about the graphs or feedback board?

For the next 4 questions, provide refer to this sample newsletter.

5. Did you ever receive one of these in an email?
6. What is the first thing that you notice when looking at this newsletter?
7. What did you like about the newsletter?
8. What did you NOT like about the newsletter?
9. Please rate the following:
 - a. The degree of behavior change for you as a result of this project: (1-no change... 5-some change... 10- complete change)
 - b. The importance of your behavior change: (1- Not important... 5- moderately important... 10- very important)
 - c. Your comfort with the way your behavior was changed: (1- Uncomfortable... 5- ambivalent... 10- comfortable)
 - d. Your satisfaction with the way your behavior was changed: (1- Unsatisfied... 5- ambivalent... 10- satisfied)

10. Additional Comments:

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