

HOW DO EARLY CHILDHOOD TEACHERS KNOW HOW THEY'RE DOING?  
RECEIPT OF FEEDBACK AND ITS RELATIONSHIP TO USE OF  
RECOMMENDED PRACTICES

By

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## CHAPTER I

### INTRODUCTION

Feedback is the provision of information about an individual's behavior, used to maintain or modify a certain level of performance. It has been shown to be an effective method of improving performance in business settings (see Alvero, Bucklin, & Austin, 2001; Balcazar, Hopkins, & Suarez, 1985), including manufacturing (e.g., Chhokar & Wallin, 1984), the service industry (e.g., Austin, Weatherly, & Gravina, 2005), and human services (e.g., Babcock, Sulzer-Azaroff, Sanderson, & Scibak, 1992). Specifically in education, performance feedback has been used to modify teachers' behavior—to increase their use of reinforcement-based interventions (e.g., Noell, Duhon, Gatti, & Connell, 2002; Noell, Witt, Gilbertson, Ranier, & Freeland, 1997; Witt, Noell, LaFleur, & Mortenson, 1997) and to improve the quality of the outcomes they write for individualized education programs (e.g., Coddling, Skowron, & Pace, 2005; Maher, 1980), for example.

In early childhood education for children with and without disabilities, the leading professional organizations, such as the National Association for the Education of Young Children (1996, July) and the Council for Exceptional Children's Division for Early Childhood (DEC; Sandall, McLean, & Smith, 2000), have defined recommended practices. These practices are general teaching approaches and specific interventions that have a high likelihood of producing quality environments and positive child outcomes because their efficacy has been demonstrated in the literature (Smith et al., 2002).

Recommended practices can be introduced to and maintained in teachers by a variety of personnel development activities, such as readings, in-service activities and workshops, audiovisual materials, and feedback as defined above. The literature on the efficacy of specific training practices is sparse, particularly on the efficacy of feedback and even more noticeably on the efficacy of feedback on published recommended practices. In the next section, an overview of performance feedback in early childhood contexts, focusing on intervention effectiveness and essential characteristics, is provided.

### Feedback in Early Childhood Contexts

Casey (2008) reviewed 19 studies to determine the characteristics of performance feedback provided to early childhood teachers. In the studies reviewed, verbal feedback was provided more often than written or graphed feedback and tended to be delivered weekly versus daily or monthly. Feedback most often focused on teachers' current performance as compared to previous performance, rather than comparing teachers' performance to other individuals or program-wide standards. It was most often provided by a researcher, meaning the feasibility and efficacy of feedback delivered by supervisors or consultants still needs to be examined. Finally, feedback tended to be provided after the teacher had been given information about new practices and often included praise for current levels of performance.

Casey (2008) also reviewed the efficacy of the feedback interventions. All of the studies used single-subject experimental designs. Intervention effectiveness was assessed first using a coding scheme that relied on comparison of mean changes between conditions. Effectiveness was then assessed using visual analysis of graphed data and the



results of the two analyses were compared. When mean changes were assessed, 16 of the 19 studies presented consistent feedback effects across all teachers or behaviors (i.e., desired results were obtained for all participants or all behaviors being modified). When graphed data were analyzed visually, only 5 of 19 studies presented consistent feedback effects across all teachers or behaviors. Feedback was not deemed ineffective, however, because desired results were obtained for a majority of participants and behaviors; 46 of the 74 graphs displayed in the studies showed immediate and clear feedback effects. Although it appears that estimates of study effectiveness are inflated when means are compared across conditions, visual analysis suggests that feedback is still a promising intervention in early childhood settings.

The effectiveness of performance feedback interventions can be explained by placing feedback in a behavioral framework. Feedback is a contingency for teacher behavior. It provides opportunities for teachers to receive information about their performance and gauge whether specific practices should continue to be used or should be modified. For instance, positive feedback is likely to function as a positive reinforcer; adding praise to a supervisory or consultative experience is intended to increase the teachers' use of behaviors that the feedback giver considers desirable. Negative feedback, on the other hand, is likely to function as a positive punisher; providing the teacher with information about poor performance is intended to decrease his or her use of undesirable practices. When performance feedback is provided across time, teachers have the opportunity to make quantitative or qualitative changes during each observation and receive either reinforcement or punishment. This shaping process allows the teacher to achieve the desired level of behavior through a series of successive approximations.

Shaping can be used to help teachers (a) establish a minimum level of classroom quality, (b) improve classroom quality, and (c) maintain desired levels of performance. This implies that feedback has a place in pre- and in-service professional development activities, consultation, and supervision. During pre-service professional development activities, for instance, feedback is often provided to teachers in training to establish minimum (or better) levels of teaching quality. Although the majority of the feedback received by teachers in training might be related to performance on assignments and exams, researchers have shown that providing feedback about students' performance in a classroom can also be effective in improving their skills. For instance, Morgan, Gustafson, Hudson, and Salzberg (1992) showed that verbal and written feedback could be used to increase pre-service teachers' use of effective teaching behaviors (e.g., prompts, models, visual scans, and praise). Likewise, Barton and Wolery (2007) demonstrated that undergraduate and graduate special education students' use of positive verbal behaviors (expansions and praise) could be increased when feedback was provided by email. Finally Tate, Thompson, and McKerchar (2005) showed that verbal feedback could be used to increase the amount of incidental teaching used by undergraduate student teachers. Examples such as these demonstrate that feedback can be effective in improving the skill level of teachers in training, despite variations in the content of the feedback and the mechanism used. In addition to learning from textbooks and lectures, then, providing pre-service teachers with opportunities to get in classrooms, practice skills, and receive feedback about their performance creates another means by which minimum levels of teacher quality can be established prior to entry in the field.

Once teachers are in the field, they can improve classroom quality through collaboration with consultants and participation in professional development activities. Sheridan, Kratochwill, and Bergan (1996) describe a consultant's role as training and assisting significant adults in a child's life to address environmental variables. One way that consultants assist these significant adults (e.g., teachers) is by providing information about relevant interventions and monitoring their implementation. Specifically, the consultant's role in the treatment implementation stage of consultation is to observe the classroom, assess the teacher's implementation skills and the child's response to the intervention, and provide feedback about the teacher's skills and needed revisions. The characteristics of this type of consultation – provision of information followed by classroom observation and feedback – are similar to the characteristics of effective professional development activities. After reviewing the literature, Rose and Church (1998) concluded that the most effective method for enhancing professional development is to provide teachers with a chance to practice the skill that is being taught and receive feedback about their performance. Whereas professional development activities that depend solely on didactic presentations or manualized training packages typically produce weak and inconsistent changes in teacher behavior (see Joyce & Showers, 1980; Rose & Church), adding opportunities for practice and feedback can result in consistent changes in teacher behavior (e.g., Cooper, Thomson, & Baer, 1970; Cossairt, Hall, & Hopkins, 1973; Mudd & Wolery, 1987; Schepis, Reid, Ownbey, & Parsons, 2001). Feedback, then, has proven effective for increasing the skills of both pre-service and in-service teachers. It can only be assumed that an increase in skills improves classroom quality.

Once the desired level of classroom quality is achieved, feedback can be useful for ensuring that performance is maintained. For instance, Schepis et al. (2001) demonstrated that after assistant teachers were trained to use embedded interventions, supervisors could provide them with sufficient verbal feedback to maintain or improve their use of the newly learned skills. Likewise, Schepis, Ownbey, Parsons, and Reid (2000) asked supervising teachers to provide feedback to teacher aides and substitute teachers. Supervising teachers' verbal feedback was sufficient to maintain or improve the staff's use of specific teaching strategies. These studies demonstrate that feedback can be used for general supervision and quality assurance purposes. Feedback, then, could be especially useful to program directors as they seek to ensure that program accreditation standards are being maintained.

As has been described, feedback is a strategy that can be used by a number of individuals who work with pre-service and in-service teachers and for a variety of reasons. It can be implemented across a teacher's career, for establishing classroom quality, improving it, and maintaining it. Recommended practices can be used for the same purposes. It is reasonable to assume, then, that combining the strategies might be useful for improving classroom quality; however, it is unclear whether teachers are currently receiving feedback about their use of recommended practices. According to a survey conducted in the 1990s, follow-up job assistance (feedback provided after an in-service training) was one of the five training techniques that were least experienced by early interventionists (Sexton et al., 1996). Surveying teachers and obtaining updated information about their receipt of feedback and use of recommended practices would be of value to the field.

## Purpose

This study focuses on preschool teachers' perceptions of the feedback they receive about their classroom practices. The feedback being discussed can be provided by anyone – a supervisor, co-worker, consultant, or therapist, for instance – as long as it addresses what teachers actually do in the context of classroom activities. The rationale for describing teachers' perceptions of the feedback they receive is simple: as a field, we cannot expect to influence teachers' behavior and improve the quality of preschool environments if teachers perceive our feedback as useless, too infrequent to be helpful, or nonexistent. Regardless of our intent, feedback will not actually succeed in influencing behavior unless it is received and perceived in the manner intended.

The first objective of the study was to determine if preschool teachers receive feedback. The second objective was to determine if self-reported receipt of feedback predicts teachers' self-reported use of recommended practices. The specific research questions were

1. Across the nation, are teachers receiving feedback about their use of recommended practices?
2. To what extent is self-reported receipt of feedback associated with teachers' self-reported use of recommended practices?
3. How does receipt of feedback compare with teachers' educational level, degree, and experience in explaining the variance associated with teachers' self-reported use of recommended practices?
4. How does receipt of feedback compare with other strategies used to train teachers about recommended practices?

Receipt of feedback was compared with teachers' educational level, degree (whether or not it was related to early childhood education), and experience because previous research findings suggest that teachers' characteristics explain part of the variance associated with classroom quality and teacher-child interactions. For instance, Tout, Zaslow, and Berry (2006) reviewed the literature and concluded that most studies that include teachers' educational level as a predictor report that it is a noteworthy predictor of classroom quality. Howes (1997) reported that education related to early childhood education was associated with increases in teachers' sensitivity, responsiveness, use of elaborative play, and use of positive behavior management strategies. Finally, Phillipsen, Burchinal, Howes, and Cryer (1997) reported that both educational level and experience were related to classroom quality, although more experience was related to higher scores on classroom-quality indicators only if the teacher had less than 37 months of experience; after 37 months, more experience was related to lower classroom quality.

It was hypothesized that teachers would report receiving very little feedback about their classroom practices; however, it was also hypothesized that teachers who had children with disabilities in their classroom would report receiving more feedback than teachers who did not have children with disabilities in their classroom. (The presence of children with disabilities in the classroom might mean that more consultants are available to provide feedback. The child's individualized education program might mandate that therapists, itinerant special educators, or other specialists visit the classroom, or the teacher might request feedback from supervisors and others if he or she is challenged in meeting the child's individualized needs.) Because Head Start programs share a

nationwide program structure, including standards for supervision and feedback, it was also hypothesized that Head Start teachers would report receiving more feedback than non-Head Start teachers.

As explained above, didactic training about recommended practices without the provision of feedback is not expected to promote changes in teachers' behavior; therefore, the assumption is that receipt of feedback has the power to affect teachers' use of recommended practices. The hypothesis was that receipt of feedback about classroom practices would predict teachers' self-reported use of recommended practices and would be a better predictor than variables such as teachers' educational level, degree, and experience. Furthermore, it was hypothesized that receipt of feedback would be a better predictor of teachers' self-reported use of recommended practices than other strategies used to train teachers (i.e., in-service opportunities and workshops, providing books and articles to read, modeling strategies in teachers' classrooms). A sample of preschool teachers from Head Start programs and programs accredited by the National Association for the Education of Young Children was solicited to provide the data necessary to assess the hypotheses and meet the objectives of the study.

## CHAPTER II

### METHOD

#### Questionnaire Development

A questionnaire for assessing teachers' perceptions of the feedback they receive about their classroom practices did not exist; therefore, the first step of the study was to develop an instrument. Questionnaire development involved the following: (a) obtaining formative feedback from administrators, (b) conducting focus groups with teachers to obtain information about the feedback they receive about their classroom practices, (c) drafting an instrument, (d) coordinating a field test, (e) conducting another focus group to assess teachers' interpretation of questionnaire items, and (f) making revisions to the instrument. Each of these steps is described below.

#### *Formative Feedback*

Prior to obtaining the grant that funded this study, collaborative relationships were developed with local Head Start programs. Programs were asked to participate in questionnaire development in exchange for access to the field test data and consultation about topics related to the study (i.e., methods for providing teachers with feedback about their performance) and about which the grantees had expertise (i.e., strategies for increasing children's engagement in classroom activities and managing challenging behavior). Two programs, which consisted of 19 centers and 243 teachers, agreed to



participate in questionnaire development. They are referred to as “partner sites” in the remainder of this paper.

In November 2007, a 10-item open-ended questionnaire was distributed by email to three Head Start administrators to obtain formative feedback about the content that should be included in the instrument (see Appendix A). Two administrators, one from each of the partner sites, completed the questionnaire. Examples of how their responses informed questionnaire content are described below, in the Draft Questionnaire section.

### *Focus Groups*

Focus groups were planned to obtain information about the feedback teachers receive about their classroom practices. An administrator from one of the partner sites selected two centers to participate in the focus groups (her decision was based on scheduled staff training days, number of teachers available, and number of research projects already being conducted within the centers). Flyers were distributed to all teachers within each selected center and those interested in participating contacted the author. Teachers were told they would receive a \$20 stipend for participation and that breakfast or lunch would be provided (depending on time of day).

In December 2007, two focus groups were conducted with 13 teachers. The first consisted of six teachers, three of whom were lead teachers and three of whom were assistant teachers. The second consisted of seven teachers, four of whom were lead teachers and three of whom were assistant teachers. A script was developed for approval by the Institutional Review Board (IRB; see Appendix A), although it was made clear that one purpose of the focus groups was to explore other topics that might emerge from

teacher responses. Each focus group was approximately two hours in length. Notes were taken during each focus group and an audio recording was made. The information provided by the teachers allowed a questionnaire containing items that would be relevant to teachers and their typical experiences to be drafted.

### *Draft Questionnaire*

The research questions guided questionnaire development. In addition, the administrators' formative feedback, focus group information, and the research literature were used to inform questionnaire development. The draft version of the questionnaire (which can be found in Appendix A) consisted of five question sets.

The first question set asked how many times teachers participated in specific training activities and how useful they were. Training activities consisted of attending an in-service or workshop, reading a book or article, watching an educational program (television, video, DVD), and being observed and receiving feedback. Attending an in-service or workshop was selected for inclusion because, according to focus group participants, it is an extremely popular way to provide teachers with training opportunities that are often required for licensing. Participation in in-service opportunities or workshops has also been associated with improved environmental quality and teacher-child interaction (see Tout et al., 2006), regardless of educational background (Burchinal, Cryer, Clifford, & Howes, 2002). Reading a book or article was included on the questionnaire to assess whether popular methods for research dissemination (e.g., practitioner-oriented journals such as *Young Children* and *Young Exceptional Children*) are used and effective. When asked about professional

development activities, early childhood teachers who worked with children with visual impairments reported that reading professional journals was more common than attending conferences or workshops (Griffin-Shirley et al., 2004); however, it is unknown if these data are representative of general child care providers from across the nation. Focus group participants reported that they wanted material to read after attending a workshop, observing a model, or watching a video, though, because reading materials often include helpful step-by-step instructions for implementing new practices. Watching an educational program (television, video, DVD) was included on the questionnaire because of accessibility and feasibility; whereas teachers may not be able to organize a workshop easily and quickly, most are able to go home and watch programs about behavior management (e.g., *Supernanny*, *Nanny 911*), for instance, with relative ease. About half of the focus group participants said watching a video is an effective training strategy for them, and about half disagreed; watching video clips has been used successfully, however, to train pre-service teachers (Bulgar, 2007) and practicum and internship site supervisors (Manzanares et al., 2004). Finally, being observed and receiving feedback was included on the questionnaire to address the proposed research questions. Examples of the use of feedback to have a positive impact on teachers' behavior were included in Chapter I.

The first question set was organized by practices: behavior management, curriculum/planning for skill development, promoting children's engagement/participation within activities, and working with other adults (parents, therapists/consultants, assistant teachers). The research-based Four Contexts of Teaching model (McWilliam, de Kruif, & Zulli, 2002) influenced the selection of practices.

Specifically, behavior management is a feature of the approach context (the teacher's general approach to interactions), curriculum and planning for skill development are part of the environmental context (the classroom ecology), promoting children's engagement and participation within activities is a feature of the interaction context (how the teacher continues an interaction once it has begun), and working with other adults is part of the planning context (teacher decisions that shape the classroom ecology). Behavior management was also included based on administrator feedback; administrators reported that effective classroom management (which they defined as arranging the classroom to promote engagement, using preventive techniques to avoid behavioral issues, and managing challenging behavior when it occurred) was what teachers most needed and wanted feedback about. Curriculum/planning for skill development was included because administrators listed individualizing the curriculum to each child's rate of development as a training need. They said that teachers wanted information about curriculum enhancement, integration, and implementation. The first question set was intended to answer Research Questions 1 [amount and perceived usefulness of feedback received] and 4 (strategies other than feedback used to train teachers about recommended practices).

The second question set asked about teachers' typical feedback experiences and ideal feedback experiences. The instructions were worded carefully based on information obtained from focus group participants; they perceived feedback as including administrative checks on paperwork completion, teacher-to-child ratios, and so on. Focus group participants pointed out that it was important to make a distinction between feedback about administrative issues and feedback about what teachers are actually doing

with children. Some of the individual items were created based on the research literature. For example, focus group participants did not report experience viewing graphs of their behavior; however, a review by Casey (2008) indicated that graphed feedback could be effective. An item was created to obtain data about teachers' receipt of graphed feedback and desire to receive it in the future. Other individual items were created because of administrator inquiry. For instance, both administrators assumed that verbal feedback was the most effective feedback mechanism but one wondered whether teachers would like to view themselves on videotape and evaluate their own performance. Items were created to assess teachers' perceptions of verbal feedback (to see if teacher and administrator perceptions were similar) and receipt of a videotape.

The majority of individual items in the second question set were created based on focus group participants' report of their typical and ideal feedback experiences. For example, when focus group participants discussed the characteristics of feedback providers, they insisted that it is important to "not get just criticism but also praise." They reported that the people who usually observe them "just want to stay up here [hand motion showing the top of a hierarchy] and keep you down here [hand motion showing the bottom of a hierarchy] so they don't give us encouragement." Participants felt that they did not get feedback for their own professional development; instead, they felt that administrators providing feedback "sit at the right hand of God" and come into the classroom to "chew us out." Comments such as these led to questionnaire items about the extent to which feedback providers currently provide praise and encouragement (Item R) in an effort to assist the individual in becoming a better teacher (Item V) and the extent to which feedback providers should do so in the future. Additional details about each item

in the second question set and its relationship to focus group data are presented in Appendix A. The second question set addressed Research Question 1 (whether teachers are receiving feedback, which would allow them to report their typical experience), including a sub-question about the usefulness of the feedback received (including perceived competence of the person providing it, extent to which changes were made based on feedback received, and so on).

The third question set asked about teachers' use of recommended practices. Each item was related to the practices used to organize the first question set (i.e., the practices related to the research-based Four Contexts of Teaching model; McWilliam et al., 2002). Item A was related to the questions about behavior management (the approach context), Item B was related to the questions about curriculum and planning (the environmental context), Item C was related to the questions about engagement (the interaction context), and Items D, E, and F were related to the questions about working with other adults (the planning context). The third question set was intended to answer Research Question 2 (the extent to which self-reported receipt of feedback is associated with self-reported use of recommended practices).

The fourth question set asked teachers to rank order training activities from most to least favorite. The training activities were the same ones used in the first question set: attending an in-service or workshop, reading a book or article, watching an educational program, and receiving feedback from another person. The question set was of interest because of a discrepancy that was identified during the focus groups: participants reported preferring workshops even though they admitted that many of them are not

useful. The fourth question set addressed Research Question 4 (how receipt of feedback compared with other strategies used to train teachers about recommended practices).

The fifth question set was used to collect demographic information. Items C and D were related to Research Question 3 (how receipt of feedback compares with teachers' educational level and degree in explaining the variance associated with the self-reported use of recommended practices). Item E addressed Research Question 1 (how the amount and usefulness of feedback differ by program type). Item G was also related to Research Question 1 (the relationship between amount of feedback received and presence of children with disabilities in the classroom). Other items were needed to describe the respondents or for federal reporting.

A 9-item assessment was developed to accompany the draft version of the questionnaire (see Appendix A). The purpose of the additional assessment was to gather information about how respondents experienced questionnaire completion and to obtain feedback about the draft version. Space was provided for respondents to provide comments.

### *Field Test*

To ensure the instrument was relevant and that items were easy to understand and complete, a field test was conducted in January 2008. The questionnaire (along with the additional assessment) was distributed to the 243 lead and assistant teachers employed by the partner sites. Anonymous drop boxes were left in central locations in each center and teachers were asked to complete the questionnaire and put it in a drop box within 8 business days. Incentives for participation were not provided. When drop boxes were

collected from centers, 128 completed questionnaires were retrieved, resulting in a response rate of 52.67% (97 questionnaires were retrieved from Program A [72.16% response rate] and 58 questionnaires were retrieved from Program B [39.73% response rate]).

The data analysis plan stipulated that participants who left more than 20% of the questionnaire items blank would not be included in the analyses; therefore, data provided by the 100 teachers who left less than 20% of the questionnaire items blank (55 teachers from Program A and 45 teachers from Program B) were used to inform questionnaire revision. (Data were analyzed for both the full dataset [lead and assistant teachers] and a partial dataset [the 56 lead teachers only, the population that would be targeted for the nationwide survey]. Results were almost identical, so data from the full dataset are reported, unless otherwise indicated.) The results of the analyses and their relationship to questionnaire revisions are described in the Revisions section.

### *Focus Group*

In February 2008, an additional focus group was conducted with three teachers from one of the partner sites. The purpose of the focus group was to assess teachers' interpretation of questionnaire items and obtain feedback about needed revisions. The partner site administrator selected the center with the highest field test response rate to participate. Flyers were distributed to all teachers within the selected center and those interested in participating contacted the author. Teachers were told they would receive a \$20 stipend for participation. A script was developed for approval by the IRB (see Appendix A), although permission was granted to explore topics that emerged from



teacher responses. The focus group was approximately one hour in length. Notes were taken and an audio recording was made. The information provided by the participants informed questionnaire revision, as can be seen in the section below.

### *Revisions*

The final step of the questionnaire development process was to revise the instrument. The goal was to improve items considered problematic by focus group participants and correct problems identified in the field test data. The questionnaire was condensed because 46.39% of field test participants reported that it was *somewhat true*, *true*, or *very true* that it had too many items, with which focus group participants agreed.

Focus group participants reported that the first question set did not need to be revised. They thought the practices were easy to understand and they did not think it was difficult to remember and report the number of times they participated in certain training activities. Analysis of the field test data revealed that the question set had a Cronbach's alpha value of .881. The number of times that respondents reported participating in training activities had an adequate range (for individual items, the respondents provided between 6 and 12 different responses). Respondents also used the full range of response options when rating usefulness. Based on suggestions from the Doctoral Committee, the content of the first question set was revised slightly. One training activity, watching educational programs, was removed and replaced with another training activity, watching an expert or consultant model a skill. The change was made so that receiving feedback was not the only training activity on the instrument intended to facilitate transfer to the classroom (see Hanft, Rush, & Shelden, 2004). The usefulness rating scale was also

revised. Based on suggestions from the Doctoral Committee and the work of Tang, Shaw, and Vevea (1999; showing that participants' confidence in their judgments is maximized using 6-point scales) and McDonald (2004; showing that 5- and 6-point scales provide the highest quality data, with 6-point scales recommended for use when a midpoint is undesirable), the usefulness rating was expanded from a 4-point to a 6-point scale.

During the focus group, teachers suggested major revisions to the second question set. They said there were too many items and it was difficult to think about both typical and ideal practice; they wanted to rate each item once. When field test data were entered into an electronic database it became clear that teachers did not understand how to report a discrepancy between typical and ideal feedback practices; many teachers rated one column only (i.e., either typical or ideal). Analysis of field test data indicated that the mean discrepancy for all items was 0.86 ( $SD = 0.82$ ) with a range from 0.50 (Item H) to 1.41 (Item M). Of the 24 items, 19 (79.17%) had a mean discrepancy less than 1.0. These data do not compare well with data obtained from the *Families in Natural Environments Scale of Service Evaluation* (FINESSE; McWilliam, 2000), a discrepancy tool for which a database of 455 entries is available. The mean discrepancy for FINESSE data is larger; it is 1.14 ( $SD = 0.83$ ) with a range from 0.61 to 1.73. Of the 17 items, only 5 (29.41%) have a mean discrepancy less than 1.0. Although the Cronbach's alpha value for the draft version of the questionnaire was adequate (.947), these data indicate that the discrepancy did not work as planned. The second question set was revised by (a) narrowing the number of items from 24 to 16 by removing items that were addressed elsewhere (e.g., receiving feedback about behavior management, which was addressed in Question Set 1) or were redundant (e.g., receiving verbal feedback in 5 minutes or less, receiving verbal

feedback during a 30-minute meeting, and receiving verbal feedback in a private location), (b) asking teachers to report typical practice only, and (c) asking teachers to report the number of times they received the feedback described in each item rather than rating how strongly they agreed with statements about receipt of feedback.

Focus group participants reported that the third question set was easy to understand and complete. They reported using ratings of 2 and 4 (for which there were no anchor statements), which was confirmed when field test data were analyzed (ratings of 2 and 4 comprised 24.04%, 38.83%, 51.92%, 55.77%, 61.86%, and 39.80% of responses for Items A through F, respectively). Field test data indicated that the third question set had low internal consistency (Cronbach's alpha = .481), though, so revisions were made.

All items in the third question set were expanded from a 5-point to a 7-point scale to increase the quality of the data obtained (McDonald, 2004). For Item A, responses on the field test ranged from ratings of 2 to 5 (the range was 3 to 5 when only lead teacher data were analyzed); therefore, the anchor statement for a rating of 1 was deleted and the item was rescaled. Item C was also rescaled when the Doctoral Committee suggested that the anchor statements were not ordinal. The continuum of response options for each item was based on the scaling used in the Early Childhood Environment Rating Scale, Revised Edition (ECERS-R; Harms, Clifford, & Cryer, 1998) and knowledge of recommended practices (Sandall et al., 2000). The bottom of the continuum had items related to an ECERS-R rating of 1 (*inadequate*; e.g., most supervision is punitive, adults are not responsive or involved with children, much of the day is spent in unsupervised free play, parents are not involved in the program, and staff duties are not shared fairly) while the top of the continuum had items related to an ECERS-R rating of 7 (*excellent*; e.g.,

materials are rotated to maintain interest, adults help enhance children's play, concepts are introduced in response to children's interests or need to solve a problem, supervision is used as an educational interaction, and classroom staff have shared planning time). The middle of the continuum had items related to ECERS-R ratings of 3 (*minimal*; e.g., some information is shared between parents and teachers during conferences or similar activities) and 5 (*good*; e.g., staff use non-punitive discipline methods, such as directing a child from an unacceptable to an acceptable activity).

The fourth question set was deleted. Focus group participants reported that it was easy to understand and the field test data did not indicate that it was a problematic set. As stated previously, however, field test and focus group participants suggested that the instrument be condensed and focus group participants indicated that asking about training activities in both the first and fourth questions sets was repetitive. Based on Doctoral Committee suggestions and the fact that the fourth question set was not crucial for answering any of the research questions, the decision was made to remove it from the instrument.

In general, focus group participants thought the fifth question set was easy to understand and appropriate. One participant questioned why reporting race was necessary (although only six participants left the item blank), and the focus group participants agreed that including a statement such as "We are asking this for federal reporting purposes" would help clarify the item. Two additional items were added to ensure that center directors distributed the instrument to the appropriate teachers (i.e., lead teachers of preschoolers). The new items asked respondents to report whether they were lead or assistant teachers and whether they taught infant/toddlers, 3-year-olds, 4-year-olds, 5-

year-olds, or mixed-age preschoolers. Based on suggestions from the Doctoral Committee, one item was changed so teachers could report the type of center they worked in (Head Start, accredited by the National Association for the Education of Young Children, or neither) rather than reporting that it was or was not affiliated with Head Start. Finally, the items about the length of time that respondents had been teaching were revised so teachers could report the actual number of years instead of categorizing their experience.

The revised version of the questionnaire consisted of four question sets (one of which was demographics) and was three pages long when printed double sided. It included a space for respondents to provide their contact information (optional). The revised version of the instrument can be found in Appendix B.

### Nationwide Data Collection

The second step of the study was to complete nationwide data collection. Procedures for selecting participants and contacting them are described below. Finally, data management and analysis are described.

#### *Participants*

Teachers of 3-, 4-, and 5-year-olds were recruited to participate. National mailing lists were compiled for Head Start centers and centers accredited by the National Association for the Education of Young Children (NAEYC). These organizations were targeted because they represent two of the largest national organizations with program performance standards, ensuring that a majority of participating teachers would be

employed by programs that had met minimal requirements for program quality. The Head Start organization has nationwide performance standards in three major areas: early childhood development and health services, family and community partnerships, and program management and operation. The performance standards are monitored and updated on a regular basis to ensure that all Head Start programs are providing comprehensive service based on the latest knowledge from researchers and health professionals. The NAEYC organization has nationwide performance standards in four areas: children (relationships, health, curriculum, assessment of child progress, and teaching), teaching staff, partnerships (family and community relationships), and administration (physical environment and leadership and management). The NAEYC accreditation process is nationwide and voluntary, available to programs serving children from birth through kindergarten. Accredited programs have successfully completed a self-assessment; met licensing, staffing, health, and safety requirements; and fulfilled the standards listed above during an on-site visit (e.g., positive adult-child relationships, implementation of a curriculum that addresses all areas of child development, use of effective teaching practices and ongoing assessment, employment of qualified teachers, and so on).

The Head Start mailing list was compiled from the Head Start Program Directory (Department of Health and Human Services, Administration for Children and Families, n.d.). Addresses were screened as they were extracted to ensure that duplicates did not appear on the final list of 14,533 centers. The NAEYC mailing list was compiled from the NAEYC-Accredited Program Search (National Association for the Education of Young Children, n.d.). Of the 10,401 addresses that were originally extracted, 227 were

removed later because they were duplicates. An additional 45 addresses were removed because the center name indicated that preschoolers were not served (e.g., ABC Infant Center, ABC Kindergarten Program). Finally, the Head Start and NAEYC mailing lists were compared to ensure that centers did not appear on both. After removing 1,196 Head Start centers, the final NAEYC mailing list consisted of 8,933 centers.

The goal was to be able to detect small effect sizes while maintaining statistical power. Based on Cohen (1992), it was determined that a minimum of 547 completed questionnaires needed to be collected to meet this goal. Using a conservative 30% estimate for expected response rate, it was determined that 1,824 teachers needed to be contacted and asked to participate in the study. Although contacting 1,824 teachers in the 14,533 Head Start and 8,933 NAEYC-accredited centers nationwide may not seem representative of program practices in the country, the statistical power and sampling methods (described below) were sufficient to ensure that a representative sample was obtained (W. Lambert, personal communication, March 23, 2007).

Each mailing list was divided into the nine geographic regions used in the United States Census. Data about the number of children under 5 years of age in each region (United States Census Bureau, Population Division, 2005) were used to calculate a percentage. The percentage of children under 5 years of age was then multiplied by the total 1,824 centers to be contacted to calculate the number of centers that should be solicited in each geographic region. The percentage of children less than 5 years of age in each region and number of centers solicited can be found in Table 1.

Table 1. Solicited Centers by Geographic Region

Census Region	Children Under 5 Years	Centers Solicited
Pacific	16.84%	307
Mountain	7.04%	128
West North Central	6.70%	122
East North Central	16.00%	292
West South Central	12.31%	225
East South Central	5.95%	109
South Atlantic	17.45%	318
Middle Atlantic	13.20%	241
New England	4.51%	82

The only inclusion criteria were that teachers (a) be employed by the center for a minimum of 12 months at the time of questionnaire completion and (b) be employed in a classroom serving 3-, 4-, or 5-year-olds. The first inclusion criterion was necessary because items asked about performance feedback received in the past 12 months; employment in a different field or in a center with different supervision and feedback practices for part of the 12-month period would skew the data. There were no exclusion criteria related to total number of children in the program or classroom, number of adults staffing each classroom in the program, or curriculum used. In addition, there was not an exclusion criterion related to number of children with disabilities in the center or classroom. Although the study addressed recommended practices for children with disabilities, the strategies considered recommended practice were not specific to children



with disabilities and could benefit any child. Because policies about inclusion specify that children with disabilities can and should be served in Head Start programs and community child care programs, it was important to include these programs in the study even if a child with disabilities was not enrolled.

### *Instrumentation*

As stated previously, the final version of the questionnaire consisted of four question sets and can be found in Appendix B. The rationale for the question sets and items was explained in the previous section. Here, information about the purpose of each question set and the number of items and response options is provided.

The first question set, named Frequency and Usefulness of Training Activities, asks about the frequency and usefulness of training activities. There are 16 items; for each, teachers report the number of times they participated in each of the training activities in the past year and how useful they were. Usefulness is rated on a 6-point scale from *not at all useful* (1) to *extremely useful* (6). There is also a *not applicable* option, to be used when teachers report participating in zero training activities. The question set can be divided into four training topics (behavior management, following lesson plans, promoting children's engagement, and working with adults) and four training methods (in-service/workshop, reading a book or article, watching an expert/consultant, and receiving feedback after being observed).

The second question set, named Frequency of Feedback, asks about teachers' experience receiving feedback. *Feedback* is defined as information received from anyone (supervisor, consultant, and so on) about classroom practices, not administrative details.

There are 16 items; for each, teachers report the number of times they received the specific type of feedback in the past year. Items ask about feedback source (e.g., how many times the teacher received feedback about his or her classroom practices from a consultant), content (e.g., how many times the teacher received feedback about a child with challenging behavior or disabilities), and mechanism (e.g., how many times the teacher received graphed feedback).

The third question set, named Use of Recommended Practices, asks about the teacher's classroom and teaching style. Each of the six items is related to the training topics included in the first question set. The first item is about behavior management; the second item is about following lesson plans; the third item is about promoting children's engagement; and the fourth, fifth, and sixth items are about working with adults (families, other teachers, and therapists/consultants, respectively). Each item is rated on a 7-point scale with item-specific statements at the first, third, fifth, and seventh anchors. The second, fourth, and sixth anchors are to be used when two statements describe a teacher (e.g., sometimes the teacher does one and sometimes the teacher does the other). In general, ratings are scaled from least recommended (1) to most recommended (7) practice.

The fourth question set asks teachers for their demographic information, including the highest level of education they have completed, whether or not their degree was related to early childhood education, the number of years they have been teaching, their experience working with children with disabilities, the number of adults working in their classroom, the type of center they work in (Head Start versus NAEYC accredited), and their race/ethnicity. As stated previously, the question set also includes items related to

the inclusion criteria; specifically, whether respondents are lead or assistant teachers, the age group they work with for the majority of the day, and the amount of time they have been in their current teaching position. In addition, teachers are asked how often they would like to receive feedback about their performance to provide context for their responses in the other question sets. Each item has two (*not true* versus *true*, *lead teacher* versus *assistant teacher*) to seven (education from *high school* to *doctoral degree*) response options.

### *Procedure*

In general, the Total Design Method (Dillman, 1978) was used to structure data collection. Efforts were made to obtain a representative sample, and potential participants were solicited multiple times. Details about each mailing are provided below, in addition to descriptions of the prize drawing, data entry, and data analysis.

*First mailing.* The mailing addresses for all 14,533 Head Start and 8,933 NAEYC-accredited centers were listed in Excel spreadsheets. Using the random.org website, random row numbers were generated for each region and each spreadsheet. For example, for the East North Central region, 146 random numbers were generated between the values of 4,487 (the first row of the Head Start Excel spreadsheet in which East North Central centers were listed) and 6,889 (the last row of the Head Start Excel spreadsheet in which East North Central centers were listed). An additional 146 random numbers were generated between the values of 2,322 (the first row of the NAEYC Excel spreadsheet in which East North Central centers were listed) and 3,735 (the last row of the NAEYC Excel spreadsheet in which East North Central centers were listed). This procedure

resulted in 292 addresses being selected for the East North Central region, half from the Head Start mailing list and half from the NAEYC mailing list. The method was repeated for each region and resulted in a geographically representative sample of the entire population of Head Start and NAEYC-accredited centers (W. Lambert, personal communication, March 23, 2007).

Questionnaires were sent to the 1,824 randomly-selected addresses. The goal was to recruit one teacher from each center to participate; however, there was concern that having the director randomly select one teacher to participate might be coercive. The solution, therefore, was to send three questionnaires to each center and randomly select one response per center to be used for data analysis. A cover letter explained the purpose of the study and asked the center director to allow teachers of 3-, 4-, and 5-year-olds to participate. The director was asked to give a questionnaire to each qualifying teacher that had been employed for 12 months or more. Contact information was provided so directors could request additional questionnaires, if needed. Each questionnaire was assigned a unique identification number so responding and non-responding centers could be tracked. The purpose of this procedure was to (a) ensure that only one teacher per center was represented in the final database so data represented typical practices across centers instead of being skewed by high rates of participation in large centers and (b) ensure that teachers were randomly selected so data were not obtained from only those teachers who responded first (i.e., those who were most willing to volunteer).

Three teachers per center received a cover letter, the questionnaire, and a stamped return envelope from the center director, assuming the director was willing to have them participate. The cover letter explained that providing one's name and address was

optional; if respondents chose to provide the information they were eligible to receive a \$25 gift card. Respondents were assured that provision of name and address affected prize eligibility only; responses were not linked to names. The questionnaire could be completed and returned without providing one's name and address. The cover letters to directors and teachers can be found in Appendix B.

*Second mailing.* Four weeks after the first mailing, when response rates began to decline, a second mailing was prepared. The number of responding centers per region (i.e., those with at least one returned questionnaire) was divided by the total number of responses to calculate the percentage of responses by region. The calculated percentages were then compared to the percentage of children less than 5 years of age in each region. In four regions (Mountain, West North Central, East North Central, and East South Central), the percentage of responses was greater than the percentage of children under 5 years of age; therefore, the regions were not targeted for the second mailing.

Only those regions with a lower response rate than the percentage of children under 5 years were targeted for the second mailing. In the Pacific, West South Central, South Atlantic, Middle Atlantic, and New England regions, there were 1,128 non-responding centers. The difference between the percentage of responses received and the percentage of children under 5 years of age was calculated for each of the five regions and divided by the sum of all differences. The resulting percentage was multiplied by the 1,128 non-responding centers to calculate the number of centers that should be targeted in each region in the second mailing. Finally, the number of centers to be targeted per region was divided by two because budget limitations stipulated that a randomly-selected

50% of non-respondents be targeted for the second mailing. The distribution of responses and number of centers targeted for the second mailing can be found in Table 2.

Table 2. Distribution of Responses by Region and Number of Centers Solicited in Second Mailing

Census Region	Children Under 5	Response Distribution	Centers Solicited
Pacific	16.84%	11.84%	127
Mountain	7.04%	7.89%	0
West North Central	6.70%	14.47%	0
East North Central	16.00%	21.05%	0
West South Central	12.31%	9.21%	79
East South Central	5.95%	14.47%	0
South Atlantic	17.45%	7.89%	243
Middle Atlantic	13.20%	11.84%	35
New England	4.51%	1.32%	81

The second mailing was identical to the first. Each of the 565 centers received a director’s letter (slightly modified to acknowledge that similar information should have been received four weeks earlier) and three research packets consisting of a letter to the teacher, a questionnaire, and a return envelope.

*Third mailing.* Five weeks after the second mailing, when response rates began to decline again, a third mailing was prepared. As with the second mailing, response rates were calculated per geographic region and compared to the percentage of children less

than 5 years of age living in the region. In six regions (Mountain, West North Central, East North Central, West South Central, East South Central, and New England), the percentage of responses was greater than the percentage of children under 5 years of age. In the remaining three regions (Pacific, South Atlantic, and Middle Atlantic), the response rate was lower than desired. See Table 3 for detailed information about response rates.

In all nine regions there were 1,638 non-responding centers. If 50% of non-responding centers from the three regions with low response rates were targeted (as was done for the second mailing), only 398 centers would have received the third mailing. Furthermore, centers in the Mountain, West North Central, East North Central, and East South Central regions would have received the first mailing, only, because their response rates were not low enough to warrant inclusion in the second or third mailing. Because the ultimate goal was to solicit as many centers as possible to get the response rate as high as possible, contacting a limited number of centers in the third mailing and failing to send more than one mailing to some regions was not logical. All nine regions were included in the third mailing.

In each region, the total number of non-responding centers was divided by two to determine how many centers to solicit in the third mailing (budget limitations again stipulated that a randomly-selected 50% of non-respondents be targeted for the mailing). The number of non-responding centers from the NAEYC list was then calculated. (The third mailing occurred at the end of the school year. Because many Head Start centers close during the summer, their inclusion on the mailing list would not have been profitable. Only centers from the NAEYC list were targeted.) In seven regions, the

number of non-responding NAEYC centers was less than the number of centers to be solicited. The difference between the planned number to be solicited and the actual number of centers available was no more than five centers in any region. In those seven regions, 100% of the non-responding centers from the NAEYC list were solicited. In the other two regions, the appropriate number of non-responding NAEYC centers was randomly selected. The number of centers targeted in the third mailing can be found in Table 3. Each of the 788 solicited centers received a director’s letter and three research packets, as in the first and second mailings.

Table 3. Distribution of Responses by Region and Number of Centers Solicited in Third Mailing

Census Region	Children Under 5	Response Distribution	Centers Solicited
Pacific	16.84%	13.98%	141
Mountain	7.04%	8.60%	50
West North Central	6.70%	8.06%	54
East North Central	16.00%	19.35%	126
West South Central	12.31%	13.44%	91
East South Central	5.95%	8.60%	44
South Atlantic	17.45%	14.52%	139
Middle Atlantic	13.20%	8.60%	109
New England	4.51%	4.84%	34



*Selection of prize winners.* As completed questionnaires were received, respondents' contact information was entered in an Excel database, if provided. Prize winners were randomly selected four weeks after the third mailing, when response rates declined. The random.org website was used to generate 16 random numbers between 2 and 298, representing the row numbers in the Excel spreadsheet in which contact information was listed. Each of the 16 randomly-selected prize winners received a \$25 gift card by mail.

*Data entry.* As completed questionnaires were received, the author entered 100% of the data into a web-based data management system. After data collection ended, a research assistant randomly selected 42 of the completed questionnaires (10% of the sample of 418) and entered the data into the same web-based data management system. A data comparison tool was used to check the reliability of the author's data entry. The tool compared data entered by the author and the research assistant and displayed differences; hard copies of the questionnaires were examined to determine if differences were due to errors in the author's data entry. Exact agreement was obtained for 37 (88.10%) of the questionnaires. None of the differences in the remaining questionnaires were due to errors in the author's data entry. Because the author's data entry was reliable, data analysis began without checking additional questionnaires.

*Data analysis.* Data from 418 respondents were exported from the web-based data management system to SPSS 15.0 for Windows. Cleaning the database consisted of several steps: removing data provided by respondents who did not fit the inclusion criteria, removing data provided by respondents who left 20.00% or more of the

questionnaire items blank, and randomly selecting one respondent per center to include in the final database. Details about each step in the process are provided below.

The first step in cleaning the database was to remove data provided by respondents who did not fit the inclusion criteria. As the author received completed questionnaires and entered them into the web-based data management system, she maintained a list of respondents who indicated they were an assistant teacher, taught infants/toddlers, or had been in their current teaching position for less than one year. Data from the 70 respondents on the list were removed from the database, reducing the sample size to 348. Descriptive statistics were obtained; as expected, all remaining respondents were lead teachers, taught preschoolers, and had been in their current teaching position for one year or more.

The second step in cleaning the database was to remove data provided by respondents who left 20.00% or more of the questionnaire items blank. The number of missing responses was calculated by programming SPSS to count the number of system- and user-missing values within each case. The percentage of missing responses was calculated by programming SPSS to divide the number of missing responses by 66 (the number of respondent-provided variables within each case) and convert the result to a percentage. The 10 respondents who left 20.00% or more of their responses blank were removed from the database, reducing the sample size to 338.

Finally, one respondent per center was randomly selected for inclusion in the final database. This process resulted in the removal of 100 respondents from the database, making the final sample size 238. These 238 respondents represented lead teachers in preschool classrooms, employed for at least one year by mutually exclusive centers.

## CHAPTER III

### RESULTS

#### Description of Respondents

Table 4. Respondents' Distribution by Census Region ( $N = 238$ )

Census Region	Children Under 5	Respondents
Pacific	16.84%	15.55%
Mountain	7.04%	6.72%
West North Central	6.70%	7.98%
East North Central	16.00%	18.07%
West South Central	12.31%	11.34%
East South Central	5.95%	8.40%
South Atlantic	17.45%	17.23%
Middle Atlantic	13.20%	10.08%
New England	4.51%	4.62%

The 238 respondents represented lead teachers in preschool classrooms who had been employed for at least one year. They were from mutually exclusive centers that accounted for 13.05% of the total number of centers solicited. Although the response rate was low, the distribution of respondents by census region closely approximated the percentage of children under 5 years of age residing in each region (see Table 4). The

correspondence between the distribution of respondents and the census data indicates that the respondents were geographically representative,  $\chi^2(8, N = 200) = .935, p = .999$ .

The respondents had been teaching for a mean of 13.70 years ( $SD = 8.49$ , range = 1 year to 35 years) and had been in their current teaching position for a mean of 7.82 years ( $SD = 6.19$ ). Most respondents had one other adult in their classroom for the majority of the day ( $n = 126$ ; 52.94%); only 16 respondents (6.72%) worked alone. Children with identified disabilities were enrolled in the majority of the classrooms ( $n = 186$ , 78.15%) and only 7 respondents (2.94%) reported that they had no experience working with children with disabilities. As can be seen in Table 5, the majority of respondents had a 2-year or 4-year college degree. A majority of respondents ( $n = 188$ ; 78.99%) reported that their degree was related to early childhood education.

Table 5. Highest Level of Education Completed by Respondents ( $N = 238$ )

Highest Level of Education Completed	Frequency	Percentage
High school	4	1.68
Some college	32	13.45
2-year college degree	59	24.79
4-year college degree	72	30.25
Some graduate school	39	16.39
Master's degree	32	13.45
Doctoral degree	0	0.00

According to the latest available Biennial Report to Congress (United States Department of Health and Human Services, Head Start Bureau, 2005), most Head Start teachers have 2-year or 4-year college degrees related to early childhood education, as well. Table 6 shows educational data for the Head Start teachers described in the Biennial Report to Congress and the respondents in the current study who reported being Head Start teachers ( $n = 95$ ; 39.92%). As can be seen, the educational level of the majority of the Head Start teachers in the current study was representative of Head Start teachers nationwide, although teachers with some graduate school experience or graduate degrees were overrepresented,  $\chi^2(5, N = 192) = 20.425, p = .001$ .

Table 6. Educational Representativeness of Head Start Teachers ( $n = 95$ )

Highest Level of Education	Biennial Report	Current Study
High school	--	1.05%
Some college	22.01%	11.58%
2-year college degree	32.87%	32.63%
4-year college degree	31.41%	29.47%
Some graduate school	--	13.68%
Graduate degree	4.73%	11.58%

Table 7 shows educational data for NAEYC members (L. Halgunseth, personal communication, August 12, 2008) and the teachers in the current study who reported working in NAEYC-accredited centers ( $n = 145$ ; 60.92%). The educational level of NAEYC members and the teachers in the current study from NAEYC-accredited centers

appear to be different,  $\chi^2 (5, N = 200) = 30.589, p = .001$ ; however, it should be noted that not all teachers who work in NAEYC-accredited centers are NAEYC members (meaning the comparison is not completely accurate). In addition, NAEYC members include professionals other than teachers (e.g., professors, researchers, program directors) and only 38.70% of members report their educational level (L. Halgunseth, personal communication, August 12, 2008); 100.00% of the respondents in the current study reported their educational level.

Table 7. Educational Representativeness of Teachers in NAEYC-Accredited Centers  
( $n = 145$ )

Highest Level of Education	NAEYC Members	Current Study
High school	5.50%	2.07%
Some college	8.60%	15.17%
2-year college degree	13.10%	21.38%
4-year college degree	33.70%	28.28%
Some graduate school	0.00%	15.86%
Graduate degree	39.00%	17.24%

Table 8 reports the ethnicity and race of the respondents, whereas Table 9 shows racial and ethnic data for the Head Start teachers described in the Biennial Report to Congress (United States Department of Health and Human Services, Head Start Bureau, 2005) and the Head Start teachers in the current study. Finally, Table 10 reports racial and ethnic data for teachers who are NAEYC members (L. Halgunseth, personal

communication, August 12, 2008) and the teachers in the current study who reported working in NAEYC-accredited centers. As can be seen, the respondents from NAEYC-accredited centers were racially and ethnically representative of NAEYC members nationwide,  $\chi^2 (6, N = 201) = 5.353, p = .499$ , whereas African American Head Start teachers in the current study were underrepresented and Caucasian Head Start teachers were overrepresented,  $\chi^2 (6, N = 200) = 30.017, p = .001$ .

Table 8. Racial/Ethnic Data for Respondents ( $N = 238$ )

Race/Ethnicity	Frequency	Percentage
American Indian/Alaska Native	10	4.20
Asian	2	0.84
Black/African American	21	8.82
Hispanic/Latino	19	7.98
Native Hawaiian/Other Pacific Islander	0	0.00
White	178	74.79
Other	5	2.10
Not reported	3	1.26

Table 9. Racial/Ethnic Representativeness of Head Start Teachers ( $n = 95$ )

Race/Ethnicity	Biennial Report	Current Study
American Indian/Alaska Native	4.17%	7.14%
Asian	1.82%	0.00%

Table 9, Continued

Race/Ethnicity	Biennial Report	Current Study
Black/African American	28.88%	9.52%
Native Hawaiian/Other Pacific Islander	0.92%	0.00%
White	45.46%	76.19%
Other	5.24%	4.76%
Not reported	13.50%	2.38%

Table 10. Racial/Ethnic Representativeness of Teachers in NAEYC-Accredited Centers  
(*n* = 145)

Race/Ethnicity	NAEYC Members	Current Study
American Indian/Alaska Native	0.00%	2.76%
Asian	3.00%	1.38%
Black/African American	8.50%	8.97%
Hispanic/Latino	5.00%	4.83%
Native Hawaiian/Other Pacific Islander	0.00%	0.00%
White	82.00%	80.00%
Other	0.00%	0.69%
Not reported	1.5%	1.38%

A summary of the demographic information presented above is listed in Table 11, but it is sorted by the types of centers in which respondents reported working. The



column labeled *Head Start* describes the 95 respondents who reported working in either accredited or non-accredited Head Start centers. *Non-Head Start* describes the 140 respondents who reported working in NAEYC-accredited centers (that were not Head Start affiliated) or centers that were neither accredited nor Head Start affiliated. The column labeled *Accredited Before 2006* describes the 107 respondents who reported working in centers that were accredited before NAEYC adopted new accreditation criteria, whether the centers were Head Start affiliated or not. Finally, *Accredited After 2006* describes the 38 respondents who reported working in centers (Head Start or non-Head Start) that were NAEYC accredited after the new accreditation criteria were adopted. As can be seen, level of education differed between Head Start and non-Head Start teachers (most Head Start teachers had 2-year college degrees whereas most non-Head Start teachers had 4-year college degrees); the difference is addressed further in the regression analyses that follow. Race/ethnicity also differed (the majority of respondents were White, followed by Hispanic/Latino in the Head Start group and Black/African American in the non-Head Start group), but race/ethnicity was not expected to predict teachers' self-reported use of recommended practices so the difference did not impact the analyses that follow. For the teachers from NAEYC-accredited centers, experience and education differed for those that worked in centers accredited before 2006 versus after 2006; however, time of accreditation was not used as a predictor in the regression models below so the difference was not explored.

Table 11. Demographics for Head Start Versus Non-Head Start Teachers and Teachers From Centers That Were Accredited Before 2006 Versus After 2006

Demographic Variables	Head Start	Non-Head Start	Accredited Before 2006	Accredited After 2006
Years Teaching, <i>M (SD)</i>	12.24 (8.10)	14.74 (8.70)	15.52 (8.74)	11.74 (8.14)
Years in Current Job, <i>M (SD)</i>	6.84 (5.71)	8.51 (6.48)	9.10 (6.78)	6.95 (5.48)
Percentage Teaching				
Children With Disabilities	85.26	74.29	71.96	86.84
Percentage With				
High School Degree	1.05	2.14	1.87	2.63
Some College	11.58	14.29	14.02	18.42
2-Year Degree	32.63	20.00	21.50	21.05
4-Year Degree	29.47	30.00	27.10	31.58
Some Graduate School	13.68	18.57	16.82	13.16
Master's Degree	11.58	15.00	18.69	13.16
Percentage				
American Indian/ Alaska Native	6.32	2.86	2.80	2.63
Asian	0.00	1.43	1.87	0.00
Black/African American	8.42	9.29	7.48	13.16
Hispanic/Latino	11.58	5.00	4.67	5.26
White	67.37	80.00	80.37	78.95
Other	4.21	0.71	0.93	0.00

## Description of Predictors and Outcomes

The first question set, Frequency and Usefulness of Training Activities, asked respondents about the number of times they participated in certain training activities and the usefulness of the training activities. Data from the question set were used to predict teachers' self-reported use of recommended practices. The internal consistency of Frequency and Usefulness of Training Activities was .752. The second question set, Frequency of Feedback, asked respondents about the frequency with which different types of feedback were received. Data from the second question set were also used to predict teachers' self-reported use of recommended practices and had a Cronbach's alpha value of .835. The third question set, Use of Recommended Practices, asked about respondents' self-reported use of recommended practices related to behavior management strategies, use of lesson planning, promotion of engagement, and the method used to work with other adults (families, other teachers, and therapists/consultants). Items from the third question set were used as outcome variables. As with the draft version of the questionnaire, Use of Recommended Practices had low internal consistency ( $\alpha = .577$ ).

Data from the third question set, Use of Recommended Practices, were reviewed to assess whether the low internal consistency was likely because of items not representing a single construct or other issues (e.g., lack of variability in the data). As can be seen in Table 12, the full range of response options was used for all items except one (responses for Item D ranged from 2 to 7). The general pattern across respondents was for response frequencies to increase across the first six response options, with a possible decline in the seventh response option. Notable exceptions include Items E and F. The response frequency for the fifth response option in Item E and the third response option

in Item F was lower than expected; however, the scale anchors were presented in a logical sequence so reordering the responses for the items would not have been helpful. Correlations among the items were calculated and ranged from .039 (Items A and F) to .357 (Items B and C). As can be seen, the items were skewed. The correction for skewness is explained below.

Table 12. Response Frequencies and Skewness for Use of Recommended Practices (Question Set 3) Items

	Item A	Item B	Item C	Item D	Item E	Item F
Frequency of “1”	1	7	3	0	7	14
Frequency of “2”	1	7	2	1	10	18
Frequency of “3”	2	3	5	3	28	7
Frequency of “4”	15	21	12	14	36	19
Frequency of “5”	98	27	58	38	19	33
Frequency of “6”	104	84	114	117	76	62
Frequency of “7”	16	89	42	65	54	72
Skew	-1.049	-1.623	-1.599	-1.058	-0.715	-1.046
<i>SE</i> Skewness	.158	.158	.158	.158	.160	.162

Because the data patterns in Use of Recommended Practices were not unusual and the items were not highly correlated, the low internal consistency was presumed to be caused by the lack of a single construct in the question set; therefore, single-item outcomes were used for Use of Recommended Practices instead of calculating a mean

score across items (e.g., mean use of recommended practices). Single-item outcomes were appropriate because one specific practice was measured in each item (e.g., behavior management in Item A versus all recommended practices) and scale anchors were behaviorally specified; therefore, the area of measurement was sufficiently narrow (Ainley & Patrick, 2006; Bergkvist & Rossiter, 2007; Wanous, Reichers, & Hudy, 1997). The single-item outcomes were used as outcome variables in regression analyses, describing teachers' self-reported use of recommended practices related to behavior management (Item A), lesson planning (Item B), promotion of engagement (Item C), working with families (Item D), working with other teachers (Item E), and working with specialists (Item F).

As stated above, the general pattern across respondents was for response frequencies in Use of Recommended Practices, the third question set, to increase across the first six response options, with a possible decline in the seventh response option. As was seen in Table 12, each item was skewed to a significant degree (i.e., the amount of skew was more than the value of two or more standard errors of skewness; Brown, 1997, April); therefore, items were transformed. Exponential distributional transformations were used because they are the most common (Rummel, 1970). The same exponential distributional transformation did not need to be used for each variable; instead, the exponent chosen for each item was the one associated with the skew statistic closest to zero. For Items A, B, and C, the exponent used was 2, 5, and 3, respectively. Recalculated skew statistics ranged from -0.071 (Item A) to 0.032 (Item C). For Items D, E, and F, the exponent used was 3, 3, and 4, respectively. Recalculated skew statistics

ranged from -0.111 (Item D) to 0.089 (Item F). The exponential distributional transformation of each item was used in the analyses described below.

Two of the most important predictors, *Amount Feedback – Practices* (the number of times the respondent received feedback about recommended practices) and *Amount Feedback – Other* (the number of times the respondent received specific types of feedback about any practice), were created from multiple items. A principal components analysis (PCA) was completed using varimax rotation and Kaiser normalization. Inspection of scree plots, associations over .40, and eigenvalues over 1.00 (Kaiser, 1970) suggested that three variables about the amount of feedback respondents reported receiving would be most appropriate; however, the grouping of variables according to the PCA results made no conceptual sense. Instead of using three feedback variables, the two variables named above were used because the internal consistency of each was sufficiently high (.800 and above).

Some of the other predictors used in the analyses were created by calculating the sum or mean of multiple items, too. All nine of the predictors, their calculation, and associated Cronbach's alpha value are listed in Table 13. As can be seen, Cronbach's alpha was low for *Observed a Model*, implying that there was a lot of variability in respondents' answers. For example, a standard deviation of 23.10 was calculated for the number of times teachers reported observing a model work with other adults ( $M = 3.37$ ). In comparison, teachers reported observing someone model the use of behavior management strategies, the use of lesson planning, and the promotion of engagement 1.69 ( $SD = 6.86$ ), 1.03 ( $SD = 2.42$ ), and 1.33 ( $SD = 3.10$ ) times, respectively.

Table 13. Description of Created Predictors

Predictor	Composition	$\alpha$
Amount Feedback – Practices	Sum of feedback items in Frequency and Usefulness of Training Activities (the first question set); number of times respondent received feedback about recommended practices	.800
Amount Feedback – Other	Mean of items in Frequency of Feedback (the second question set); number of times respondent received specific types of feedback	.835
Usefulness of Feedback	Mean rating given for usefulness of feedback about recommended practices	.778
Number of Workshops	Sum of workshop items in Frequency and Usefulness of Training Activities; number of times respondent attended a workshop about recommended practices	.810
Usefulness of Workshops	Mean rating given for usefulness of workshops	.714
Number of Readings	Sum of reading items in Frequency and Usefulness of Training Activities; number of times respondent read a book or article about recommended practices	.701
Usefulness of Readings	Mean rating given for usefulness of readings	.650

Table 13, Continued

Predictor	Composition	$\alpha$
Observed a Model	Sum of model items in Frequency and Usefulness of Training Activities; number of times respondent observed someone model the use of recommended practices	.113
Usefulness of Models	Mean rating given for usefulness of models	.764

#### Self-Reported Receipt of Feedback

The first research question asked whether teachers were receiving feedback about their use of recommended practices. In general, teachers were receiving feedback at the time of questionnaire completion; 63.87% of respondents reported receiving feedback about behavior management in the past year, 59.24% reported receiving feedback about lesson planning, 52.10% reported receiving feedback about engagement, and 49.16% reported receiving feedback about working with adults (families, other teachers, and specialists). The amount of feedback that teachers reported receiving, however, was quite low.

Of the respondents who reported receiving feedback, the mean number of times they received information about their performance in the past year was 3.18 ( $SD = 4.50$ ), 3.78 ( $SD = 6.24$ ), 3.35 ( $SD = 5.23$ ), and 2.86 ( $SD = 2.88$ ) for behavior management, lesson planning, engagement, and working with adults, respectively. The mode for number of times feedback was received about each of the topics, though, was 1 ( $n = 45$ , or 29.61%, for behavior management;  $n = 45$ , or 31.91% for lesson planning;  $n = 37$ , or



29.84%, for engagement;  $n = 49$ , or 41.88%, for working with adults). It is unknown whether the feedback events were mutually exclusive; in other words, the data do not provide information about whether teachers who reported that feedback was received one time about each recommended practice actually received feedback four times (once per topic) or one time (about all four topics). Although the range was quite wide (between 1 time and 50 times for behavior management, lesson planning, and engagement; between 1 time and 20 times for working with other adults), it is clear that the majority of teachers who reported receiving feedback about the recommended practices targeted in the questionnaire got relatively little information about their performance in the classroom. Most respondents, though, reported that they would prefer to receive feedback monthly ( $n = 101$ ; 44.10%), weekly ( $n = 39$ ; 17.03%), or daily ( $n = 10$ ; 4.37%).

Respondents also reported the frequency with which they received specific types of feedback (about any classroom practice). As can be seen in Table 14, feedback was more often received from a supervisor than a consultant,  $t(235) = 3.657$ ,  $p = .001$  (two-tailed),  $d = 0.33$ . Feedback was more likely to be provided after a brief observation versus a long one,  $t(236) = 2.321$ ,  $p = .021$  (two-tailed),  $d = 0.17$ . Finally, verbal feedback was provided more often than written feedback,  $t(230) = 3.329$ ,  $p = .001$  (two-tailed),  $d = 0.31$ , or graphed feedback,  $t(228) = 4.477$ ,  $p = .001$  (two-tailed),  $d = 0.42$ . The large variability means the magnitude of these differences should be interpreted cautiously.

Table 14. Respondents' Self-Reported Receipt of Specific Types of Feedback

Feedback	Mean	Standard Deviation
From a supervisor	7.83	18.72
From a consultant	3.21	5.91
After a brief observation	4.12	16.65
After a long observation	2.09	4.02
On the same day as the observation	3.03	8.30
About a child with disabilities	7.00	24.09
That was written	2.58	4.67
That was graphed	0.33	0.91
That was verbal	8.87	28.75
That included coaching	2.19	5.99
From someone with teaching experience	6.00	23.37
With praise and encouragement	6.11	17.73
That compared you to yourself	2.31	4.58
That compared you to others	1.59	3.20
With specific examples	2.96	4.97
That caused you to make changes	2.97	4.44

*Effect of Presence of Children With Disabilities*

A related research question asked whether the amount of feedback received by teachers was related to the presence of children with disabilities in the classroom. The correlations between presence of children with disabilities in the classroom and the

number of times feedback was provided about behavior management, lesson planning, engagement, and working with adults were .06 and below. Correlations between presence of children with disabilities in the classroom and the variables listed in Table 14 were also low ( $r = .18$  and below). Standard regression models using presence of children with disabilities as a predictor and *Amount of Feedback – Practices* (number of times feedback was received about recommended practices) and *Amount of Feedback – Other* (number of times specific types of feedback were received about any practice) as outcome variables accounted for little variance (0.0% and 0.8% of the total variance, respectively) and were not statistically significant. Because of the low correlations and inability to predict self-reported amount of feedback from presence of children with disabilities in the classroom, it can be concluded that there is not a direct relationship between self-reported amount of feedback received by teachers and the presence of children with disabilities in the classroom. The conclusion is tentative, however, because presence of children with disabilities is a dichotomous variable.

### *Usefulness of Feedback*

In addition to the amount of feedback received, the questionnaire also included items about the usefulness of the feedback received. Teachers who received feedback about behavior management, lesson planning, engagement, and working with adults rated the usefulness of the feedback with a mean of 4.38 ( $SD = 1.01$ ), 4.35 ( $SD = 0.99$ ), 4.37 ( $SD = 1.02$ ), and 4.37 ( $SD = 1.06$ ), respectively, using a 6-point scale. As a whole, it would appear that teachers perceived the feedback they reported receiving as useful or very useful. Analysis of modal scores leads to the same conclusion. The mode for

feedback about behavior management was 5 (*very useful*; 35.48% of respondents), followed by 4 (*useful*; 33.55% of respondents). For lesson planning, engagement, and working with adults, the mode was 4 (41.67%, 38.58%, and 36.36% of respondents, respectively), followed by 5 (28.47%, 30.71%, and 28.93% of respondents, respectively). For each practice, then, the majority of teachers who received feedback rated it as useful or very useful.

#### *Differences Because of Program Type*

The final related research question asked whether the amount and usefulness of feedback received by teachers differed by program type. As can be seen in Table 15, a greater percentage of respondents working in Head Start centers reported receiving feedback about behavior management and lesson planning than did respondents working in non-Head Start centers. In addition, Head Start teachers reported receiving a greater amount of feedback about each of the practices than did non-Head Start teachers, although the differences (*d*) were small. The teachers' perception of the usefulness of feedback was roughly equivalent across program types, although non-Head Start teachers rated the usefulness of feedback about lesson planning slightly higher than did Head Start teachers.

Table 15. Amount and Usefulness of Feedback; Head Start Versus Non-Head Start

Variable	Head Start	Non-Head Start	<i>d</i>
Behavior Management			
Received Feedback	77.89%	55.00%	--

Table 15, Continued

Variable	Head Start	Non-Head Start	<i>d</i>
Mean ( <i>SD</i> ) Amount Received	3.64 (5.83)	2.77 (2.67)	.19
Mean ( <i>SD</i> ) Usefulness	4.41 (1.08)	4.33 (0.95)	.08
Lesson Planning			
Received Feedback	74.74%	49.29%	--
Mean ( <i>SD</i> ) Amount Received	4.55 (8.20)	3.03 (3.13)	.25
Mean ( <i>SD</i> ) Usefulness	4.24 (1.04)	4.46 (0.93)	-.22
Engagement			
Received Feedback	54.74%	50.71%	--
Mean ( <i>SD</i> ) Amount Received	4.37 (7.50)	2.65 (2.40)	.31
Mean ( <i>SD</i> ) Usefulness	4.35 (1.06)	4.37 (1.01)	-.02
Working With Adults			
Received Feedback	45.26%	52.14%	--
Mean ( <i>SD</i> ) Amount Received	3.26 (3.66)	2.66 (2.32)	.20
Mean ( <i>SD</i> ) Usefulness	4.33 (1.04)	4.38 (1.08)	-.05

New NAEYC program standards and accreditation criteria were adopted in September 2006; therefore, teachers were divided by time of reported accreditation to see if a difference in amount and usefulness of feedback received by teachers existed within NAEYC-accredited programs. As can be seen in Table 16, there was not a statistically significant difference in the number of respondents who reported receiving feedback in centers that were NAEYC accredited before October 2006 versus after October 2006,  $\chi^2$

(3,  $N = 425$ ) = 1.467,  $p = .690$ . There was, however, a difference in the amount of feedback that respondents reported receiving. Teachers in centers that were NAEYC accredited after October 2006 reported receiving more feedback about each of the practices than did teachers in centers that were NAEYC accredited before October 2006. Differences ( $d$ ) were small to medium. With the exception of lesson planning, there were not significant differences in the usefulness of feedback received.

Table 16. Amount and Usefulness of Feedback by Time of NAEYC Accreditation

Variable	Before 2006	After 2006	$d$
Behavior Management			
Received Feedback	58.88%	57.89%	--
Mean ( $SD$ ) Amount Received	2.41 (2.11)	4.05 (3.36)	-.58
Mean ( $SD$ ) Usefulness	4.44 (1.04)	4.50 (0.80)	-.06
Lesson Planning			
Received Feedback	47.66%	55.26%	--
Mean ( $SD$ ) Amount Received	3.55 (6.76)	4.52 (4.29)	-.17
Mean ( $SD$ ) Usefulness	4.65 (0.89)	4.14 (1.06)	.52
Engagement			
Received Feedback	52.34%	44.74%	--
Mean ( $SD$ ) Amount Received	2.79 (3.42)	4.47 (4.39)	-.43
Mean ( $SD$ ) Usefulness	4.42 (0.92)	4.47 (1.13)	-.05
Working With Adults			
Received Feedback	49.53%	57.89%	--

Table 16, Continued

Variable	Before 2006	After 2006	<i>d</i>
Mean ( <i>SD</i> ) Amount Received	2.49 (2.06)	3.45 (2.99)	-.37
Mean ( <i>SD</i> ) Usefulness	4.47 (1.14)	4.32 (0.89)	.15

### Self-Reported Receipt of Feedback and Self-Reported Use of Recommended Practices

The second research question asked to what extent self-reported receipt of feedback was associated with the self-reported use of recommended practices. Standard and hierarchical regression analyses were completed to answer the question. *Behavior Management* (teachers' self-reported use of behavior management strategies), *Lesson Planning* (teachers' self-reported use of lesson planning), *Engagement* (teachers' self-reported promotion of engagement), *Families* (the method teachers reported using to work with families), *Other Teachers* (the method teachers reported using to work with other teachers), and *Specialists* (the method teachers reported using to work with specialists) were used as outcome variables. Their response frequencies were provided in Table 12.

Three of the predictors were continuous variables: *Amount Feedback – Practices* (the amount of feedback teachers reported receiving about recommended practices;  $M = 7.42$ ,  $SD = 12.71$ ), *Amount Feedback – Other* (the amount of feedback teachers reported receiving about any practice;  $M = 3.99$ ,  $SD = 7.28$ ), and *Teaching Experience* (the number of years respondents had been teaching;  $M = 13.70$ ,  $SD = 8.49$ ). Two of the predictors were dichotomous variables: (a) *Early Childhood Degree*, describing whether the respondent's degree was ( $n = 188$ ) or was not ( $n = 35$ ) related to early childhood

education and (b) *Children With Disabilities*, describing whether children with disabilities were ( $n = 186$ ) or were not ( $n = 49$ ) enrolled in the class in the past year. Two of the remaining predictors were categorical but ordinal variables. *Level of Education* described the highest degree obtained by respondents; response frequencies were reported in Table 5. *Usefulness of Feedback* described the mean rating given for usefulness of feedback; modal data were provided in the Usefulness of Feedback section.

The final predictor, *Program Type*, described the type of program in which respondents reported working. The mean and standard deviations for the exponential distributional transformations of the outcomes, sorted by the six program type response options, are presented in Table 17. Because dummy coding each of the response options and including six variables about program type in the standard and hierarchical regression models would parse the variance too much, *Program Type* was recoded and turned into a dichotomous variable, describing whether teachers worked in Head Start ( $n = 95$ ) or non-Head Start ( $n = 140$ ) centers. For all regression analyses, results were considered noteworthy at  $\beta > .100$  and statistically significant at  $p < .050$ .



Table 17. Mean and Standard Deviation for Outcome Variables, Sorted by the Type of Program in Which Respondents Worked

Respondents' Place of Employment	<i>Behavior</i>	<i>Lesson</i>			<i>Other</i>	
	<i>Management</i>	<i>Planning</i>	<i>Engagement</i>	<i>Families</i>	<i>Teachers</i>	<i>Specialists</i>
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
	Non-Transformed					
Head Start center NAEYC accredited before Oct. 2006	5.50 (0.87)	5.90 (1.26)	5.56 (1.10)	5.85 (1.00)	5.31 (1.52)	5.15 (1.83)
Head Start center NAEYC accredited after Oct. 2006	5.48 (0.82)	5.73 (1.53)	5.79 (0.94)	6.04 (0.73)	4.96 (1.76)	5.22 (1.92)
Head Start and NAEYC accredited before 2006	5.38 (0.61)	5.50 (1.80)	5.53 (1.34)	5.91 (0.82)	5.56 (1.50)	5.60 (1.83)
Head Start and NAEYC accredited after 2006	5.56 (0.88)	6.33 (1.12)	5.67 (1.58)	5.89 (0.93)	5.11 (2.03)	5.33 (1.94)
None of the above	5.67 (1.03)	5.67 (1.97)	6.17 (1.17)	6.67 (0.52)	5.50 (1.38)	5.33 (1.63)
	5.10 (1.29)	5.40 (0.97)	5.50 (0.85)	5.70 (1.77)	4.00 (2.00)	5.78 (1.72)

Table 17, Continued

Employment	<i>Behavior</i>	<i>Lessons</i>	<i>Engagement</i>	<i>Families</i>	<i>Teachers</i>	<i>Specialists</i>
	Transformed					
Head Start center	31.00	9666.28	190.44	216.45	183.44	1139.68
	(8.49)	(6067.81)	(89.41)	(91.52)	(112.86)	(871.19)
NAEYC accredited before Oct. 2006	30.68	9281.24	208.00	229.82	164.12	1241.33
	(8.48)	(6071.58)	(78.37)	(77.20)	(119.61)	(947.50)
NAEYC accredited after Oct. 2006	29.25	9034.56	194.34	217.41	205.56	1442.20
	(6.42)	(6732.58)	(95.67)	(85.50)	(125.28)	(900.66)
Head Start and NAEYC accredited before 2006	31.56	12529.67	215.00	217.89	182.44	1255.78
	(9.71)	(6644.54)	(116.30)	(100.92)	(126.08)	(955.75)
Head Start and NAEYC accredited after 2006	33.00	10225.67	254.17	300.67	192.50	1176.67
	(11.28)	(7619.36)	(112.03)	(65.58)	(129.18)	(1035.83)
None of the above	27.50	5933.40	177.10	228.30	109.00	1529.33
	(13.45)	(4757.24)	(79.74)	(136.87)	(129.96)	(943.01)

### *Amount of Feedback Received*

To what extent was the amount of feedback received by teachers associated with their self-reported use of recommended practices? To answer this question, *Amount Feedback – Practices* and *Amount Feedback – Other* (the amount of feedback teachers reported receiving about recommended practices in the first question set [Frequency and Usefulness of Training Activities] and any practice in the second question set [Frequency of Feedback], respectively) were used as predictors in a standard regression model. Exponential distributional transformations of teachers' self-reported use of behavior management strategies (*Behavior Management*), use of lesson planning (*Lesson Planning*), promotion of engagement (*Engagement*), method used to work with families (*Families*), method used to work with other teachers (*Other Teachers*), and method used to work with specialists (*Specialists*) were used as outcome variables. None of the analyses were noteworthy or statistically significant (the total amount of variance explained ranged from 0.0% to 0.4%), meaning the model did not successfully predict teachers' self-reported use of recommended practices. The amount of feedback received by teachers did not seem to be associated with their self-reported use of recommended practices.

### *Children With Disabilities*

To what extent was the amount of feedback received by teachers associated with their self-reported use of recommended practices, after controlling for the presence of children with disabilities in the classroom? To answer this question, the presence of children with disabilities in the classroom (*Children With Disabilities*) was used as a

predictor in Block 1 and *Amount Feedback – Practices* and *Amount Feedback –Other* were used as predictors in Block 2 of a hierarchical regression model. *Behavior Management, Lesson Planning, Engagement, Families, Other Teachers, and Specialists* were used as outcome variables.

As can be seen in Table 18, the model accounted for 3.6% of the total variance in teachers' self-reported use of behavior management strategies and 3.1% of the total variance in teachers' self-reported use of lesson planning, although the model was statistically significant for teachers' self-reported use of behavior management strategies only. *Children With Disabilities* accounted for a noteworthy and statistically significant amount of unique variance (3.5% and 2.7%, respectively), with teachers who had children with disabilities in their classroom self reporting greater use of recommended behavior management strategies ( $M = 31.37, SD = 7.84$ ) and lesson planning ( $M = 9967.80, SD = 6198.78$ ) than teachers without children with disabilities in their classroom ( $M = 27.49, SD = 9.96$  for behavior management;  $M = 7540.35, SD = 5998.15$  for lesson planning). The addition of the feedback variables in Block 2 did not produce a statistically significant change in the total amount of variance accounted for in any of the outcome variables. The amount of feedback received by teachers did not seem to be associated with their self-reported use of recommended practices, after controlling for the presence of children with disabilities in the classroom.

Table 18. Amount of Feedback, Controlling for Presence of Children With Disabilities

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Behavior Management						
Block 1	.035					.004
Children With Disabilities		3.883	1.337	.187	.035	.004
Block 2	.036					.038
Children With Disabilities		3.896	1.348	.188	.035	.004
Amount Feedback – Practices		0.020	0.044	.030	.001	.659
Amount of Feedback – Other		-0.005	0.077	-.004	.000	.951
Lesson Planning						
Block 1	.025					.015
Children With Disabilities		2427.449	988.822	.159	.025	.015
Block 2	.031					.063
Children With Disabilities		2501.003	994.381	.164	.027	.013
Amount Feedback – Practices		-17.966	32.694	-.037	.001	.583
Amount of Feedback – Other		-50.099	57.082	-.059	.003	.381
Engagement						
Block 1	.004					.365
Children With Disabilities		12.743	14.030	.060	.004	.365
Block 2	.005					.779
Children With Disabilities		13.079	14.144	.061	.004	.356
Amount Feedback – Practices		-0.149	0.461	-.022	.000	.748
Amount of Feedback – Other		-0.255	0.805	-.022	.000	.751

Table 18, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Families						
Block 1	.004					.327
Children With Disabilities		13.858	14.114	.064	.004	.327
Block 2	.006					.685
Children With Disabilities		14.528	14.220	.067	.004	.308
Amount Feedback – Practices		-0.148	0.468	-.021	.000	.752
Amount of Feedback – Other		-0.454	0.816	-.038	.001	.579
Other Teachers						
Block 1	.001					.726
Children With Disabilities		6.939	19.752	.023	.001	.726
Block 2	.001					.965
Children With Disabilities		6.925	19.911	.023	.001	.728
Amount Feedback – Practices		-0.219	0.634	-.024	.001	.730
Amount of Feedback – Other		-0.089	1.104	-.006	.000	.936
Specialists						
Block 1	.000					.937
Children With Disabilities		12.659	159.323	.005	.000	.937
Block 2	.001					.981
Children With Disabilities		9.034	160.710	.004	.000	.955
Amount Feedback – Practices		-2.001	4.899	-.029	.001	.683
Amount of Feedback – Other		0.121	8.491	.001	.000	.989

### *Usefulness of Feedback Received*

To what extent was the usefulness of feedback received by teachers associated with their self-reported use of recommended practices? This question was answered using *Usefulness of Feedback* as the predictor and *Behavior Management*, *Lesson Planning*, *Engagement*, *Families*, *Other Teachers*, and *Specialists* as the outcome variables in a standard regression model. Table 19 reports the results of the analyses. The model successfully predicted teachers' self-reported method for working with specialists (to a noteworthy and statistically significant degree), accounting for 3.7% of the total variance. The usefulness of feedback received by teachers was associated with the method they reported using to work with specialists, but was not associated with other recommended practices.

Table 19. Usefulness of Feedback

Variable	$R^2$	$B$	$SE B$	$\beta$	$p$
Behavior Management	.001	0.182	0.312	.038	.561
Lesson Planning	.007	297.540	226.032	.085	.189
Engagement	.004	2.919	3.189	.060	.361
Families	.004	3.239	3.199	.066	.312
Other Teachers	.007	5.772	4.418	.086	.193
Specialists	.037	99.995	34.188	.192	.004

### *Program Type*

To what extent was the amount and usefulness of feedback received by teachers associated with their self-reported use of recommended practices, after controlling for program type? The first hierarchical regression model used *Program Type* as a predictor in Block 1 and *Amount Feedback – Practices* and *Amount Feedback – Other* as predictors in Block 2. The second hierarchical regression model used *Program Type* as a predictor in Block 1 and *Usefulness of Feedback* as a predictor in Block 2. *Behavior Management*, *Lesson Planning*, *Engagement*, *Families*, *Other Teachers*, and *Specialists* were used as outcome variables in both.

None of the analyses were noteworthy or statistically significant using the first model; the amount of feedback received by teachers did not seem to be associated with their self-reported use of recommended practices, after controlling for program type. The total amount of variance accounted for ranged from 0.2% (engagement) to 1.0% (lesson planning). Table 20 reports the results for the second model. It successfully predicted the method teachers reported using to work with specialists (to a statistically significant degree), accounting for 4.7% of the total variance. After controlling for program type, adding *Usefulness of Feedback* in Block 2 resulted in a statistically significant change in the total amount of variance accounted for ( $p = .002$ ). Usefulness of feedback was a noteworthy and statistically significant predictor of the method teachers reported using to work with specialists, accounting for 4.0% of the unique variance. The usefulness of feedback received by teachers was not associated with the self-reported use of other recommended practices, after controlling for program type.



Table 20. Usefulness of Feedback, Controlling for Program Type

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Behavior Management						
Block 1	.004					.357
Program Type		1.050	1.139	.060	.004	.357
Block 2	.005					.571
Program Type		0.972	1.151	.056	.003	.399
Usefulness of Feedback		0.167	0.317	.035	.001	.600
Lesson Planning						
Block 1	.006					.231
Program Type		987.145	821.778	.078	.006	.231
Block 2	.013					.211
Program Type		847.370	827.585	.067	.004	.307
Usefulness of Feedback		296.511	228.165	.085	.007	.195
Engagement						
Block 1	.001					.616
Program Type		-5.844	11.629	-.033	.001	.616
Block 2	.005					.535
Program Type		-7.319	11.722	-.041	.002	.533
Usefulness of Feedback		3.248	3.242	.066	.004	.317
Families						
Block 1	.001					.670
Program Type		-4.966	11.623	-.028	.001	.670

Table 20, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Block 2	.006					.516
Program Type		-6.596	11.718	-.037	.001	.574
Usefulness of Feedback		3.457	3.231	.071	.005	.286
Other Teachers						
Block 1	.003					.421
Program Type		12.901	16.019	.053	.003	.421
Block 2	.010					.331
Program Type		10.558	16.108	.044	.002	.513
Usefulness of Feedback		5.610	4.477	.084	.007	.212
Specialists						
Block 1	.007					.210
Program Type		-155.129	123.305	-.084	.007	.210
Block 2	.047					.005
Program Type		-189.612	121.569	-.103	.010	.120
Usefulness of Feedback		104.970	34.303	.202	.040	.002

### Self-Reported Receipt of Feedback, Teachers' Characteristics, and Self-Reported Use of

#### Recommended Practices

The third research question asked how feedback compared with teachers' educational level, degree (i.e., related to early childhood education or not), and experience in explaining the variance associated with the self-reported use of

recommended practices. The questions related to the third research question were the same as the questions related to the second research question; therefore headings are repeated. The reader is referred back to Tables 5 and 17 for means and standard deviations for relevant variables.

#### *Amount of Feedback Received*

How did amount of feedback received compare with teachers' educational level, degree, and experience in explaining the variance associated with the self-reported use of recommended practices? To answer this question, *Amount Feedback – Practices*, *Amount Feedback – Other*, *Level of Education*, *Early Childhood Degree*, and *Teaching Experience* were used as predictors in a standard regression model. *Behavior Management*, *Lesson Planning*, *Engagement*, *Families*, *Other Teachers*, and *Specialists* were used as outcome variables.

As can be seen in Table 21, the model predicted teachers' self-reported use of lesson planning and promotion of engagement to a statistically significant degree, accounting for 6.9% and 9.3% of the total variance, respectively. Teachers' level of education was a strong predictor, accounting for a noteworthy 1.7%, 3.1%, 4.8%, and 1.5% of the unique variance in teachers' self-reported use of behavior management strategies, use of lesson planning, promotion of engagement, and method used to work with specialists, respectively. Degree was also a noteworthy predictor, using the  $\beta > .100$  guideline, accounting for 1.7% of the unique variance in teachers' self-reported use of lesson planning and 2.8% of the unique variance in teachers' self-reported promotion of engagement. Teachers with degrees related to early childhood education ( $M = 9889.72$ ,

$SD = 6213.60$  for lesson planning;  $M = 208.03$ ,  $SD = 86.19$  for engagement) reported greater use of the strategies than did teachers without degrees related to early childhood education ( $M = 7772.91$ ,  $SD = 6087.85$  for lesson planning;  $M = 169.63$ ,  $SD = 87.61$  for engagement). Finally, teachers' experience accounted for a noteworthy 1.2%, 1.2%, 1.1%, and 1.6% of the unique variance in teachers' self-reported use of behavior management strategies, use of lesson planning, promotion of engagement, and method used to work with other teachers, respectively. Amount of feedback received by teachers did not compare well with teachers' characteristics in explaining the variance associated with teachers' self-reported use of recommended practices. Teachers' education, degree, and experience explained more of the unique variance in the outcome variables than did the variables pertaining to self-reported receipt of feedback.

Table 21. Amount of Feedback, Accounting for Teachers' Characteristics

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Behavior Management	.041					.106
Amount Feedback – Practices		0.037	0.046	.055	.002	.427
Amount Feedback – Others		-0.009	0.080	-.007	.000	.914
Level of Education		0.912	0.471	.131	.017	.054
Early Childhood Degree		1.718	1.612	.072	.005	.288
Teaching Experience		0.115	0.069	.113	.012	.096
Lesson Planning	.069					.008
Amount Feedback – Practices		-5.205	32.730	-.011	.000	.874
Amount Feedback – Others		-53.781	56.362	-.065	.004	.341

Table 21, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Level of Education		891.828	332.131	.178	.031	.008
Early Childhood Degree		2232.094	1134.966	.131	.017	.050
Teaching Experience		80.801	48.355	.111	.012	.096
Engagement	.093					.001
Amount Feedback – Practices		0.068	0.454	.010	.000	.881
Amount Feedback – Others		-0.534	0.781	-.046	.002	.494
Level of Education		15.503	4.599	.222	.048	.001
Early Childhood Degree		40.110	15.725	.168	.028	.011
Teaching Experience		1.068	0.675	.104	.011	.115
Families	.013					.725
Amount Feedback – Practices		-0.033	0.474	-.005	.000	.944
Amount Feedback – Others		-0.434	0.816	-.037	.001	.595
Level of Education		6.810	4.806	.097	.009	.158
Early Childhood Degree		-6.736	16.424	-.028	.001	.682
Teaching Experience		-0.344	0.700	-.034	.001	.624
Other Teachers	.019					.524
Amount Feedback – Practices		-0.176	0.646	-.019	.000	.785
Amount Feedback – Others		0.080	1.112	.005	.000	.943
Level of Education		-0.698	6.601	-.007	.000	.916
Early Childhood Degree		-22.506	22.673	-.068	.005	.322
Teaching Experience		1.764	0.960	.126	.016	.068

Table 21, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Specialists	.019					.545
Amount Feedback – Practices		-1.345	4.954	-.020	.000	.786
Amount Feedback – Others		-1.177	8.487	-.010	.000	.890
Level of Education		90.804	51.013	.125	.015	.077
Early Childhood Degree		111.177	173.805	.045	.002	.523
Teaching Experience		2.589	7.503	.024	.001	.730

### *Children With Disabilities*

After controlling for the presence of children with disabilities in the classroom, how did amount of feedback received compare with teachers' educational level, degree, and experience in explaining the variance associated with the self-reported use of recommended practices? To answer this question, *Children With Disabilities* was used as a predictor in Block 1 and *Amount Feedback – Practices*, *Amount Feedback – Others*, *Level of Education*, *Early Childhood Degree*, and *Teaching Experience* were used as predictors in Block 2 of a hierarchical regression model. *Behavior Management*, *Lesson Planning*, *Engagement*, *Families*, *Other Teachers*, and *Specialists* were used as outcome variables.

As can be seen in Table 22, the model accounted for a statistically significant 6.3% of the variance in teachers' self-reported use of behavior management strategies, 9.4% of the variance in teachers' self-reported use of lesson planning, and 9.2% of the variance in teachers' self-reported promotion of engagement. When the feedback

variables and teachers' characteristics were added in Block 2, there was a statistically significant change in the total amount of variance accounted for in self-reported use of lesson planning and promotion of engagement ( $p = .008$  and  $.002$ , respectively). The presence of children with disabilities in the classroom was the best predictor of teachers' self-reported use of behavior management strategies (with teachers who had children with disabilities in their classroom reporting greater use than teachers without children with disabilities in their classroom, as reported previously), accounting for a noteworthy and statistically significant 3.1% of the unique variance. It was also a strong predictor of teachers' self-reported use of lesson planning, accounting for a noteworthy 2.6% of the unique variance.

For all outcome variables, teachers' educational level and experience accounted for more unique variance than did amount of feedback received. Teachers' educational level accounted for a noteworthy 1.3%, 2.9%, 4.7%, and 1.3% of the unique variance in teachers' self-reported use of behavior management strategies, use of lesson planning, promotion of engagement, and method used to work with specialists, respectively. Teachers' experience accounted for a noteworthy 1.3%, 1.4%, 1.1%, and 1.5% of the unique variance in teachers' self-reported use of behavior management strategies, use of lesson planning, promotion of engagement, and method used to work with other teachers, respectively.

Table 22. Amount of Feedback, Accounting for Teachers' Characteristics and Controlling for Presence of Children With Disabilities

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Behavior Management						
Block 1	.030					.010
Children With Disabilities		3.713	1.435	.173	.030	.010
Block 2	.063					.029
Children With Disabilities		3.785	1.437	.176	.031	.009
Amount Feedback – Practices		0.034	0.046	.051	.002	.463
Amount Feedback – Others		-0.023	0.079	-.020	.000	.773
Level of Education		0.807	0.465	.117	.013	.084
Early Childhood Degree		1.162	1.601	.049	.002	.469
Teaching Experience		0.115	0.068	.115	.013	.090
Lesson Planning						
Block 1	.025					.019
Children With Disabilities		2466.568	1042.458	.158	.025	.019
Block 2	.094					.002
Children With Disabilities		2518.696	1024.673	.162	.026	.015
Amount Feedback – Practices		-5.511	32.674	-.011	.000	.866
Amount Feedback – Others		-66.216	56.196	-.080	.006	.240
Level of Education		864.875	331.845	.172	.029	.010
Early Childhood Degree		2144.240	1141.992	.124	.015	.062
Teaching Experience		87.849	48.364	.120	.014	.071



Table 22, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Engagement						
Block 1	.006					.245
Children With Disabilities		17.251	14.783	.079	.006	.245
Block 2	.092					.002
Children With Disabilities		16.217	14.393	.074	.005	.261
Amount Feedback – Practices		0.053	0.455	.008	.000	.908
Amount Feedback – Others		-0.597	0.783	-.052	.003	.446
Level of Education		15.279	4.620	.220	.047	.001
Early Childhood Degree		36.169	15.912	.151	.022	.024
Teaching Experience		1.071	0.678	.105	.011	.116
Families						
Block 1	.005					.292
Children With Disabilities		15.631	14.792	.071	.005	.292
Block 2	.019					.672
Children With Disabilities		15.615	14.976	.071	.005	.298
Amount Feedback – Practices		-0.071	0.478	-.010	.000	.883
Amount Feedback – Others		-0.500	0.821	-.043	.002	.543
Level of Education		6.516	4.850	.092	.008	.181
Early Childhood Degree		-8.232	16.691	-.034	.001	.622
Teaching Experience		-0.336	0.707	-.033	.001	.635

Table 22, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Other Teachers						
Block 1	.002					.566
Children With Disabilities		11.674	20.307	.039	.002	.566
Block 2	.020					.639
Children With Disabilities		14.987	20.534	.051	.003	.466
Amount Feedback – Practices		-0.291	0.648	-.032	.001	.653
Amount Feedback – Others		0.013	1.113	.001	.000	.991
Level of Education		-1.170	6.622	-.012	.000	.860
Early Childhood Degree		-18.084	22.922	-.055	.003	.431
Teaching Experience		1.746	0.965	.126	.015	.072
Specialists						
Block 1	.000					.859
Children With Disabilities		30.182	169.139	.012	.000	.859
Block 2	.018					.722
Children With Disabilities		21.737	171.297	.009	.000	.899
Amount Feedback – Practices		-2.198	5.010	-.032	.001	.661
Amount Feedback – Others		-0.985	8.536	-.008	.000	.908
Level of Education		85.154	51.460	.118	.013	.100
Early Childhood Degree		120.946	176.843	.049	.002	.495
Teaching Experience		1.613	7.592	.015	.000	.832

### *Usefulness of Feedback Received*

How did the usefulness of feedback received by teachers compare with their educational level, degree, and experience in explaining the variance associated with self-reported use of recommended practices? This question was answered using *Usefulness of Feedback*, *Level of Education*, *Early Childhood Degree*, and *Teaching Experience* as predictors and *Behavior Management*, *Lesson Planning*, *Engagement*, *Families*, *Other Teachers*, and *Specialists* as outcomes variables in a standard regression model. Table 23 reports the results of the analyses.

The model predicted teachers' self-reported use of lesson planning, promotion of engagement, and method for working with specialists to a statistically significant degree, accounting for 7.1%, 9.5%, and 5.1% of the total variance, respectively. Once again, level of education was a strong predictor, accounting for a noteworthy 1.6%, 3.2%, 4.9%, 1.0%, and 1.8% of the unique variance in teachers' self-reported use of behavior management strategies, use of lesson planning, promotion of engagement, method used to work with families, and method used to work with specialists, respectively. Teachers' experience was also a strong predictor, accounting for a noteworthy 1.2%, 1.1%, 1.0%, and 1.5% of the unique variance in teachers' self-reported use of behavior management strategies, use of lesson planning, promotion of engagement, and method used to work with other teachers, respectively. Overall, the usefulness of feedback received by teachers accounted for less unique variance than educational level, degree, and experience when predicting teachers' self-reported use of recommended practices, with the exception of the method teachers reported using to work with specialists. Usefulness of feedback was

a noteworthy and statistically significant predictor of the method teachers reported using to work with specialists, accounting for 3.2% of the unique variance.

Table 23. Usefulness of Feedback, Accounting for Teachers' Characteristics

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Behavior Management	.039					.070
Usefulness of Feedback		0.160	0.328	.033	.001	.627
Level of Education		0.888	0.469	.127	.016	.060
Early Childhood Degree		1.716	1.608	.072	.005	.287
Teaching Experience		0.113	0.069	.111	.012	.100
Lesson Planning	.071					.003
Usefulness of Feedback		302.879	230.322	.086	.007	.190
Level of Education		911.968	329.841	.182	.032	.006
Early Childhood Degree		1962.802	1129.452	.115	.013	.084
Teaching Experience		78.573	48.192	.108	.011	.104
Engagement	.095					.001
Usefulness of Feedback		3.081	3.208	.063	.004	.338
Level of Education		15.606	4.569	.223	.049	.001
Early Childhood Degree		37.658	15.656	.158	.024	.017
Teaching Experience		1.034	0.673	.101	.010	.126
Families	.016					.474
Usefulness of Feedback		3.344	3.333	.068	.004	.317
Level of Education		7.019	4.773	.100	.010	.143

Table 23, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Early Childhood Degree		-9.323	16.343	-.039	.001	.569
Teaching Experience		-0.368	0.697	-.036	.001	.599
Other Teachers	.027					.209
Usefulness of Feedback		6.075	4.585	.090	.008	.187
Level of Education		-0.191	6.540	-.002	.000	.977
Early Childhood Degree		-26.118	22.531	-.079	.006	.248
Teaching Experience		1.726	0.955	.124	.015	.072
Specialists	.051					.030
Usefulness of Feedback		94.117	35.827	.180	.032	.009
Level of Education		97.941	49.903	.135	.018	.051
Early Childhood Degree		51.713	170.606	.021	.000	.762
Teaching Experience		2.527	7.362	.024	.001	.732

### *Program Type*

After controlling for program type, how did amount and usefulness of feedback received compare with teachers' educational level, degree, and experience in explaining the variance associated with the self-reported use of recommended practices? The first hierarchical regression model used *Program Type* as a predictor in Block 1 and *Amount Feedback – Practices*, *Amount Feedback – Other*, *Level of Education*, *Early Childhood Degree*, and *Teaching Experience* as predictors in Block 2. The second hierarchical regression model used *Program Type* as a predictor in Block 1 and *Usefulness of*

*Feedback, Level of Education, Early Childhood Degree, and Teaching Experience* as predictors in Block 2. *Behavior Management, Lesson Planning, Engagement, Families, Other Teachers, and Specialists* were used as outcome variables in both.

Table 24 reports the results of the first set of analyses. As can be seen, the model successfully predicted teachers' self-reported use of lesson planning and promotion of engagement to a statistically significant degree. When the feedback variables and teachers' characteristics were added to the model in Block 2, there was a statistically significant change in the total amount of variance accounted for in self-reported use of lesson planning and promotion of engagement ( $p = .003$  and  $.001$ , respectively). Of the 9.0% of the total variance accounted for in lesson planning, educational level contributed the most unique variance at 3.6%. Degree and teaching experience accounted for a noteworthy 1.4% and 1.8% of the unique variance, respectively. Finally, program type accounted for a noteworthy and statistically significant 1.9% of the unique variance, with Head Start teachers ( $M = 9972.87$ ,  $SD = 6204.71$ ) reporting greater use of recommended practices related to lesson planning than non-Head Start teachers ( $M = 8985.73$ ,  $SD = 6167.02$ ). Amount of feedback received contributed less unique variance to self-reported use of lesson planning than program type and teachers' characteristics. Of the 9.4% of the total variance accounted for in self-reported promotion of engagement, educational level and degree contributed a noteworthy and statistically significant amount of unique variance at 4.9% and 2.8%, respectively. Amount of feedback received did not make a valuable contribution to teachers' self-reported promotion of engagement. Overall, amount of feedback received did not seem to compare well with teachers' characteristics

in explaining the variance associated with teachers' self-reported use of recommended practices.

Table 24. Amount of Feedback, Accounting for Teachers' Characteristics and Controlling for Program Type

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Behavior Management						
Block 1	.001					.613
Program Type		0.607	1.198	.034	.001	.613
Block 2	.045					.130
Program Type		0.983	1.222	.056	.003	.422
Amount Feedback – Practices		0.032	0.047	.047	.002	.502
Amount Feedback – Other		-0.008	0.080	-.007	.000	.917
Level of Education		0.973	0.476	.139	.019	.042
Early Childhood Degree		1.702	1.619	.071	.005	.294
Teaching Experience		0.121	0.070	.119	.013	.084
Lesson Planning						
Block 1	.010					.136
Program Type		1270.027	848.074	.101	.010	.136
Block 2	.090					.002
Program Type		1780.251	848.155	.141	.019	.037
Amount Feedback – Practices		-12.890	32.900	-.027	.001	.696
Amount Feedback – Other		-46.391	55.812	-.056	.003	.407

Table 24, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Level of Education		966.790	330.402	.194	.036	.004
Early Childhood Degree		2056.983	1123.606	.121	.014	.069
Teaching Experience		99.635	48.473	.138	.018	.041
Engagement						
Block 1	.001					.607
Program Type		-6.197	12.031	-.035	.001	.607
Block 2	.094					.002
Program Type		-1.123	11.942	-.006	.000	.925
Amount Feedback – Practices		0.077	0.463	.012	.000	.867
Amount Feedback – Other		-0.568	0.786	-.049	.002	.471
Level of Education		15.763	4.650	.225	.049	.001
Early Childhood Degree		40.557	15.815	.170	.028	.011
Teaching Experience		1.021	0.687	.100	.009	.139
Families						
Block 1	.001					.616
Program Type		-5.994	11.944	-.034	.001	.616
Block 2	.015					.769
Program Type		-5.941	12.372	-.034	.001	.632
Amount Feedback – Practices		-0.018	0.480	-.003	.000	.969
Amount Feedback – Other		-0.514	0.814	-.045	.002	.529
Level of Education		6.861	4.819	.098	.009	.156



Table 24, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Early Childhood Degree		-5.008	16.390	-.021	.000	.760
Teaching Experience		-0.490	0.707	-.048	.002	.489
Other Teachers						
Block 1	.004					.330
Program Type		16.107	16.499	.067	.004	.330
Block 2	.027					.447
Program Type		23.391	17.020	.097	.009	.171
Amount Feedback – Practices		-0.332	0.656	-.036	.001	.614
Amount Feedback – Other		0.110	1.113	.007	.000	.921
Level of Education		0.007	6.640	.000	.000	.999
Early Childhood Degree		-22.108	22.686	-.067	.004	.331
Teaching Experience		1.921	0.975	.138	.018	.050
Specialists						
Block 1	.006					.263
Program Type		-142.809	127.312	-.078	.006	.263
Block 2	.023					.566
Program Type		-119.892	132.006	-.065	.004	.365
Amount Feedback – Practices		-0.640	5.030	-.009	.000	.899
Amount Feedback – Other		-1.610	8.527	-.014	.000	.850
Level of Education		88.780	51.209	.122	.015	.085

Table 24, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Early Childhood Degree		116.131	174.503	.047	.002	.506
Teaching Experience		1.318	7.653	.012	.000	.863

Table 25 reports the results of the second set of analyses. The model successfully predicted teachers' self-reported use of lesson planning, promotion of engagement, and method used to work with specialists, accounting for a statistically significant 9.3%, 9.6%, and 5.7% of the total variance, respectively. For the same outcome variables, the addition of *Usefulness of Feedback* and teachers' characteristics in Block 2 resulted in a statistically significant change in the total amount of variance accounted for ( $p = .001$ ,  $.001$ , and  $.030$ , respectively). Program type accounted for a noteworthy 1.5% of the unique variance in teachers' self-reported use of lesson planning.

Teachers' educational level was the best predictor of teachers' self-reported use of behavior management strategies, lesson planning, and engagement, accounting for a noteworthy and statistically significant 1.8%, 3.9%, and 5.0% of the unique variance, respectively. Teachers' experience was also a strong predictor, accounting for a noteworthy 1.3%, 1.7%, and 1.7% of the unique variance in teachers' self-reported use of behavior management strategies, use of lesson planning, and method used to work with other teachers, respectively. Having a degree related to early childhood education was a noteworthy predictor of self-reported use of lesson planning and promotion of engagement, accounting for 1.1% and 2.5% of the unique variance, respectively. As reported above, the usefulness of feedback received by teachers accounted for less unique

variance than educational level, degree, and experience when predicting teachers' self-reported use of recommended practices, with the exception of the method teachers reported using to work with specialists. For the method teachers reported using to work with specialists, usefulness of feedback accounted for a noteworthy and statistically significant 3.4% of the unique variance.

Table 25. Usefulness of Feedback, Accounting for Teachers' Characteristics and Controlling for Program Type

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Behavior Management						
Block 1	.001					.613
Program Type		0.607	1.198	.034	.001	.613
Block 2	.044					.086
Program Type		1.056	1.211	.060	.003	.384
Usefulness of Feedback		0.152	0.333	.031	.001	.648
Level of Education		0.956	0.474	.136	.018	.045
Early Childhood Degree		1.689	1.614	.071	.005	.297
Teaching Experience		0.120	0.070	.118	.013	.086
Lesson Planning						
Block 1	.010					.136
Program Type		1270.027	848.074	.101	.010	.136
Block 2	.093					.001
Program Type		1596.991	838.864	.127	.015	.058

Table 25, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Usefulness of Feedback		290.470	230.702	.083	.007	.209
Level of Education		993.737	328.381	.199	.039	.003
Early Childhood Degree		1788.913	1118.330	.106	.011	.111
Teaching Experience		96.046	48.357	.133	.017	.048
Engagement						
Block 1	.001					.607
Program Type		-6.197	12.031	-.035	.001	.607
Block 2	.096					.001
Program Type		-2.174	11.808	-.012	.000	.854
Usefulness of Feedback		3.334	3.264	.068	.004	.308
Level of Education		15.890	4.621	.227	.050	.001
Early Childhood Degree		37.922	15.742	.159	.025	.017
Teaching Experience		0.975	0.686	.095	.009	.156
Families						
Block 1	.001					.616
Program Type		-5.994	11.944	-.034	.001	.616
Block 2	.019					.544
Program Type		-7.602	12.230	-.043	.002	.535
Usefulness of Feedback		3.621	3.364	.074	.005	.283
Level of Education		7.083	4.788	.101	.010	.140
Early Childhood Degree		-7.870	16.305	-.033	.001	.630

Table 25, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Teaching Experience		-0.531	0.705	-.052	.003	.452
Other Teachers						
Block 1	.004					.330
Program Type		16.107	16.499	.067	.004	.330
Block 2	.033					.217
Program Type		19.632	16.795	.081	.006	.244
Usefulness of Feedback		5.700	4.643	.085	.007	.221
Level of Education		0.655	6.588	.007	.000	.921
Early Childhood Degree		-25.843	22.566	-.079	.006	.253
Teaching Experience		1.852	0.971	.133	.017	.058
Specialists						
Block 1	.006					.263
Program Type		-142.809	127.312	-.078	.006	.263
Block 2	.057					.035
Program Type		-148.042	128.203	-.081	.006	.250
Usefulness of Feedback		97.286	35.990	.186	.034	.007
Level of Education		94.795	50.058	.131	.017	.060
Early Childhood Degree		57.201	171.039	.023	.001	.738
Teaching Experience		0.923	7.503	.009	.000	.902

## Self-Reported Receipt of Feedback Compared to Other Strategies Used to Train Teachers

The fourth and final research question asked how feedback compared with other strategies used to train teachers about recommended practices. As usual, *Behavior Management, Lesson Planning, Engagement, Families, Other Teachers, and Specialists* were used as outcome variables in hierarchical regression models. Teachers' characteristics were controlled for because they made noteworthy contributions to the predictions described above. Other predictors were obtained from Frequency and Usefulness of Training Activities, the only question set that asked about training strategies other than feedback. The new predictors, their means, and their standard deviations are presented in Table 26. [Information about *Amount Feedback – Practices* and *Usefulness of Feedback* is repeated here to assist the reader; it is identical to the information presented previously.]

Table 26. Descriptive Information for Additional Variables in Regression Analyses

Variable	Mean	Standard Deviation
Number of Workshops	7.06	6.69
Number of Readings	7.70	7.00
Observed a Model	7.34	25.45
Amount Feedback – Practices	7.42	12.71
Usefulness of Workshops	3.12	1.51
Usefulness of Readings	2.91	1.40
Usefulness of Models	1.78	1.72
Usefulness of Feedback	2.56	1.78

### *Amount of Training Received*

The first hierarchical regression model compared the amount of feedback teachers received about a specific training topic (behavior management, lesson planning, promoting engagement, and working with adults) with the number of in-service opportunities or workshops attended, number of books or articles read, and number of times an expert or consultant was observed modeling the strategy. As can be seen in Table 27, the predictions about teachers' self-reported use of lesson planning, promotion of engagement, and method used to work with specialists were statistically significant, accounting for 8.0%, 9.7%, and 7.0% of the total variance, respectively. The addition of variables in Block 2 accounted for a statistically significant change in the total amount of variance accounted for in self-reported method used to work with specialists ( $p = .028$ ). Number of workshops attended was a noteworthy and statistically significant predictor of the method teachers reported using to work with specialists, accounting for 4.0% of the unique variance. Observing a model was a noteworthy predictor of teachers' self-reported use of behavior management strategies, accounting for 1.3% of the unique variance. Compared with other training strategies, self-reported receipt of feedback did not seem to be an especially strong predictor of teachers' self-reported use of recommended practices. None of the training strategies accounted for a large amount of unique variance relative to the amount contributed by teachers' characteristics, though (with the exception of number of workshops attended predicting the method teachers reported using to work with specialists). As reported previously, level of education was a noteworthy and statistically significant predictor of the outcome variables, and degree and teaching experience were often noteworthy.

Table 27. Amount of Training Received

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Behavior Management						
Block 1	.038					.037
Level of Education		0.879	0.468	.126	.016	.062
Early Childhood Degree		1.793	1.597	.075	.006	.263
Teaching Experience		0.114	0.068	.112	.012	.096
Block 2	.060					.065
Level of Education		0.960	0.480	.137	.018	.047
Early Childhood Degree		1.897	1.611	.080	.006	.240
Teaching Experience		0.131	0.069	.129	.016	.060
Number of Workshops		0.086	0.108	.068	.003	.423
Number of Readings		0.007	0.102	.006	.000	.943
Observed a Model		0.039	0.023	.117	.013	.090
Amount Feedback – Practices		0.014	0.047	.021	.000	.769
Lesson Planning						
Block 1	.064					.002
Level of Education		893.923	330.104	.179	.031	.007
Early Childhood Degree		2109.292	1125.815	.123	.015	.062
Teaching Experience		80.534	48.249	.111	.012	.097
Block 2	.080					.012
Level of Education		862.602	339.515	.172	.028	.012
Early Childhood Degree		2296.796	1138.812	.134	.017	.045



Table 27, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Teaching Experience		87.718	48.955	.120	.014	.075
Number of Workshops		-3.834	76.145	-.004	.000	.960
Number of Readings		71.006	71.920	.080	.004	.325
Observed a Model		20.704	16.155	.087	.007	.201
Amount Feedback – Practices		-26.098	33.342	-.054	.003	.435
Engagement						
Block 1	.091					.001
Level of Education		15.418	4.564	.221	.048	.001
Early Childhood Degree		39.175	15.573	.164	.027	.013
Teaching Experience		1.063	0.672	.104	.010	.116
Block 2	.097					.003
Level of Education		15.797	4.719	.226	.048	.001
Early Childhood Degree		39.298	15.836	.165	.026	.014
Teaching Experience		1.075	0.686	.105	.010	.118
Number of Workshops		0.475	1.059	.037	.001	.654
Number of Readings		0.562	1.001	.045	.001	.575
Observed a Model		0.091	0.225	.027	.001	.686
Amount Feedback – Practices		-0.171	0.464	-.025	.001	.713
Families						
Block 1	.011					.471
Level of Education		6.819	4.769	.097	.009	.154

Table 27, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Early Childhood Degree		-7.705	16.263	-.032	.001	.636
Teaching Experience		-0.346	0.697	-.034	.001	.620
Block 2	.025					.594
Level of Education		7.540	4.912	.107	.011	.126
Early Childhood Degree		-7.145	16.475	-.030	.001	.665
Teaching Experience		-0.292	0.708	-.028	.001	.681
Number of Workshops		1.011	1.102	.079	.004	.360
Number of Readings		0.418	1.040	.034	.001	.688
Observed a Model		0.196	0.234	.059	.003	.402
Amount Feedback – Practices		-0.341	0.482	-.050	.002	.480
Other Teachers						
Block 1	.019					.249
Level of Education		-0.540	6.546	-.006	.000	.934
Early Childhood Degree		-22.795	22.430	-.069	.005	.311
Teaching Experience		1.767	0.956	.127	.016	.066
Block 2	.029					.513
Level of Education		1.266	6.764	.013	.000	.852
Early Childhood Degree		-26.043	22.781	-.079	.006	.254
Teaching Experience		1.658	0.974	.119	.013	.090
Number of Workshops		1.794	1.508	.103	.007	.236
Number of Readings		-1.232	1.433	-.073	.003	.391

Table 27, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Observed a Model		-0.224	0.319	-.050	.002	.483
Amount Feedback – Practices		-0.223	0.659	-.024	.001	.735
<i>Specialists</i>						
Block 1	.019					.269
Level of Education		91.990	50.561	.127	.016	.070
Early Childhood Degree		104.797	171.814	.042	.002	.543
Teaching Experience		2.634	7.466	.025	.001	.725
Block 2	.070					.038
Level of Education		124.458	51.177	.172	.027	.016
Early Childhood Degree		56.528	170.912	.023	.000	.741
Teaching Experience		1.618	7.446	.015	.000	.828
Number of Workshops		33.151	11.330	.252	.040	.004
Number of Readings		-2.983	10.720	-.023	.000	.781
Observed a Model		-1.266	2.383	-.037	.001	.596
Amount Feedback – Practices		-5.603	4.934	-.081	.006	.258

### *Children With Disabilities*

The second hierarchical regression model compared the amount of feedback teachers received with the number of times they participated in other training activities, after controlling for the presence of children with disabilities in the classroom. Here, *Children With Disabilities* was used as a predictor in Block 1 and *Number of Workshops*,

*Number of Readings, Observed a Model, and Amount Feedback – Practices* were used as predictors in Block 2. As can be seen in Table 28, the model predicted teachers’ self-reported use of behavior management strategies, use of lesson planning, and promotion of engagement to a statistically significant degree, accounting for 7.7%, 10.1%, and 9.4% of the total variance, respectively. The number of times respondents participated in training activities did not make significant contributions to the total variance accounted for in the outcome variables, though; once again, teachers’ characteristics were responsible for most of the unique variance. Notable exceptions were the number of workshops attended (which was a noteworthy and statistically significant predictor of the method teachers reported using to work with specialists, accounting for 3.7% of the unique variance) and number of models observed (which was a noteworthy predictor of teachers’ self-reported use of behavior management strategies, accounting for 1.0% of the unique variance).

Table 28. Amount of Training Received, Controlling for Presence of Children With Disabilities

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Behavior Management						
Block 1	.061					.009
Level of Education		0.776	0.462	.112	.012	.094
Early Childhood Degree		1.204	1.586	.051	.003	.449
Teaching Experience		0.114	0.068	.114	.013	.092
Children With Disabilities		3.736	1.426	.174	.030	.009

Table 28, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Block 2	.077					.029
Level of Education		0.804	0.476	.116	.013	.093
Early Childhood Degree		1.347	1.605	.057	.003	.402
Teaching Experience		0.129	0.069	.128	.016	.061
Children With Disabilities		3.689	1.437	.172	.029	.011
Number of Workshops		0.028	0.107	.022	.000	.795
Number of Readings		0.043	0.102	.034	.001	.676
Observed a Model		0.034	0.022	.105	.010	.128
Amount Feedback – Practices		0.014	0.046	.021	.000	.761
Lesson Planning						
Block 1	.087					.001
Level of Education		867.083	330.139	.173	.029	.009
Early Childhood Degree		1994.558	1134.082	.116	.013	.080
Teaching Experience		87.120	48.307	.119	.014	.073
Children With Disabilities		2417.308	1019.596	.155	.024	.019
Block 2	.101					.004
Level of Education		808.207	340.642	.161	.024	.019
Early Childhood Degree		2182.621	1147.796	.127	.015	.059
Teaching Experience		93.785	49.064	.128	.016	.057
Children With Disabilities		2463.085	1027.841	.158	.024	.017
Number of Workshops		-28.587	76.702	-.031	.001	.710

Table 28, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Number of Readings		80.764	72.926	.090	.005	.269
Observed a Model		19.297	16.099	.081	.006	.232
Amount Feedback – Practices		-25.022	33.209	-.052	.002	.452
Engagement						
Block 1	.090					.001
Level of Education		15.205	4.585	.219	.047	.001
Early Childhood Degree		35.072	15.760	.147	.021	.027
Teaching Experience		1.061	0.676	.104	.011	.118
Children With Disabilities		15.272	14.288	.070	.005	.286
Block 2	.094					.007
Level of Education		15.246	4.758	.219	.045	.002
Early Childhood Degree		35.218	16.043	.147	.021	.029
Teaching Experience		1.063	0.690	.104	.010	.125
Children With Disabilities		15.432	14.488	.071	.005	.288
Number of Workshops		0.150	1.072	.012	.000	.889
Number of Readings		0.724	1.020	.058	.002	.479
Observed a Model		0.067	0.225	.020	.000	.766
Amount Feedback – Practices		-0.158	0.464	-.024	.000	.735
Families						
Block 1	.016					.465
Level of Education		6.559	4.812	.093	.008	.174

Table 28, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Early Childhood Degree		-9.438	16.531	-.039	.002	.569
Teaching Experience		-0.341	0.704	-.033	.001	.629
Children With Disabilities		14.861	14.862	.068	.005	.318
Block 2	.027					.660
Level of Education		7.030	4.979	.100	.009	.159
Early Childhood Degree		-8.617	16.776	-.036	.001	.608
Teaching Experience		-0.290	0.717	-.028	.001	.687
Children With Disabilities		13.972	15.023	.064	.004	.353
Number of Workshops		0.768	1.121	.059	.002	.494
Number of Readings		0.465	1.066	.037	.001	.663
Observed a Model		0.181	0.235	.054	.003	.444
Amount Feedback – Practices		-0.346	0.485	-.051	.002	.477
Other Teachers						
Block 1	.019					.394
Level of Education		-0.908	6.566	-.010	.000	.890
Early Childhood Degree		-18.854	22.681	-.057	.003	.407
Teaching Experience		1.753	0.961	.126	.016	.070
Children With Disabilities		15.151	20.366	.051	.003	.458
Block 2	.031					.593
Level of Education		0.743	6.801	.008	.000	.913
Early Childhood Degree		-20.915	23.027	-.064	.004	.365

Table 28, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Teaching Experience		1.652	0.979	.119	.013	.093
Children With Disabilities		12.559	20.582	.042	.002	.542
Number of Workshops		1.646	1.522	.094	.005	.281
Number of Readings		-1.572	1.456	-.092	.005	.282
Observed a Model		-0.224	0.319	-.050	.002	.482
Amount Feedback – Practices		-0.285	0.658	-.031	.001	.665
Specialists						
Block 1	.017					.487
Level of Education		87.196	50.997	.120	.014	.089
Early Childhood Degree		111.978	174.803	.045	.002	.523
Teaching Experience		1.723	7.553	.016	.000	.820
Children With Disabilities		25.619	169.718	.011	.000	.880
Block 2	.065					.098
Level of Education		118.435	51.845	.163	.025	.023
Early Childhood Degree		70.830	174.381	.029	.001	.685
Teaching Experience		0.681	7.556	.006	.000	.928
Children With Disabilities		-4.506	168.761	-.002	.000	.979
Number of Workshops		32.164	11.522	.243	.037	.006
Number of Readings		-3.680	11.017	-.028	.001	.739
Observed a Model		-1.355	2.399	-.040	.002	.573
Amount Feedback – Practices		-6.051	4.977	-.088	.007	.225



### *Usefulness of Training Received*

The third hierarchical regression model compared the usefulness of feedback teachers received with the usefulness of in-service opportunities and workshops attended, books and articles read, and experts and consultants observed. *Usefulness of Workshops*, *Usefulness of Readings*, *Usefulness of Models*, and *Usefulness of Feedback* were used as predictors. Table 29 reports the results of the analyses. The model successfully predicted teachers' self-reported use of lesson planning, promotion of engagement, and method for working with specialists, accounting for a statistically significant 10.2%, 12.7%, and 8.2% of the total variance. After controlling for teachers' characteristics, the addition of the usefulness variables in Block 2 of the model resulted in a statistically significant change in the total amount of variance accounted for in the method teachers reported using to work with specialists ( $p = .009$ ). Usefulness of workshops was a strong predictor, accounting for a noteworthy 1.2% of the unique variance in teachers' self-reported promotion of engagement, 3.1% of the unique variance in self-reported method used to work with families, 1.5% of the unique variance in self-reported method used to work with other teachers, and 1.3% of the unique variance in self-reported method used to work with specialists. Usefulness of models was also a strong predictor, accounting for 1.7%, 1.0%, and 0.9% of the unique variance in teachers' self-reported use of lesson planning, promotion of engagement, and method used to work with specialists, respectively. Usefulness of feedback received, the variable of interest, did not compare well with other strategies used to train teachers. It was a noteworthy predictor of the self-reported method used to work with specialists only, accounting for 0.7% of the unique variance, although usefulness of workshops and readings seemed to better predict

teachers' self-reported method for working with specialists than did usefulness of feedback.

Table 29. Usefulness of Training Received

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Behavior Management						
Block 1	.038					.038
Level of Education		0.893	0.469	.128	.016	.058
Early Childhood Degree		1.774	1.600	.074	.005	.269
Teaching Experience		0.112	0.069	.110	.012	.104
Block 2	.051					.130
Level of Education		0.990	0.483	.142	.019	.042
Early Childhood Degree		1.544	1.618	.065	.004	.341
Teaching Experience		0.105	0.069	.103	.010	.133
Usefulness of Workshops		0.198	0.526	.034	.001	.707
Usefulness of Readings		0.617	0.580	.098	.005	.288
Usefulness of Models		0.124	0.504	.024	.000	.805
Usefulness of Feedback		-0.265	0.442	-.054	.002	.550
Lesson Planning						
Block 1	.065					.002
Level of Education		868.759	329.814	.174	.030	.009
Early Childhood Degree		2141.340	1123.432	.126	.016	.058
Teaching Experience		84.154	48.204	.116	.013	.082

Table 29, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Block 2	.102					.001
Level of Education		870.589	334.390	.175	.029	.010
Early Childhood Degree		1733.191	1120.407	.102	.010	.123
Teaching Experience		88.713	48.014	.122	.014	.066
Usefulness of Workshops		352.563	363.161	.085	.004	.333
Usefulness of Readings		-283.140	401.479	-.063	.002	.481
Usefulness of Models		709.143	348.988	.195	.017	.043
Usefulness of Feedback		-134.193	306.487	-.038	.001	.662
Engagement						
Block 1	.091					.001
Level of Education		15.463	4.581	.221	.048	.001
Early Childhood Degree		39.117	15.611	.164	.027	.013
Teaching Experience		1.056	0.675	.103	.010	.119
Block 2	.127					.001
Level of Education		16.249	4.648	.232	.050	.001
Early Childhood Degree		33.909	15.578	.142	.020	.031
Teaching Experience		1.066	0.673	.104	.010	.115
Usefulness of Workshops		8.620	5.075	.148	.012	.091
Usefulness of Readings		-3.224	5.584	-.051	.001	.564
Usefulness of Models		7.516	4.854	.147	.010	.123
Usefulness of Feedback		-3.843	4.264	-.078	.003	.368

Table 29, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Families						
Block 1	.010					.538
Level of Education		6.370	4.753	.091	.008	.182
Early Childhood Degree		-7.133	16.189	-.030	.001	.660
Teaching Experience		-0.281	0.695	-.028	.001	.686
Block 2	.048					.160
Level of Education		8.243	4.824	.118	.013	.089
Early Childhood Degree		-10.323	16.164	-.043	.002	.524
Teaching Experience		-0.311	0.693	-.031	.001	.654
Usefulness of Workshops		13.747	5.239	.237	.031	.009
Usefulness of Readings		-7.356	5.792	-.117	.007	.205
Usefulness of Models		-2.741	5.035	-.054	.001	.587
Usefulness of Feedback		2.692	4.422	.055	.002	.543
Other Teachers						
Block 1	.019					.244
Level of Education		-0.711	6.567	-.007	.000	.914
Early Childhood Degree		-22.570	22.475	-.069	.005	.316
Teaching Experience		1.791	0.959	.128	.016	.063
Block 2	.051					.134
Level of Education		0.396	6.693	.004	.000	.953
Early Childhood Degree		-27.290	22.557	-.083	.007	.228

Table 29, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Teaching Experience		1.832	0.959	.131	.017	.058
Usefulness of Workshops		13.235	7.288	.166	.015	.071
Usefulness of Readings		-14.957	8.014	-.172	.016	.063
Usefulness of Models		0.097	6.947	.001	.000	.989
Usefulness of Feedback		6.683	6.095	.099	.005	.274
Specialists						
Block 1	.019					.278
Level of Education		90.279	50.716	.124	.015	.077
Early Childhood Degree		106.992	172.115	.043	.002	.535
Teaching Experience		2.875	7.488	.027	.001	.701
Block 2	.082					.015
Level of Education		92.624	50.772	.128	.015	.070
Early Childhood Degree		23.986	170.111	.010	.000	.888
Teaching Experience		4.436	7.366	.042	.002	.548
Usefulness of Workshops		94.237	57.053	.152	.013	.100
Usefulness of Readings		-114.008	62.087	-.171	.015	.068
Usefulness of Models		73.469	52.743	.137	.009	.165
Usefulness of Feedback		57.007	46.658	.109	.007	.223

### *Program Type*

The fourth and fifth hierarchical regression models compared the amount and usefulness of feedback received with the amount and usefulness of other strategies used to train teachers about recommended practices, after controlling for program type.

*Program Type* was used as a predictor in Block 1 in both models. In the fourth model, *Number of Workshops*, *Number of Readings*, *Observed a Model*, and *Amount Feedback – Practices* were used as predictors in Block 2. In the fifth model, *Usefulness of Workshops*, *Usefulness of Readings*, *Usefulness of Models*, and *Usefulness of Feedback* were used as predictors in Block 2.

As can be seen in Table 30, the fourth model successfully predicted teachers' self-reported use of lesson planning, promotion of engagement, and method used to work with specialists, accounting for a statistically significant 10.4%, 9.8%, and 7.5% of the total variance, respectively. The addition of Block 2 variables resulted in a statistically significant change in the total amount of variance accounted for in the self-reported method used to work with specialists ( $p = .028$ ). Teachers' characteristics accounted for the majority of the unique variance, though. The number of times a model was observed was a noteworthy predictor of teachers' self-reported use of behavior management strategies, accounting for 1.2% of the unique variance, and the number of readings completed was a noteworthy predictor of teachers' self-reported use of lesson planning, accounting for 0.7% of the unique variance. The number of workshops attended was a noteworthy and statistically significant predictor of the method teachers reported using to work with specialists, accounting for 4.1% of the unique variance. Self-reported receipt

of feedback accounted for only 0.4% of the unique variance in the outcome variables, at the most.

Table 30. Amount of Training Received, Controlling for Program Type

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Behavior Management						
Block 1	.043					.051
Level of Education		0.946	0.473	.135	.018	.047
Early Childhood Degree		1.762	1.603	.074	.005	.273
Teaching Experience		0.122	0.070	.120	.014	.081
Program Type		1.125	1.199	.064	.004	.349
Block 2	.063					.086
Level of Education		1.009	0.484	.144	.019	.038
Early Childhood Degree		1.878	1.619	.079	.006	.247
Teaching Experience		0.135	0.070	.133	.016	.056
Program Type		0.843	1.222	.048	.002	.491
Number of Workshops		0.074	0.109	.058	.002	.496
Number of Readings		0.023	0.103	.018	.000	.826
Observed a Model		0.037	0.023	.112	.012	.107
Amount Feedback – Practices		0.010	0.048	.015	.000	.836
Lesson Planning						
Block 1	.086					.001
Level of Education		975.007	328.490	.196	.038	.003

Table 30, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Early Childhood Degree		1928.775	1114.313	.114	.013	.085
Teaching Experience		99.124	48.361	.137	.018	.042
Program Type		1726.894	833.627	.137	.018	.040
Block 2	.104					.003
Level of Education		936.893	336.778	.188	.033	.006
Early Childhood Degree		2117.180	1125.482	.125	.015	.061
Teaching Experience		105.304	48.894	.146	.020	.032
Program Type		1810.662	849.640	.144	.019	.034
Number of Workshops		-11.784	75.620	-.013	.000	.876
Number of Readings		90.944	71.626	.103	.007	.206
Observed a Model		18.340	15.990	.078	.006	.253
Amount Feedback – Practices		-33.683	33.329	-.070	.004	.313
Engagement						
Block 1	.092					.001
Level of Education		15.670	4.617	.224	.049	.001
Early Childhood Degree		39.555	15.662	.166	.027	.012
Teaching Experience		1.019	0.684	.099	.009	.138
Program Type		-0.730	11.724	-.004	.000	.950
Block 2	.098					.005
Level of Education		15.992	4.766	.228	.048	.001
Early Childhood Degree		39.699	15.930	.166	.027	.013



Table 30, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Teaching Experience		1.029	0.697	.100	.009	.141
Program Type		-0.732	12.030	-.004	.000	.952
Number of Workshops		0.381	1.070	.030	.001	.722
Number of Readings		0.648	1.014	.052	.002	.523
Observed a Model		0.086	0.226	.026	.001	.704
Amount Feedback – Practices		-0.163	0.472	-.024	.001	.730
Families						
Block 1	.013					.578
Level of Education		6.849	4.785	.098	.009	.154
Early Childhood Degree		-6.126	16.230	-.026	.001	.706
Teaching Experience		-0.493	0.704	-.049	.002	.485
Program Type		-5.983	12.142	-.034	.001	.623
Block 2	.026					.689
Level of Education		7.419	4.924	.106	.010	.133
Early Childhood Degree		-5.474	16.454	-.023	.001	.740
Teaching Experience		-0.439	0.715	-.043	.002	.540
Program Type		-6.229	12.421	-.035	.001	.617
Number of Workshops		0.831	1.106	.065	.003	.453
Number of Readings		0.516	1.047	.042	.001	.623
Observed a Model		0.193	0.234	.058	.003	.410
Amount Feedback – Practices		-0.319	0.487	-.048	.002	.514

Table 30, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Other Teachers						
Block 1	.026					.235
Level of Education		0.287	6.589	.003	.000	.965
Early Childhood Degree		-22.717	22.449	-.069	.005	.313
Teaching Experience		1.912	0.971	.137	.018	.050
Program Type		21.953	16.708	.091	.008	.190
Block 2	.035					.482
Level of Education		1.685	6.800	.018	.000	.805
Early Childhood Degree		-25.622	22.812	-.078	.006	.263
Teaching Experience		1.792	0.987	.129	.015	.071
Program Type		22.900	17.125	.095	.008	.183
Number of Workshops		1.501	1.519	.086	.004	.324
Number of Readings		-0.925	1.447	-.055	.002	.523
Observed a Model		-0.264	0.320	-.059	.003	.410
Amount Feedback – Practices		-0.360	0.667	-.039	.001	.590
Specialists						
Block 1	.023					.311
Level of Education		89.240	50.783	.123	.015	.080
Early Childhood Degree		110.863	172.489	.045	.002	.521
Teaching Experience		1.318	7.617	.012	.000	.863
Program Type		-121.856	129.798	-.066	.004	.349

Table 30, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Block 2	.075					.047
Level of Education		122.779	51.341	.169	.027	.018
Early Childhood Degree		61.592	171.525	.025	.001	.720
Teaching Experience		0.369	7.575	.003	.000	.961
Program Type		-126.336	129.763	-.069	.004	.331
Number of Workshops		33.838	11.386	.258	.041	.003
Number of Readings		-3.985	10.817	-.031	.001	.713
Observed a Model		-1.107	2.394	-.033	.001	.644
Amount Feedback – Practices		-4.926	4.997	-.071	.004	.325

Table 31 reports the results of the fifth model. The model successfully predicted teachers' self-reported use of lesson planning, promotion of engagement, and method used to work with specialists, accounting for a statistically significant 12.3%, 12.6%, and 9.1% of the total variance, respectively. After controlling for teachers' characteristics and program type, the addition of the usefulness variables in Block 2 resulted in a statistically significant change in the total amount of variance accounted for in the self-reported method used to work with specialists ( $p = .006$ ). Usefulness of workshops predicted teachers' self-reported promotion of engagement and method used to work with families, other teachers, and specialists, accounting for a noteworthy 1.0%, 2.4%, 1.1%, and 1.4% of the unique variance, respectively. Usefulness of readings predicted teachers' self-reported use of behavior management strategies and the method teachers used to work

with other teachers and specialists, accounting for a noteworthy 0.8%, 1.3%, and 1.6% of the unique variance, respectively. Usefulness of models predicted teachers' self-reported use of lesson planning, promotion of engagement, and method used to work with specialists, accounting for a noteworthy 1.7%, 1.0%, and 1.0% of the unique variance, respectively. Finally, usefulness of feedback accounted for a noteworthy 0.6% of the unique variance in the method teachers reported using to work with other teachers and specialists. Overall, usefulness of feedback did not compare well with usefulness of other training activities in predicting teachers' self-reported use of recommended practices.

Table 31. Usefulness of Training Received, Controlling for Program Type

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Behavior Management						
Block 1	.042					.053
Level of Education		0.958	0.474	.137	.018	.044
Early Childhood Degree		1.747	1.606	.073	.005	.278
Teaching Experience		0.120	0.070	.118	.013	.088
Program Type		1.071	1.206	.060	.003	.376
Block 2	.056					.142
Level of Education		1.055	0.487	.151	.021	.031
Early Childhood Degree		1.548	1.625	.065	.004	.342
Teaching Experience		0.108	0.071	.107	.011	.126
Program Type		0.890	1.230	.050	.002	.470
Usefulness of Workshops		0.018	0.546	.003	.000	.974

Table 31, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Usefulness of Readings		0.794	0.599	.125	.008	.186
Usefulness of Models		0.064	0.509	.013	.000	.899
Usefulness of Feedback		-0.216	0.446	-.044	.001	.628
Lesson Planning						
Block 1	.089					.001
Level of Education		949.052	327.704	.191	.036	.004
Early Childhood Degree		1961.471	1110.474	.116	.013	.079
Teaching Experience		104.210	48.291	.145	.020	.032
Program Type		1841.927	833.717	.146	.021	.028
Block 2	.123					.001
Level of Education		934.881	332.563	.188	.033	.005
Early Childhood Degree		1563.363	1109.624	.093	.008	.160
Teaching Experience		105.660	48.201	.147	.020	.029
Program Type		1411.764	839.862	.112	.012	.094
Usefulness of Workshops		300.275	373.086	.072	.003	.422
Usefulness of Readings		-245.122	409.059	-.055	.002	.550
Usefulness of Models		705.193	347.731	.195	.017	.044
Usefulness of Feedback		-132.408	304.280	-.038	.001	.664
Engagement						
Block 1	.092					.001
Level of Education		15.713	4.633	.224	.049	.001

Table 31, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Early Childhood Degree		39.500	15.701	.166	.027	.013
Teaching Experience		1.010	0.688	.098	.009	.143
Program Type		-0.921	11.794	-.005	.000	.938
Block 2	.126					.001
Level of Education		16.279	4.703	.232	.050	.001
Early Childhood Degree		34.100	15.691	.143	.020	.031
Teaching Experience		0.980	0.687	.095	.008	.155
Program Type		-6.753	11.874	-.038	.001	.570
Usefulness of Workshops		8.099	5.283	.137	.010	.127
Usefulness of Readings		-2.590	5.784	-.041	.001	.655
Usefulness of Models		7.636	4.917	.149	.010	.122
Usefulness of Feedback		-3.632	4.307	-.073	.003	.400
Families						
Block 1	.011					.667
Level of Education		6.440	4.768	.093	.008	.178
Early Childhood Degree		-5.610	16.157	-.024	.001	.729
Teaching Experience		-0.413	0.703	-.041	.002	.558
Program Type		-4.168	12.131	-.024	.001	.731
Block 2	.042					.323
Level of Education		8.030	4.854	.116	.013	.100
Early Childhood Degree		-8.570	16.195	-.036	.001	.597

Table 31, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Teaching Experience		-0.464	0.703	-.046	.002	.510
Program Type		-7.481	12.257	-.043	.002	.542
Usefulness of Workshops		12.543	5.445	.217	.024	.022
Usefulness of Readings		-6.156	5.970	-.098	.005	.304
Usefulness of Models		-3.142	5.075	-.062	.002	.537
Usefulness of Feedback		3.073	4.441	.063	.002	.490
Other Teachers						
Block 1	.027					.221
Level of Education		0.089	6.607	.001	.000	.989
Early Childhood Degree		-22.459	22.487	-.068	.005	.319
Teaching Experience		1.951	0.974	.140	.018	.046
Program Type		22.821	16.797	.094	.008	.176
Block 2	.052					.196
Level of Education		0.790	6.752	.008	.000	.907
Early Childhood Degree		-26.404	22.666	-.081	.006	.245
Teaching Experience		1.969	0.978	.141	.019	.045
Program Type		19.060	17.005	.079	.006	.264
Usefulness of Workshops		11.596	7.571	.144	.011	.127
Usefulness of Readings		-13.649	8.282	-.156	.013	.101
Usefulness of Models		-0.967	7.016	-.014	.000	.891
Usefulness of Feedback		6.963	6.141	.103	.006	.258

Table 31, Continued

Variable	$R^2$	$B$	$SE B$	$\beta$	$sr^2$	$p$
Specialists						
Block 1	.022					.330
Level of Education		87.880	50.938	.121	.014	.086
Early Childhood Degree		112.488	172.823	.046	.002	.516
Teaching Experience		1.592	7.648	.015	.000	.835
Program Type		-115.926	130.512	-.063	.004	.375
Block 2	.091					.013
Level of Education		89.163	50.839	.123	.014	.081
Early Childhood Degree		28.039	170.205	.011	.000	.869
Teaching Experience		2.494	7.493	.023	.000	.740
Program Type		-182.134	128.659	-.099	.009	.158
Usefulness of Workshops		100.178	57.431	.162	.014	.083
Usefulness of Readings		-117.176	62.184	-.175	.016	.061
Usefulness of Models		80.407	53.028	.150	.010	.131
Usefulness of Feedback		55.074	46.677	.105	.006	.239



## CHAPTER IV

### DISCUSSION

The purpose of the study was to inform the field about early childhood teachers' perceptions of the feedback they receive about their classroom practices. The first objective was to determine if teachers receive feedback, and the second objective was to determine if self-reported receipt of feedback predicts teachers' self-reported use of recommended practices. The recommended practices were related to teachers' use of behavior management strategies, use of lesson planning, promotion of children's engagement, and method for working with families, other teachers, and specialists. Four research questions guided the analyses.

The first research question asked whether teachers were receiving feedback about their use of recommended practices. As reported above, teachers reported receiving very little information about their classroom practices. When feedback was received, though, teachers reported that it was quite useful. The amount of feedback received differed by program type, with teachers in centers that were accredited using the new NAEYC program standards and accreditation criteria and teachers in Head Start centers reporting that they received more feedback about each of the recommended practices than teachers in centers that were accredited using the old NAEYC guidelines.

The second research question asked to what extent self-reported receipt of feedback was associated with self-reported use of recommended practices. Self-reported receipt of feedback alone did not predict teachers' self-reported use of recommended

practices. When the presence of children with disabilities in the classroom was added to the model, it accounted for a noteworthy and statistically significant amount of unique variance in teachers' self-reported use of behavior management strategies and lesson planning. (Note that the criterion for noteworthiness was  $\beta > .100$ ; in most cases, even when the criterion was met, the total amount of variance explained was less than 10.00%.) When program type (Head Start versus non-Head Start) was added to the model, it did not predict teachers' self-reported use of recommended practices. Usefulness of feedback had a small predictive effect for the method teachers reported using to work with specialists.

The third research question asked how feedback compares with teachers' educational level, degree, and experience in explaining the variance associated with the self-reported use of recommended practices. Teachers' educational level was a noteworthy predictor of self-reported use of behavior management strategies, use of lesson planning, promotion of engagement, and method used to work with specialists. Whether or not teachers' training was related to early childhood education had a small predictive effect on teachers' promotion of engagement. Finally, teachers' experience was useful for predicting everything except the method teachers reported using to work with families and specialists. Compared to the results reported above, showing that amount of feedback received was not very useful in predicting teachers' self-reported use of recommended practices, it is clear that teachers' characteristics were more valuable predictors of the outcomes studied here than was self-reported receipt of feedback. Usefulness of feedback accounted for more unique variance in the method teachers reported using to work with specialists than did teachers' characteristics; otherwise,

teachers' characteristics were better predictors of self-reported use of recommended practices than was usefulness of feedback.

The fourth research question asked how feedback compares with other strategies used to train teachers about recommended practices. One of the training strategies, attendance at an in-service or workshop, had a small predictive effect for the method teachers reported using to work with specialists. Another training strategy, observation of a person modeling the use of recommended practices, had a small predictive effect for teachers' self-reported use of behavior management strategies. Compared with these other training strategies, self-reported receipt of feedback was not an especially strong predictor of teachers' self-reported use of recommended practices. It should be noted, however, that none of the training strategies were especially strong predictors of teachers' self-reported use of recommended practices compared with teachers' characteristics, which accounted for the majority (i.e., 10.00% or less) of the explained variance.

#### Accuracy of Hypotheses and Relationship to Published Literature

It was hypothesized that (a) teachers would report receiving very little feedback about their classroom practices, (b) teachers who had children with disabilities in their classroom would report receiving more feedback than teachers who did not have children with disabilities in their classroom, and (c) Head Start teachers would report receiving more feedback than non-Head Start teachers. Teachers did, in fact, report receiving infrequent feedback about their classroom practices. Teachers who had children with disabilities in their classroom reported receiving more feedback than teachers without children with disabilities in their classroom, although most effect sizes were small.

(Teachers with children with disabilities in their classroom reported receiving significantly more feedback from expert consultants, though [ $d = .43$ ].) As reported above, presence of children with disabilities in the classroom was not highly correlated with self-reported receipt of feedback and did not predict self-reported receipt of feedback. Finally, Head Start teachers reported receiving more feedback than non-Head Start teachers.

It was also hypothesized that self-reported receipt of feedback would (a) predict teachers' self-reported use of recommended practices, (b) be a better predictor than variables such as teachers' educational level and experience, and (c) be a better predictor than other strategies used to train teachers. Despite the fact that reflective supervision (i.e., observation by mentors or supervisors, including feedback and self-reflection) has appeared as a predictor of effective teaching behaviors in the past (Howes, James, & Ritchie, 2003), the data reported in this paper did not support any of the hypotheses. Teachers' educational level and experience were better predictors of their self-reported use of recommended practices than were the receipt-of-feedback variables.

#### *Teachers' Educational Level*

The finding that teachers' educational level had a small predictive effect for self-reported use of recommended practices is consistent with data Tout et al. (2006) compiled, showing that most studies published before 2002 that included teachers' educational level as a variable reported that it was a noteworthy predictor of global environmental quality and caregiver-child interactions. For example, Howes, Whitebook, and Phillips (1992) found that teachers' education was the most consistent predictor of

caregiver style (i.e., sensitivity, harshness, detachment, and so on). Similarly, Howes (1997) found that teachers with more education related to early childhood (e.g., teachers with a bachelor's degree in early childhood education versus teachers with a Child Development Associate credential) were more responsive and sensitive.

In the current study, teachers' educational level was the single most predictive variable, especially for teachers' self-reported promotion of engagement. Other researchers have found that teachers' educational level is associated with class-wide engagement, as well. For instance, de Kruif, McWilliam, Ridley, and Wakely (2000) used cluster analysis to group early childhood teachers according to their interactions with children. They found that the four groups differed on teachers' level of education and group engagement, among other variables (e.g., classroom quality and center licensing level). Less educated teachers tended to be less sensitive and use more redirection and less elaboration; fewer children, therefore, tended to be actively engaged in classroom activities. Teachers with more education, on the other hand, were less punitive and detached and their classrooms scored higher on measures of group engagement. Likewise, Maxwell, McWilliam, Hemmeter, Ault, and Schuster (2001) found that classroom characteristics, teacher characteristics, and teacher beliefs accounted for 42% of the variance in teachers' use of developmentally appropriate practices. Teachers' educational level accounted for 17% of the unique variance, with teachers with a master's degree using more practices that promoted meaningful engagement than teachers with less education.

The results about teachers' educational level do not add to emerging evidence, however, suggesting that there is not really a consistent pattern of association between

teachers' educational level and classroom quality. Early et al. (2006) did not find an association in a study of state-funded prekindergarten programs. Other researchers have found that associations between teachers' education and classroom quality exist in simple models, but disappear when classroom- and center-level variables are controlled for in more complex models (e.g., Blau, 2000; Phillips, Mekos, Scarr, McCartney, & Abbott-Shim, 2001; Phillipsen et al., 1997). (This might explain why the current results do not support the claim that teachers' educational level and classroom quality are unrelated; variables such as class size and adult:child ratio were not included in the models.) When Early et al. (2007) reanalyzed data from seven major studies of center-based child care, they did not find a consistent pattern of results and concluded that an association between teachers' education and program quality did not exist. Interestingly, Early et al. (2007) suggested that one possible reason for the lack of association was that teachers were not provided with proper levels of support when they transitioned from a degree-granting program to the classroom. They hypothesized that teachers might not be able to implement what they have learned without mentoring, coaching, or the provision of feedback.

### *Feedback Versus Other Training Strategies*

Self-reported receipt of feedback, however, did not compare well with other strategies used to train teachers about the use of recommended practices. Attendance at in-service or workshop trainings was a noteworthy and statistically significant predictor of the method teachers reported using to work with specialists, and observation of a person modeling the use of recommended practices was a noteworthy predictor of

teachers' self-reported use of behavior management strategies. Self-reported receipt of feedback was expected to be a better predictor of teachers' self-reported use of recommended practices than workshop attendance or observation of a model.

As reported above, Rose and Church (1998) reviewed the professional development literature and concluded that the most effective method for training teachers is to provide opportunities to practice a new skill and receive feedback about implementation. Noell et al. (2000) compared two consultation strategies and concurred. They assessed teachers' intervention implementation under two conditions: (a) meetings with a consultant in which the intervention was discussed but outcome data were not provided and (b) meetings with a consultant in which teacher implementation data and student academic achievement data were provided. Noell et al. concluded that the provision of performance feedback resulted in the best teacher implementation and student academic outcomes. Self-reported receipt of feedback should at least have been a better predictor than attendance at a workshop because of research suggesting that the more individualized a training strategy is, the better the outcomes. Fukkink and Lont (2007) completed a meta-analysis of the research referred to and concluded that tailored manualized training (i.e., fixed-curriculum courses supplemented with individualized performance-based feedback, coaching, or mentoring) was the most effective method for improving teachers' competence. The results of the current study and the emerging evidence in the field are clearly discrepant.

The discrepancy between expected results and obtained results can be explained in multiple ways. First, although attending workshops and observing a model appeared to be better predictors of teachers' self-reported use of recommended practices than self-

reported receipt of feedback, it is possible that one or more unmeasured variables influenced the relationship between the predictors and the outcomes. After all, the amount of variance attributed to error in the models was substantial. The unmeasured variables could be responsible for the majority of the variance in teachers' self-reported use of recommended practices, rather than the training strategies measured in this study. Second, the large standard deviations reported for *Amount Feedback – Practices* and *Amount Feedback – Other* were problematic. Large standard deviations generally imply that variables will be bad predictors; therefore, it is unclear whether the analyses reported in this paper tell the true story about the relationships among self-reported receipt of feedback, teachers' characteristics, self-reported use of other training strategies, and self-reported use of recommended practices.

Because teachers reported receiving very little feedback, it is also possible that the majority of respondents did not reach a critical threshold at which self-reported receipt of feedback would predict self-reported use of recommended practices. Analysis of the data suggests that it is conceivable that teachers' perception of the usefulness of feedback shifted once a certain threshold was obtained. Respondents were ordered according to the number of times they reported receiving feedback about any of the recommended practices and the top 10% were selected (i.e., the 24 respondents who received the most feedback). For usefulness of feedback, the respondents who surpassed the arbitrary threshold gave a mean rating of 4.56 ( $SD = 1.18$ ) on a 6-point scale, whereas the rest of the respondents gave a mean rating of 2.34 ( $SD = 1.70$ ;  $d = 1.52$ ). These data suggest that the more feedback that is received, the more useful it is perceived. Future research should examine whether receipt of more feedback (specifically, obtainment of a critical



threshold) makes a difference in the ability to predict teachers' self-reported use of recommended practices.

Another surprising finding was that lower ratings of the usefulness of readings were associated with self-reported use of recommended practices in working with families, other teachers, and specialists, after controlling for teacher characteristics (see Table 29) and program type (see Table 31). One possible explanation for the unusual finding is that the respondents did not accurately judge the usefulness of the readings they completed. Another explanation is that the readings were useful for learning about working with other adults (i.e., the respondents accurately judged their usefulness), but teachers did not put the learning into practice. With this explanation, useful readings would appear to be weakly associated with using recommended practices in working with families, other teachers, and specialists because there is a gap between teachers' receipt of information and implementation in the classroom. Future research should further explore the relationship between the usefulness of readings and teachers' self-reported use of recommended practices in the classroom.

### Limitations

In addition to the limitation regarding the wide range of predictor scores reported above, other problems with the dataset limit the extent to which results can be interpreted and generalized. The respondents were not educationally and racially/ethnically representative. In addition, Use of Recommended Practices (the third question set) had low internal consistency and Frequency and Usefulness of Training Activities (the first question set) did not provide information about the mutual exclusivity of training events.

Finally, correlated measurement error was not assessed. These limitations are described in more detail below.

### *Lack of Representativeness*

The small sample size combined with lack of educational and racial/ethnic representativeness is problematic. As reported above, determining educational representativeness for the respondents from NAEYC-accredited centers was difficult because very few NAEYC members report their educational level. It is clear, however, that Head Start teachers with graduate degrees were overrepresented in the current study. In addition, Caucasian Head Start teachers were overrepresented and African American Head Start teachers were underrepresented.

The small sample size and lack of representativeness should not be considered a critical flaw. Although large, nationally-representative survey studies have been conducted in the field of early childhood education (e.g., the National Early Intervention Longitudinal Study, the Head Start Family and Child Experiences Survey, the Pre-Elementary Education Longitudinal Study), much of the published literature about survey research reports data from small samples. For example, Hawken, Johnston, and McDonnell (2005) obtained surveys from 273 preschool teachers working in programs registered with the National Head Start Association to assess teachers' views and practices related to emerging literacy. They used the same procedure described in the current study, basing their sampling on the percentage of children under the age of 5 living in each of the nine census regions, and ended up with a sample that lacked educational representativeness. McDonnell, Brownell, and Wolery (1997) also based

sampling on the percentage of children under the age of 5 living in each census region. They obtained surveys about teachers' experience with children with disabilities from 276 respondents working in programs that appeared on a national list of NAEYC-accredited programs. The educational achievement of respondents appeared to be different than the educational achievements of public school prekindergarten teachers and Head Start teachers. Despite the small sample sizes and lack of representativeness, however, these studies and others (e.g., Dote-Kwan, Chen, & Hughes, 2001; Nardo, Custodero, Persellin, & Fox, 2006) passed the peer-review process and were published because they report interesting data that contribute to the field's knowledge about early childhood education.

The examples above indicate that survey data obtained from small and non-representative samples are useful; small-scale studies are financially feasible and allow the field access to preliminary data that can inform future studies. The lack of representativeness in the current study, therefore, is not a critical flaw but is acknowledged as a limitation. The lack of educational and racial/ethnic representativeness means that the results of the study cannot be generalized to all teachers in the nation. The data, therefore, are preliminary; in future studies, extra effort should be made to obtain responses from more teachers (and more representative teachers) to confirm the findings presented here.

#### *Low Internal Consistency*

Use of Recommended Practices (the third question set) had low internal consistency, which prompted the use of single-item outcomes in regression analyses.

Although the use of single-item outcomes is appropriate when the content is sufficiently narrow (Ainley & Patrick, 2006; Bergkvist & Rossiter, 2007; Wanous et al., 1997), outcomes measured by multiple items are generally preferred; after all, single-item outcomes do not allow for assessment of internal consistency or construct validity (i.e., identification of latent variables). The research questions were proposed with a single outcome variable in mind, representing teachers' use of recommended practices. The need to use single-item outcomes and answer the research questions for specific practices limits the interpretation of results.

Use of Recommended Practices should have been revised substantially after the field test. (It was revised after the field test, but in retrospect it is clear that the revisions were not adequate.) Multiple items could have been used to assess each of the recommended practices. The drawback to this solution is that the questionnaire would have been longer and 46.39% of field test participants had reported that it was already *somewhat true*, *true*, or *very true* that too many items were included. Another solution would have been to conduct direct observations of teachers' use of recommended practices rather than rely on self report. The problem with this solution, of course, was lack of feasibility. A nationwide sample of 1,824 centers was solicited to participate in the study, making direct observation financially and logistically impossible. Although Use of Recommended Practices needed revision, it is unclear exactly what could have been done to improve the internal consistency of the items. Use of single-item outcomes was the best solution in this case, but development of a valid and reliable measure for quickly and easily assessing teachers' use of recommended practices would be a useful contribution to the field.

### *Possible Lack of Mutual Exclusivity*

The structure of Frequency and Usefulness of Training Activities (the first question set) did not allow respondents to report whether training events were mutually exclusive. For instance, if a respondent reported attending one workshop about behavior management and one workshop about engagement, it is unknown whether he or she attended two workshops (one about each topic) or a single workshop that addressed both topics. The structure of the question set, therefore, made interpretation difficult. For this reason, it is unknown whether using a sum to describe teachers' participation in training activities was accurate (e.g., a sum of the number of times the respondent read a book or article about behavior management, lesson planning, engagement, or working with adults) or whether a mean would have been more appropriate.

### *Use of Self-Reported Data*

Only self-reported data were used to answer the research questions. Self-reported data were appropriate because the goal of the study was to describe teachers' perceptions of the feedback they receive about their classroom practices; however, assessment of correlated measurement error was not possible. This limitation needs to be addressed in future studies by using others' report or direct observation to verify teachers' self-reported data. This verification process might limit the number of problems with the final dataset, such as the low internal consistency reported above.

Because the accuracy of teachers' self-reported data was not verified, it is unknown whether respondents were actually reporting their perceptions of the feedback they receive about their classroom practices. The questionnaire included a definition of

feedback, describing it as information received from anyone about classroom practices (i.e., what is actually done with children) rather than administrative things like teacher:child ratios. It is unknown, however, whether respondents read the definition, understood it, and avoided including instances of administrative feedback in the frequencies provided. It is possible, therefore, that all frequencies reported in this paper (intended to describe frequency of receipt of performance feedback) are inflated. The inclusion of administrative feedback in the predictor variables could also impact the results of regression analyses. Additional research is needed before the types of feedback received by teachers can be described thoroughly and differential impacts on teachers' use of recommended practices can be explained.

### Implications for the Field

Additional research should be done to determine whether the findings reported here are replicable. Because of the limitations described above, it is possible that the conclusion that self-reported receipt of feedback does not predict teachers' self-reported use of recommended practices is inaccurate. As suggested, there may be another variable that influences the relationship between self-reported receipt of feedback and self-reported use of recommended practices. Future research should address the limitations described here; specifically, larger and more representative samples should be used, the predictors and outcomes should be measured better, and others' report or direct observation should be used to enhance the data obtained from teachers.

The descriptive data reported in this paper can be used to help administrators and researchers start thinking about intervention development. According to Green, Everhart,

Gordon, and Gettman (2006), empirical data about consultation in early childhood environments are needed to determine “what consultants do, how they work with staff members, and what strategies are most important in supporting different types of desired outcomes” (p. 144). The items in Frequency of Feedback (the second question set) address one area of need proposed by Green et al. by providing information about how feedback givers work with teachers, including how often they praise the teacher, give specific examples, and cause the teacher to make changes in his or her classroom. The items also provide information about what teachers currently receive; for instance, verbal feedback is provided more often than written or graphed feedback. What is unknown, however, is whether teachers receive verbal feedback because it is what they want, because it is most effective, or because it is easiest for the supervisor or consultant to deliver. Researchers could experimentally determine which method of feedback delivery (i.e., verbal, written, or graphed) is most effective. (Although this type of work has been done [see Casey, 2008], there is not yet conclusive evidence supporting one method versus another.) Future studies could also assess teachers’ preferences for method of feedback delivery. Researchers could then experimentally determine whether the method that is preferred by teachers is efficacious, feasible, and socially valid (once it becomes a reality for teachers).

The data also suggest that Head Start teachers receive more feedback than non-Head Start teachers. Likewise, teachers in programs that have been NAEYC accredited more recently report receiving more feedback than teachers in programs that were NAEYC accredited before revised guidelines were in place. Researchers could spend more time studying the feedback structure used in Head Start and newly-accredited

programs to determine methods for packaging it and disseminating it as a feasible and self-sustaining method for supervising teachers. After all, the use of “technical assistance that is more individualized, sustained, and ‘hands on’” (Ramey & Ramey, 2004, p. 15) has been touted as the key to improving the quality of learning activities in Head Start and maximizing children’s skill development. Clearly, feedback can be useful in other early childhood programs, as well.

Based on the finding that teachers’ educational level better predicts teachers’ self-reported use of recommended practices than does the self-reported receipt of feedback, administrators and policy makers might be interested in ensuring that a high-quality workforce is in place in this country’s early childhood settings. Although it appears that well-trained teachers report using more recommended practices than teachers with less education, it is not always possible to have highly-educated teachers in the classroom. Because of this reality, the National Center for Children in Poverty has asserted that teachers without advanced degrees or training in work with children can be effective in classrooms consisting of large numbers of low-income children if they are provided with ongoing consultation and feedback that is directly related to their classroom behavior (Klein & Knitzer, 2006). Likewise, Burchinal, Hyson, and Zaslow (2008, June) contend that the training teachers receive after leaving a degree-granting program and the support that is provided in the early childhood setting are more important predictors than degree alone and are likely to lead to improved outcomes for children. The message to administrators and policy makers, therefore, is to focus efforts on identifying and providing effective professional development activities that provide teachers with



classroom-based support and result in changes in teachers' behavior and children's environments.

If the principles of adult learning theory are adhered to, professional development activities will provide teachers with opportunities to practice skills in applied settings and receive feedback (Speck, 1996, Spring). Direct experience and real-world application allow teachers to see the connection between what they are learning and its relevance to their day-to-day activities. Teachers' report that feedback is useful corroborates the theory; therefore, as administrators and policy makers focus on providing effective professional development opportunities that provide teachers with classroom-based support, they should seriously consider pairing individualized feedback with any training opportunity that is offered.

Although the conclusion that administrators and policy makers should pair individualized feedback with all training opportunities might seem premature, it is warranted. The field might not know the best method for providing feedback yet (i.e., providing teachers with data and little consultation versus providing feedback in the context of coaching), but there is no evidence suggesting that receipt of feedback has a negative impact on teachers' classroom behavior. The current study provides data showing that teachers' educational level has a small predictive effect for teachers' self-reported use of recommended practices in the classroom. It is unrealistic to think that every adult placed in an early childhood setting will be well educated; however, making sure teachers are well trained is an attainable goal. Providing teachers with knowledge applicable to their daily activities and offering support in the form of individualized feedback could very well be the pathway to achieving a well-trained workforce. Despite

the limitations in the current study, the data provided should be useful to administrators and policy makers as they start to sort out current practice in the field and needed revisions; after all, this appears to be the first study to assess teachers' perceptions of the feedback they receive about their classroom practices.

## APPENDIX A

### MATERIALS USED DURING QUESTIONNAIRE DEVELOPMENT

## Administrators' Formative Feedback Questionnaire

Dear Administrator,

As part of a federally-funded research grant, we are developing a questionnaire to assess Head Start and childcare teachers' perceptions of the feedback they receive about their classroom practices. To ensure that the questionnaire is as informative as possible, we would like your input. The questionnaire will be field tested with teachers from local Head Start programs; the results will be given to you, so your input will also ensure that the questions we ask will address the needs of these programs. Please take a few minutes to answer the following questions and email the document to [amy.m.casey@vanderbilt.edu](mailto:amy.m.casey@vanderbilt.edu). Thank you in advance for your participation!

1. What three things do teachers most **need** feedback about?
2. What three things do teachers most **want** feedback about?
3. How feasible is or isn't observation-based feedback (i.e., the provision of feedback specific to classroom practices that were observed during time in the classroom) in your program? What makes such observation difficult or easy?
4. Which teachers receive feedback in your program?
5. Who are the three types of people that are most likely to provide feedback to teachers?
6. What are the three most effective formats/mechanisms (e.g., giving verbal feedback in a brief in-class consultation, leaving written notes for the teacher) for providing feedback?
7. In your professional experience, is it more effective to give feedback by (a) comparing an individual's performance with his or her previous performance or (b) comparing an individual's performance with a program-wide standard?
8. In your professional experience, how frequently must feedback be provided in order to change teachers' classroom practices?
9. In your opinion, is feedback useful? Can teachers change their classroom practices?
10. Are there any specific questions related to feedback that you would like to see included on the questionnaire?

## Focus Group Script – December 2007

Thanks for coming to today's focus group! The purpose of the focus group is to obtain information about the supervision and feedback you receive related to your classroom practices. This will help us as we develop a questionnaire that will be sent to teachers across the country in a few months. Your opinion is important to us because you represent the people who will complete the questionnaire so you can give us an indication of whether we are asking the right questions or not.

Before we start, we want to remind you about a few things and set some guidelines so we can be as productive as possible today. First, we want to remind you that when you consented to participate you also consented to have your comments recorded. There are three people here today to lead the discussion and take notes about what is said. They might jot down some quotations if they feel that your exact words are important to remember; however, we assure you that quotations will not be linked to specific people in anything that results from this focus group.

We also want to remind you that in the consent form you signed, we promised to keep all of the information we obtain about you confidential. This means that we will not let other people see it and we will not report the results in a way that will reveal who we are talking or writing about. In other words, if the information that you share today is given to Head Start administrators it will be in a format that protects your identity and does not link individuals to specific comments.

To make it easier to facilitate the conversation and take notes, we would like to mention a few guidelines. So that everyone can give their ideas and be heard, it would be helpful if only one person answers a question at a time. But you do not have to wait for me to ask a question to speak. In fact, it will help the focus group to have as many contributions as possible—just not at the same time.

There should be no side conversations because this is distracting to everyone in the room. We have set aside two hours for this conversation, so there should be plenty of time for everyone to express their thoughts about each topic.

We want you to speak freely and honestly so we can get information about the feedback and supervision you receive. We hope that everyone will participate and want to thank you up front for your participation in the study and today's conversation.

## Example Questions

1. In the past 12 months, have you attended an in-service training or workshop?
  - a. What was it about?
  - b. Was it useful? Why or why not?
2. In the past 12 months, have you received feedback from another professional, such as a supervisor, co-worker, or consultant?
  - a. Who exactly gave you the feedback?
  - b. What kind of feedback was it – verbal, written report, something else?
  - c. What was the feedback about?
  - d. Was it useful? Why or why not?
  - e. Was the feedback based on a classroom observation? If so, did you get feedback on the same day as the observation?
  - f. Was the feedback child-specific? If so, did it focus on a child with disabilities or challenging behavior?
  - g. Did you request the feedback?
  - h. How frequently did you receive feedback in the past 12 months?
  - i. If the feedback was given in person, how long was the meeting? Did you consider this time-consuming?
  - j. Did receiving feedback disrupt your classroom?
3. Who are some of the people you wish to get feedback from? Why?
4. What kinds of topics do you most need feedback about?
5. If you need assistance, do you feel comfortable asking your supervisor for it? Is he or she usually willing to pay for the services of an outside consultant, if necessary?
6. Do you feel like you learn strategies from the other teachers in your program?
7. Do you feel like you can ask your supervisor about instructional practices and gain helpful information?

# **Feedback and Recommended Practices: Evaluation of Early Childhood Classrooms**

**(Draft Version)**

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**2008**

## **Introduction**

This questionnaire assesses your experience with a number of training activities. You will provide information about how many times you have participated in various training activities, how useful they were, and your preferences for future training activities. You will also consider the feedback you have received about your classroom practices and the feedback you would like to receive in the future. The questionnaire should take no more than 30 minutes to complete and requires you to fill in numbers and circle ratings.

## **Instructions**

Each question includes its own set of directions. Answer the questions in order, filling in blanks and circling the number that represents the rating of your choice. If the options provided do not perfectly describe you or your classroom, select the next best option.

1. For each of the following topics, tell us how many times you participated in the training activities listed. Then, rate how useful each training activity was using the following scale:

- 1 NOT AT ALL USEFUL
- 2 SOMEWHAT USEFUL
- 3 FAIRLY USEFUL
- 4 VERY USEFUL

Here is an example of how to complete the questions:

	NOT AT ALL USEFUL	SOMEWHAT USEFUL	FAIRLY USEFUL	VERY USEFUL
<b>BEHAVIOR MANAGEMENT</b>				
I attended an in-service or workshop about this topic <u>2</u> times in the past 12 months.	1	2	3	4

<b>A. BEHAVIOR MANAGEMENT</b>	NOT AT ALL USEFUL	SOMEWHAT USEFUL	FAIRLY USEFUL	VERY USEFUL
i. I attended an in-service or workshop about this topic _____ times in the past 12 months.	1	2	3	4
ii. I read a book or article about this topic _____ times in the past 12 months.	1	2	3	4
iii. I watched an educational program (television, video, DVD) about this topic _____ times in the past 12 months.	1	2	3	4
iv. Someone observed my use of the practice and gave me feedback _____ times in the past 12 months.	1	2	3	4

<b>B. CURRICULUM/PLANNING FOR SKILL DEVELOPMENT</b>	NOT AT ALL USEFUL	SOMEWHAT USEFUL	FAIRLY USEFUL	VERY USEFUL
v. I attended an in-service or workshop about this topic _____ times in the past 12 months.	1	2	3	4
vi. I read a book or article about this topic _____ times in the past 12 months.	1	2	3	4



vii. I watched an educational program (television, video, DVD) about this topic _____ times in the past 12 months.	It was (circle one)	1	2	3	4
viii. Someone observed my use of the practice and gave me feedback _____ times in the past 12 months.	It was (circle one)	1	2	3	4

<b>C. PROMOTING CHILDREN’S ENGAGEMENT/PARTICIPATION WITHIN ACTIVITIES</b>		NOT AT ALL USEFUL	SOME-WHAT USEFUL	FAIRLY USEFUL	VERY USEFUL
ix. I attended an in-service or workshop about this topic _____ times in the past 12 months.	It was (circle one)	1	2	3	4
x. I read a book or article about this topic _____ times in the past 12 months.	It was (circle one)	1	2	3	4
xi. I watched an educational program (television, video, DVD) about this topic _____ times in the past 12 months.	It was (circle one)	1	2	3	4
xii. Someone observed my use of the practice and gave me feedback _____ times in the past 12 months.	It was (circle one)	1	2	3	4

<b>D. WORKING WITH OTHER ADULTS (PARENTS, THERAPISTS, ASSISTANT TEACHERS)</b>		NOT AT ALL USEFUL	SOME-WHAT USEFUL	FAIRLY USEFUL	VERY USEFUL
xiii. I attended an in-service or workshop about this topic _____ times in the past 12 months.	It was (circle one)	1	2	3	4
xiv. I read a book or article about this topic _____ times in the past 12 months.	It was (circle one)	1	2	3	4
xv. I watched an educational program (television, video, DVD) about this topic _____ times in the past 12 months.	It was (circle one)	1	2	3	4
xvi. Someone observed my use of the practice and gave me feedback _____ times in the past 12 months.	It was (circle one)	1	2	3	4

2. The following questions are about feedback. Here, *feedback* refers to information you receive from anyone – a supervisor, another teacher in your classroom, a consultant, and so on. The information is about your classroom practices (i.e., what you actually do with children). It is **not** about administrative things like how well you complete required paperwork, your attendance, the teacher/child ratio that you keep, and so on.

If you received feedback about your classroom practices in the past 12 months, please rate each question twice: once to rate your typical experiences in the past 12 months and once to rate what you would like to happen in the next 12 months (your ideal experience). If you did not receive feedback about your classroom practices in the past 12 months, please rate each question once, to tell us how you would like to receive feedback (ideal experience), if it were offered. Please circle your ratings and use the following scale:

- 1 STRONGLY DISAGREE**
- 2 SOMEWHAT DISAGREE**
- 3 NEITHER AGREE NOR DISAGREE**
- 4 SOMEWHAT AGREE**
- 5 STRONGLY AGREE**

	Typical Experience					Ideal Experience				
	DISAGREE				AGREE	DISAGREE				AGREE
a. I received feedback after a brief classroom observation.	1	2	3	4	5	1	2	3	4	5
b. I received feedback after an extended classroom observation.	1	2	3	4	5	1	2	3	4	5
c. I received feedback on the same day as the classroom observation.	1	2	3	4	5	1	2	3	4	5
d. I received feedback about a specific child in my classroom.	1	2	3	4	5	1	2	3	4	5
e. I received feedback about a child with challenging behavior or disabilities.	1	2	3	4	5	1	2	3	4	5
f. I received written feedback; a report was given to me or placed in my mailbox.	1	2	3	4	5	1	2	3	4	5
g. I received graphed feedback; I was shown a graph that reported information about my behavior or children’s behavior.	1	2	3	4	5	1	2	3	4	5
h. I received verbal feedback; someone talked to me about my classroom.	1	2	3	4	5	1	2	3	4	5
i. I received verbal feedback in 5 minutes or less.	1	2	3	4	5	1	2	3	4	5

j. I received verbal feedback during a 30-minute meeting.	1	2	3	4	5	1	2	3	4	5
k. I received verbal feedback in a private location, where other staff members could not overhear.	1	2	3	4	5	1	2	3	4	5
l. I received coaching; someone joined me in the classroom, modeled, and provided on-the-spot feedback as I tried new things	1	2	3	4	5	1	2	3	4	5
m. I received a videotape of my teaching, reviewed it with another person, and brainstormed about things I could do differently	1	2	3	4	5	1	2	3	4	5
n. I received feedback from my supervisor.	1	2	3	4	5	1	2	3	4	5
o. I received feedback from an expert consultant.	1	2	3	4	5	1	2	3	4	5
p. I received feedback from someone with teaching experience.	1	2	3	4	5	1	2	3	4	5
q. I received feedback from someone who knows about child development and behavior management.	1	2	3	4	5	1	2	3	4	5
r. I received feedback from someone who provided a lot of praise and encouragement.	1	2	3	4	5	1	2	3	4	5
s. I received feedback by being compared to my own previous performance (i.e., how well I did in previous observations).	1	2	3	4	5	1	2	3	4	5
t. I received feedback by being compared to other teachers or program-wide standards.	1	2	3	4	5	1	2	3	4	5
u. I received feedback by getting specific examples of what I did right and how I could improve.	1	2	3	4	5	1	2	3	4	5
v. I received feedback to assist me in becoming a better teacher.	1	2	3	4	5	1	2	3	4	5
w. I received feedback to monitor program practices, to ensure all teachers are doing the same things.	1	2	3	4	5	1	2	3	4	5
x. I received feedback and made changes in my classroom or to my behavior.	1	2	3	4	5	1	2	3	4	5

3. Please circle the rating that best reflects your classroom and teaching style. There is not a correct answer; we merely want to find out how you perceive your classroom and your teaching. If you think your typical practice falls between two of the written statements, circle the rating in between.

<b>A. I most often deal with challenging behavior by</b>				
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Ignoring it (assuming children are not in danger). Children fight and they figure out their own rules.		Giving clear directions about what not to do. For instance, "Don't get that toy out."		Redirecting children; telling them what they can do. For instance, "You can play with the train or the farm set."
<b>B. My most important role as a teacher is to</b>				
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Monitor children's safety and make sure program-wide standards are met (teacher/child ratios, tooth brushing, and so on).		Play with children. We have free play all day because children learn through playing.		Carry out planned activities, making sure I have needed materials and am keeping children's interest.
<b>C. I most often encourage children to participate in the classroom by</b>				
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Having interesting toys available in the classroom and allowing them to play with them.		Planning interesting activities and helping children participate in them.		Following their lead; seeing what they are interested in and finding a way to teach in that activity.

<b>D. I typically spend time with children's families</b>				
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Only when there is a problem, such as a health or behavior concern.		During a brief check-in each morning and check-out each afternoon.		When they want to talk or I want to tell them good things about their child.
<b>E. I usually work with the other teacher(s) in my classroom by</b>				
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Asking them to help with activities I lead.		Asking them to lead activities that I have planned.		Asking them to plan and lead their own activities.
<b>F. I usually work with therapists and consultants by</b>				
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Allowing them into my classroom to work with the child.		Listening to what they have to say and then deciding whether it makes sense for my classroom		Watching them work with the child, showing them how I work with the child, and deciding together what I should do when they're not there.

4. Please rank order, from 1 to 4, how you like to receive information about classroom practices. Put a “1” next to your favorite training activity, a “2” next to your second most favorite activity, a “3” next to your third most favorite activity, and a “4” next to your least favorite training activity.

Training Activity	Rank
Attending an in-service or workshop	
Reading a book or article	
Watching an educational program (television, video, DVD)	
Receiving feedback from another person	

5. Please circle the answer that best describes you.

a. I have been a teacher

Less than 1 year      Between 1 and 2 years      Between 3 and 9 years      Between 10 and 25 years      26 years or more

b. I have been in my current teaching position

Less than 1 year      Between 1 and 2 years      Between 3 and 9 years      Between 10 and 25 years      26 years or more

c. The highest level of education that I have completed is

High school      Some college      2-year degree      4-year degree      Some graduate school      Master’s degree      Doctoral degree

d. My degree was related to early childhood education.

Not true                      True

e. I work in a Head Start program.

Not true                      True

f. I have worked with children with diagnosed disabilities

Not at all                      A little bit                      A fair amount                      A lot

g. There were children with diagnosed disabilities in my classroom in the past 12 months.

Not true                      True

h. Other adults work in my classroom for more than half the day.

Not true              True; 1 other adult works with me              True; 2 other adults work with me              True; 3 or more other adults work with me

i. I am

American Indian/Alaska Native              Asian              Black/African American              Hispanic/Latino              Native Hawaiian/Other Pacific Islander              White

**Thank you for your participation!**

## Focus Group Data That Informed Construction of Question Set 2

Each item in the question set is listed (a – x). Below the item, focus group participants' comments are provided. The comments helped inform construction of the items.

- a. I received feedback after a brief classroom observation.  
Focus group participants reported receiving 20-30 minute observations from Staff Development Coordinators. After hearing about a graphical feedback study (which included 2-3 brief observations per week), they said they would not want it. They feel like they are always being observed for something – ECERS, NAEYC standards, and so on. They do not need administrators or researchers “breathing down their necks and always evaluating them.”
- b. I received feedback after an extended classroom observation.  
A focus group participant reported that it is unfair when people come in and do a “1-second observation” without being familiar with the children, classroom routine, or daily schedule. She said that different days of the week and different situations make a difference in her behavior and the children’s behavior. She said observers need to lead up to an observation. Another participant said you cannot give suggestions about a shy child after a quick one-shot observation. The consultant has to know the child.
- c. I received feedback on the same day as the classroom observation.  
Focus group participants reported getting feedback within a week of the observation because the Area Manager has to observe everyone before calling them in for individual meetings. [This is quite different from the procedure used in studies included in Casey (2008).]
- d. I received feedback about a specific child in my classroom.
- e. I received feedback about a child with challenging behavior or disabilities.  
[This addresses a question related to Research Question 1.] Focus group participants reported needing more information about children with disabilities. They used to have someone that would come to the classroom and show them techniques for working with children with disabilities, but that person is gone. They talked about having a child with cerebral palsy and feeling like they were “winging it.” He threw up everyday, could not walk or see, and was very disruptive. They also talked about having two children with autism (one violent and one nonverbal), along with eight other children in diapers. None of the other staff members could “deal” with them, so the teachers only got a 5-minute break every now and then.
- f. I received written feedback; a report was given to me or placed in my mailbox.  
Focus group participants reported receiving a copy of a report when people from the school district come in to work with children with disabilities. The report includes “little things” they can do to work with the child, but they never get to talk to anyone about those things. [Administrators listed this as the second most effective method for providing feedback.]



- g. I received graphed feedback; I was shown a graph that reported information about my behavior or children's behavior.  
Focus group participants have only seen graphs of their attendance. [Casey (2008) indicated that graphed feedback could be quite effective, though.]
- h. I received verbal feedback; someone talked to me about my classroom.  
Focus group participants reported that they want to hear feedback, not just see it (written report or graph). [Administrators listed this as the most effective method for providing feedback.]
- i. I received verbal feedback in 5 minutes or less.
- j. I received verbal feedback during a 30-minute meeting.
- k. I received verbal feedback in a private location, where other staff members could not overhear.  
Focus group participants reported being called into the Area Manager's office for feedback [which is quite different from how feedback was provided in the studies reviewed by Casey (2008)]. They might like this, though; some teachers said they do not like it when someone comes in and undermines them right in front of the children or questions why they are doing certain activities.
- l. I received coaching; someone joined me in the classroom, modeled, and provided on-the-spot feedback as I tried new things.  
Focus group participants said if an autism consultant were available, they would want him or her to model strategies in the classroom. They also said that they need to know how to deal with multiple challenging behaviors at once. They want someone to be there with them when a situation occurs and coach them through it. [Administrators listed this as the third most effective strategy for providing feedback.]
- m. I received a videotape of my teaching, reviewed it with another person, and brainstormed about things I could do differently.  
[One administrator wondered if teachers would prefer to watch themselves on videotape and self-evaluate their performance.]
- n. I received feedback from my supervisor.  
The focus group transcripts indicate that a supervisor is the most common observer and feedback provider, but perhaps the least desired.
- o. I received feedback from an expert consultant.  
Focus group participants talked about the importance of having an experienced expert provide feedback when a child with disabilities is in the classroom. They want someone from a Special Education department to come, stay with them during the day, and show them how to do things. If an autism consultant were available, they said they would want him or her to model strategies in the classroom.

- p. I received feedback from someone with teaching experience.  
Focus group participants reported that when the feedback comes from someone who left their office and came to the classroom – they have not had to deal with the specific children and run that classroom – they do not have the right to judge and criticize. They cannot just pass on book or workshop knowledge that they have not tried out. They want someone who has experienced teaching on a daily basis.
- q. I received feedback from someone who knows about child development and behavior management.  
Focus group participants reported needing information about children with “attention span problems.” They want somebody who works with “children like that” to come into the classroom and teach. They want feedback about what they are doing and a follow-up after they have had a chance to try things on their own.
- r. I received feedback from someone who provided a lot of praise and encouragement.  
Focus group participants insisted that it is important to “not get just criticism but also praise.” They reported that the people that observe them “just want to stay up here (top of hierarchy) and keep you down here; they don’t give us encouragement.”
- s. I received feedback by being compared to my own previous performance (i.e., how well I did in previous observations).  
[One administrator thought this was the most effective strategy for providing feedback. She reported that Head Start has so many program-wide standards that constantly comparing teachers to the standards would make change seem unattainable. Some teachers would adopt the attitude that they could never meet all of the standards and give up.]
- t. I received feedback by being compared to other teachers or program-wide standards.  
[Another administrator thought this was the most effective strategy for providing feedback but did not elaborate about why.]
- u. I received feedback by getting specific examples of what I did right and how I could improve.  
Focus group participants reported that observers do not tell them if they did something right or wrong. They also said they need suggestions, not just feedback.
- v. I received feedback to assist me in becoming a better teacher.  
Focus group participants do not feel like they get feedback for their own professional development. They feel like the Central Office staff “sits at the right hand of God” and come in just to “chew” them out and see what they’re doing wrong. They report feeling incompetent when Central Office staff visits. If an expert were to come, though, they would be willing to be observed if they knew the person was not there to judge but to help them. They said they need feedback to better themselves.

- w. I received feedback to monitor program practices, to ensure all teachers are doing the same things.  
[See comments above. Also, an administrator wants to know what teachers see as the primary purpose of the feedback they receive – to monitor them or assist them in becoming better teachers.]
  
- x. I received feedback and made changes in my classroom or to my behavior.  
A focus group participant reported that her evaluations are not helpful. She's been with Head Start for 12 years and it is always the same evaluation that means absolutely nothing. (These evaluations are just paperwork to them.)

## Respondents' Questionnaire

**Amy M. Casey & R. A. McWilliam, 2008**

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Directions: Circle the rating that most accurately describes how you feel about each statement. Circle only one rating per statement.

	NOT TRUE AT ALL	NOT VERY TRUE	SOME- WHAT TRUE	TRUE	VERY TRUE
1. The questionnaire took more than 30 minutes to complete.	1	2	3	4	5
2. The questionnaire included too many questions/items.	1	2	3	4	5
3. The instructions for each question were easy to understand.	1	2	3	4	5
4. The items themselves were easy to understand.	1	2	3	4	5
5. Completing the questionnaire was a burden.	1	2	3	4	5
6. The questionnaire (title page, format) looked appealing.	1	2	3	4	5
7. The questionnaire was thorough in assessing training activities.	1	2	3	4	5
8. If given the opportunity, I would have included my contact information to be eligible for a prize drawing.	1	2	3	4	5
9. The questionnaire is appropriate for distribution to Head Start and child care teachers across the nation.	1	2	3	4	5

Additional Comments:

## Focus Group Script – February 2008

Thanks for coming to today's focus group! We have developed a questionnaire that will eventually be sent to teachers across the country. It assesses teachers' perceptions of the feedback they get about their classroom practices. During today's focus group we will be discussing the content of the questionnaire. We are interested in gathering your opinions about the questionnaire content and formatting. We want to know if we ask the right questions, how you interpret those questions, whether we need to re-word them to make more sense, and so on. Basically, we are interested in hearing your thoughts about how we can improve the questionnaire so we can make sure it is meaningful to teachers and will produce useful information. Your opinion is important to us because you represent the people who will complete the questionnaire.

Before we start, we want to remind you about a few things and set some guidelines so we can be as productive as possible today. First, we want to remind you that when you consented to participate you also consented to have your comments recorded. There are three people here today to lead the discussion and take notes about what is said. They might jot down some quotations if they feel that your exact words are important to remember; however, we assure you that quotations will not be linked to specific people in anything that results from this focus group.

We also want to remind you that in the consent form you signed, we promised to keep all of the information we obtain about you confidential. This means that we will not let other people see it and we will not report the results in a way that will reveal who we are talking or writing about. In other words, if the information that you share today is given to Head Start administrators it will be in a format that protects your identity and does not link individuals to specific comments.

To make it easier to facilitate the conversation and take notes, we would like to mention a few guidelines. So that everyone can give their ideas and be heard, it would be helpful if only one person answers a question at a time. But you do not have to wait for me to ask a question to speak. In fact, it will help the focus group to have as many contributions as possible—just not at the same time.

There should be no side conversations because this is distracting to everyone in the room. We have set aside two hours for this conversation, so there should be plenty of time for everyone to express their thoughts about each topic.

We want you to speak freely and honestly so we can get information about the feedback and supervision you receive. We hope that everyone will participate and want to thank you up front for your participation in the study and today's conversation.

## Example Questions

8. Please take a moment to read the first question on the questionnaire.
  - a. What do the instructions tell you to do?
  - b. Is there a way we can make the instructions easier to understand?
  - c. When you read that the topic is “behavior management”, what do you think of? What does the term “behavior management” mean to you?
  - d. How about “curriculum/planning for skill development”? What does that mean to you?
  - e. How about “promoting children’s engagement/participation within activities”? What does that mean to you?
  - f. Finally, what does “working with other adults” mean to you?
  - g. Look at the formatting – how the questions fit on the page, the font size, how much text is on a page, and so on. Can this be improved?
9. Please take a moment to look at the second question.
  - a. After reading the instructions, what do you think you’re being asked to do?
  - b. Can you please define what “feedback” means in this question?
  - c. Is there a way we can make the instructions easier to understand?
  - d. Please read items A through X. Which make sense and are good items? Which don’t make sense?
  - e. Look at the formatting for this question. Can it be improved?
10. Please take a moment to read the third question.
  - a. What do the instructions ask you to do?
  - b. How can they be improved?
  - c. Is circling “2” appropriate? Why/when would you do so?
  - d. Are you able to choose one number to best represent your classroom and teaching style? If not, why not?
  - e. Are items E and F relevant to you? Do you work with other teachers and therapists/consultants?
  - f. Look at the formatting. Can it be improved?
11. Please take a moment to read the fourth question.
  - a. What do the instructions ask you to do?
  - b. Would you be able to complete this question? Why or why not?
  - c. What does “feedback” mean in this question?
12. Please take a moment to read the fifth question.
  - a. Are you comfortable answering these questions?
  - b. Are the categories given appropriate?
  - c. Look at the formatting. Does it need to change?
13. Are there any questions that we needed to ask but didn’t?
14. If you received this questionnaire in the mail, would you complete it? Why or why not? How can we make the questionnaire look more appealing?

## APPENDIX B

### MATERIALS USED DURING NATIONWIDE DATA COLLECTION

# **Feedback and Recommended Practices: Evaluation of Early Childhood Classrooms**

**Amy M. Casey & R. A. McWilliam**

**Center for Child Development  
Vanderbilt University Medical Center  
3401 West End Avenue, Suite 460 West  
Nashville, TN 37203**

**2008**

## **Introduction**

This questionnaire assesses your experience with a number of training activities. We ask how many times you have participated in various training activities and how useful they were. We then ask about your experiences with one training activity in particular – receiving feedback about your classroom practices. Finally, we ask you to assess your classroom and teaching style. The questionnaire should take no more than 30 minutes to complete and requires you to fill in numbers and to circle ratings.

## **Instructions**

Each question includes its own set of directions. Please answer the questions in order, filling in blanks and circling the number that represents the rating of your choice.



1. **Frequency and usefulness of training activities.** The first item shows how to report how often you participated in training activities and how useful they were.

**HOW OFTEN** (ENTER NUMBER OF TIMES IN SPACES PROVIDED)

**HOW USEFUL** (CIRCLE ONE RATING)

**In the past 12 months,**

		NOT AT ALL USEFUL	NOT VERY USEFUL	A LITTLE USEFUL	USEFUL	VERY USEFUL	EXTREMELY USEFUL
[Example] I attended an in-service or workshop about <b>behavior management</b> <u>2</u> times.	N/A	1	2	3	4	5	6
a. I attended an in-service or workshop about <b>behavior management</b> _____ times.	N/A	1	2	3	4	5	6
b. I read a book or article about <b>behavior management</b> _____ times.	N/A	1	2	3	4	5	6
c. I watched an expert/consultant use <b>behavior management</b> skills in my classroom _____ times.	N/A	1	2	3	4	5	6
d. I received feedback about my use of <b>behavior management</b> skills (after being observed) _____ times.	N/A	1	2	3	4	5	6
e. I attended an in-service or workshop about <b>following lesson plans</b> _____ times.	N/A	1	2	3	4	5	6
f. I read a book or article about <b>following lesson plans</b> _____ times.	N/A	1	2	3	4	5	6
g. I watched an expert/consultant <b>follow lesson plans</b> _____ times.	N/A	1	2	3	4	5	6
h. I received feedback about how well I <b>follow lesson plans</b> (after being observed) _____ times.	N/A	1	2	3	4	5	6
i. I attended an in-service or workshop about <b>promoting children's engagement</b> _____ times.	N/A	1	2	3	4	5	6
j. I read a book or article about <b>promoting children's engagement</b> _____ times.	N/A	1	2	3	4	5	6
k. I watched an expert/consultant use strategies to <b>promote children's engagement</b> _____ times.	N/A	1	2	3	4	5	6
l. I received feedback about my <b>promotion of children's engagement</b> (after being observed) _____ times.	N/A	1	2	3	4	5	6
m. I attended an in-service or workshop about <b>working with adults (parents, therapists)</b> _____ times.	N/A	1	2	3	4	5	6
n. I read a book or article about <b>working with other adults</b> _____ times.	N/A	1	2	3	4	5	6
o. I watched an expert/consultant <b>work with other adults</b> _____ times.	N/A	1	2	3	4	5	6
p. I received feedback about how I <b>work with other adults</b> (after being observed) _____ times.	N/A	1	2	3	4	5	6

2. **Experience receiving feedback.** *Feedback* refers to information you received from anyone – a supervisor, a consultant, and so on. The information is about your classroom practices (i.e., what you actually do with children); it is **not** about administrative things like teacher:child ratios.

**In the past 12 months, how many times did you receive**

[Example] feedback about your classroom practices from your supervisor?	___ <u>5</u> ___ time(s)
a. feedback about your classroom practices from your supervisor?	_____ time(s)
b. feedback about your classroom practices from a consultant, including therapists?	_____ time(s)
c. feedback about your classroom practices after a brief (e.g., 15-minute) classroom observation?	_____ time(s)
d. feedback about your classroom practices after a long (e.g., 1-hour) classroom observation?	_____ time(s)
e. feedback about your classroom practices on the same day as the classroom observation?	_____ time(s)
f. feedback about a child with challenging behavior or disabilities?	_____ time(s)
g. written feedback (i.e., a report was given to you or placed in your mailbox)?	_____ time(s)
h. graphed feedback (i.e., you were shown a graph that reported information about your behavior or children’s behavior)?	_____ time(s)
i. verbal feedback (i.e., someone talked to you about your behavior or children’s behavior)?	_____ time(s)
j. coaching (i.e., someone came to your classroom, modeled specific practices, and provided on-the-spot feedback as you tried new things)?	_____ time(s)
k. feedback about your classroom practices from someone with teaching experience?	_____ time(s)
l. feedback about your classroom practices from someone who provided a lot of praise and encouragement?	_____ time(s)
m. feedback that compared you to your own previous performance (i.e., how well you did in previous observations)?	_____ time(s)
n. feedback that compared you to other teachers or program-wide standards?	_____ time(s)
o. feedback with specific examples of what you did right and how you could improve?	_____ time(s)
p. feedback that caused you to make changes in your classroom or to your own behavior?	_____ time(s)

3. **Classroom and teaching style.** CIRCLE ONE NUMBER PER ITEM. There is not a correct answer; we just want to find out what you think about your classroom and your teaching. If two statements describe you (sometimes you do one and sometimes you do the other), circle the number in between.

<b>a. I most often deal with problem behavior by</b>						
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Giving clear directions about what not to do. For instance, “Don’t yell.”		Taking away privileges or tokens (e.g., gold stars).		Redirecting children by giving them a choice. For instance, “You can color or play with the blocks.”		Applying a behavior management plan to teach appropriate behavior.
<b>b. My most important role as a teacher is to</b>						
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Monitor the classroom. I make sure children are safe and program-wide standards are met (teacher:child ratios, tooth brushing, and so on).		Play with children. We have free play most of the day, allowing children to learn through play without strict plans or goals.		Plan activities and carry them out. I make sure children stay engaged and have the materials they need.		Plan activities with children’s individualized goals in mind. When I carry them out I make sure children are engaged and meeting their goals.
<b>c. I most often encourage children to participate in the classroom by</b>						
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Having interesting toys available and allowing children to play with them.		Showing children one way to play with available toys and seeing if they do it themselves.		Planning interesting activities that use available toys in multiple ways.		Teaching children to use toys in new ways based on their interests within planned activities.
<b>d. I typically spend time with children’s families</b>						
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Only when there is a problem, such as a health or behavior concern.		During special events, such as Back to School Night or parent-supervised field trips.		During a brief check-in each morning and check-out each afternoon.		When they want to talk or I want to tell them good things about their child.
<b>e. I usually work with the other teacher(s) in my classroom by</b>						
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Asking them to take care of extra activities – cleaning, helping with bathroom breaks, and so on.		Asking them to help with activities I lead.		Asking them to lead activities that I have planned.		Asking them to plan and lead activities.
<b>f. I usually work with therapists and consultants by</b>						
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Allowing them to take children out of the classroom for therapy or instruction.		Allowing them into my classroom to work with the child.		Allowing them into my classroom and listening to their suggestions. I then decide whether it makes sense for my classroom.		Watching them work with the child in the classroom, showing them what I do, and deciding together what I should do when they’re not there.

4. **Information about you.** CIRCLE THE ONE ANSWER FOR EACH ITEM THAT BEST DESCRIBES YOU.

a. I would like to receive specific feedback about my performance as a teacher.....	daily	weekly	monthly	every 6 months	yearly	never	
b. I am a.....	lead teacher	assistant teacher					
c. The highest level of education I have completed is.....	high school	some college	2-year degree	4-year degree	some graduate school	Master's degree	doctoral degree
d. My degree was related to early childhood education.....	not true	true					
e. For the majority of the day, I work with.....	infants/toddlers	3-year-olds	4-year-olds	5-year-olds	mixed-age preschoolers (3-, 4-, and 5-year-olds)		
f. I have worked with children with diagnosed disabilities.....	not at all	a little bit	a fair amount	a lot			
g. There were children with diagnosed disabilities in my classroom in the past year...	not true	true					
h. Other adults work in my classroom for more than half the day.....	not true	true; 1 other adult works with me	true; 2 other adults work with me	true; 3 or more other adults work with me			
i. I work in.....	a Head Start center	a center that became NAEYC accredited after October 2006	a center that became NAEYC accredited before October 2006	none of the options			
j. (Required for grant reports.) I am.....	American Indian/Alaska Native	Asian	Black/African American	Hispanic/Latino	Native Hawaiian/Other Pacific Islander	White	Other
k. I have been a teacher.....	_____ year(s)						
l. I have been in my current teaching position...	_____ year(s)						

**THANK YOU FOR YOUR PARTICIPATION!**

**If you would like to be eligible for the prize drawing, please provide the information requested on the back page.**

**If you would like to be eligible for the prize drawing, please provide your contact information.**

**Remember, this is OPTIONAL!**

Name: \_\_\_\_\_

Street Address: \_\_\_\_\_

City, State, Zip Code: \_\_\_\_\_

## Cover Letter for Center Directors – First Mailing

Dear Center Director:

The purpose of this letter is to tell you about a research project being conducted through the Center for Child Development at Vanderbilt University Medical Center. The goal of the research project is to describe teachers' perceptions of the training and feedback they receive about their classroom practices.

You received the enclosed information because your center was randomly selected from a list of all Head Start and NAEYC-accredited centers in the country. Now, you have the right to decide whether the teachers in your center should be asked to participate or not. Participation involves completing the attached questionnaire and returning it to me in the envelope provided. The questionnaire asks about the training and feedback teachers have received in the past 12 months about four early childhood teaching strategies. It should take about 30 minutes to complete. Teachers do not have to include their contact information unless they want to be entered into a drawing to receive a \$25 gift card. I ensure participants' confidentiality. If teachers provide their name and address, it will be used for the prize drawing only. Teachers' responses will not be linked to their name or your center in my records. Furthermore, any data I publish or present will describe the entire group of respondents. A total of 5,472 questionnaires are being sent to teachers across the country; participants' responses will not be individually identifiable or linked to centers or programs in anything I print or present.

If you give permission for teachers in your program to participate in this research project, please give one of the enclosed packets to each lead teacher of 3-, 4-, or 5-year-olds that has been employed at your center for 12 months or more. The teachers can then decide if they want to participate.

If you have any questions about the rights of research participants, please contact the Institutional Review Board of Vanderbilt University at (615) 322-2918, or toll free at (866) 224-8273. If you have any questions about the research study itself or need me to send additional questionnaires, please contact me at (615) 936-3986 or [amy.m.casey@vanderbilt.edu](mailto:amy.m.casey@vanderbilt.edu).

Yours sincerely,

Amy M. Casey  
Study Coordinator

## Cover Letter for Teachers – First Mailing

Dear Teacher:

The purpose of this letter is to tell you about a research project being conducted through the Center for Child Development at Vanderbilt University Medical Center. The goal of the research project is to describe teachers' perceptions of the training and feedback they receive about their classroom practices.

You received this packet of information because your center director approved your participation in this research project. You have the right to decide whether you want to participate or not. To participate, please complete the attached questionnaire and return it to me in the stamped, addressed envelope that I provided. The questionnaire asks about the training and feedback you have received in the past 12 months about four early childhood teaching strategies. It should take about 30 minutes to complete. You do not have to include your name or the name of your center unless you want to be entered into a prize drawing. Sixteen teachers who provide their name and address will be randomly selected to receive a \$25 gift card. If you want to participate, please complete and return the questionnaire within two weeks.

If you do not want to answer some of the questions on the questionnaire you may leave them blank. Also, know that you do not have to participate in this research project. If you decide not to participate it will not affect your employment or standing with your director. If you decide not to participate, please disregard this letter and dispose of the questionnaire.

You have rights as a research participant. I ensure your confidentiality. If you provide your name and address, it will be used for the prize drawing only. Your responses will not be linked to your name in my records. Furthermore, any data I publish or present will describe the entire group of respondents. You are one of 5,472 teachers that have been asked to participate in this study; your responses will not be individually identifiable in anything I print or present. If you ever feel your rights have been violated—that I have not done the right thing, including what I say in this letter—or if you have any questions about your rights as a participant, please contact the Institutional Review Board of Vanderbilt University at (615) 322-2918, or toll free at (866) 224-8273. If you have any questions about the research study itself, please contact me at (615) 936-3986 or [amy.m.casey@vanderbilt.edu](mailto:amy.m.casey@vanderbilt.edu).

Yours sincerely,

Amy M. Casey  
Study Coordinator

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