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ABSTRACT

This report summarizes the activities of the SIFT-OUT program, a federally funded project designed to prepare teams of university faculty, family members, practitioners, and agency representatives from six states, to serve as leaders in providing early intervention training in their states. A total of 166 state-level early intervention leaders with personnel preparation responsibilities and 92 interdisciplinary team members from Idaho, New Mexico, Texas, Indiana, Ohio, and North Carolina participated directly in SIFT-OUT activities. Documented benefits of participation included: (1) statistically significant increases in faculty knowledge and skills in early intervention content and training strategies; (2) greater faculty commitment to participation in community-based inservice and technical assistance activities; (3) preservice and inservice training that is of higher quality; and (4) increased linkages among state agencies, institutions of higher education, and consumers for personnel preparation at the state level. Leaders in the six participating states have identified the SIFT-OUT project as a catalyst for positive changes that will endure, changes such as: family involvement; increased interdisciplinary preparation; establishment of standards; and increased campus-community collaboration. The report discusses the project's accomplishments, dissemination activities, challenges, evaluation results, and impact. An appendix includes preservice and inservice personnel preparation quality indicators. (Contains 37 references.) (CR)

SIFT-OUT: Training for Systems Change in Early Intervention

FINAL REPORT

Early Education Programs for Children with Disabilities
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ABSTRACT

One of the greatest challenges facing states as they work to implement the early intervention legislation is ensuring that there is an adequately trained cadre of professionals able to provide quality services to young children and their families (Harbin, Gallagher & Batista, 1992; Safer & Hamilton, 1993; Szanton, 1993). Because of the emphasis in early intervention legislation on new content areas and service delivery approaches not typically covered in professional training programs (Bailey, Simeonsson, Yoder & Huntington, 1990), states are under tremendous pressure to develop strategies for delivering up-to-date and relevant training to large numbers of individuals across multiple disciplines at both preservice and inservice levels. Higher education faculty are key players in addressing personnel preparation issues.

SIFT-OUT prepared teams of university faculty, family members, practitioners, and agency representatives from six states to serve as leaders in providing early intervention training in their states. This project replicated a validated systems change model that had been developed implemented, and evaluated in 15 southeastern states. The specific goals of this project were: (1) to facilitate linkages among institutions of higher education, families, and agencies (community, state); (2) to increase higher education faculty members' knowledge and skills related to innovative, family-centered, interdisciplinary early intervention content and instructional strategies; and (3) to assist faculty in applying what they learn to the preservice and inservice training they provide to others. Critical features of the implementation plan for carrying out this project included the following: (1) generating support and a vision for early intervention personnel preparation from state leaders; (2) identifying state and individual needs related to that vision; (3) providing faculty with information and training experiences designed to meet those needs; (4) facilitating the development of action plans related to improving the quality of future personnel preparation activities; and (5) providing technical assistance in support of the action plans.

Three initial states (Idaho, New Mexico, Texas) were identified in the SIFT-OUT proposal; two additional states (Indiana, Ohio) were selected through a national solicitation process. A team from North Carolina participated in each of the two SIFT-OUT institutes at the expense of the state, bringing the totals to six states and seven teams. A total of 166 state-level early intervention leaders with personnel preparation responsibilities and 92 interdisciplinary team members (faculty, family, practitioners, agency representatives) participated directly in SIFT-OUT activities. Documented benefits of participation included: (1) statistically significant increases in faculty knowledge and skills in early intervention content and training strategies; (2) greater faculty commitment to participating in community-based inservice and technical assistance activities; (3) preservice and inservice training that is of higher quality; and (4) increased linkages among state agencies, institutions of higher education, and consumers around personnel preparation at the state level.

Leaders in the six participating states have identified the SIFT-OUT project as a catalyst for positive changes that will endure. These include: increased family involvement (e.g., collaborative planning, implementation, and evaluation of courses, co-instruction, family practica); increased interdisciplinary preparation (e.g., implementation of an interdisciplinary early intervention minor, team teaching, shared practica); establishment of standards (e.g., implementation of a non-categorical Blended Birth Through Third Grade Certificate); dissemination of new methods and materials for addressing early intervention content (e.g., interdisciplinary inservice presentations, higher education symposia, module development); and increased campus-community collaboration (e.g., Part C mini-grant support for community-based practica; practitioner involvement in course development and delivery).

GOALS AND OBJECTIVES

The three broad goals and accompanying objectives of the SIFT-OUT project were:

Goal I: To facilitate the progress of states in implementing the personnel preparation component of Part C by facilitating linkages among institutions of higher education, families, practitioners, and community/state agencies around early intervention personnel preparation

Objective 1: To identify the State Leadership Training Teams (SLTT) in each Year 1 state
Objective 2: To identify a participant from each state who will serve as a state liaison with SIFT-OUT for purposes of planning, coordination, and data collection
Objective 3: To conduct a planning and information-sharing meeting with the SLTT in each of the states, facilitated by a SIFT-OUT staff member
Objective 4: To summarize and analyze the information from the SLTT meetings and share that information with the SLTT members
Objective 5: To share information about innovative training resources, materials, and activities with the SLTTs over the three-year funding period
Objective 6: To repeat this sequence with a new group of outreach states, including data analysis across all states

Goal II: To increase higher education faculty members' knowledge and skills related to providing effective, innovative, family-centered, interdisciplinary early intervention training

Objective 1: To identify and support the involvement of a state team from each of the three states that will participate in the Year 1 SIFT-OUT institute
Objective 2: To conduct a needs assessment with team members identified to participate in the Year 1 SIFT-OUT institute
Objective 3: To develop the program for the Year 1 SIFT-OUT institute
Objective 4: To identify and secure resources related to the Year 1 SIFT-OUT institute
Objective 5: To implement the Year 1 SIFT-OUT institute
Objective 6: To evaluate the impact of the Year 1 SIFT-OUT institute
Objective 7: To implement Objectives 1-6 with a new group of outreach states, including data analysis across all states

Goal III: To assist faculty in embedding state-of-the-art information related to early intervention content and instructional strategies into the training they provide to others

Objective 1: To disseminate on an ongoing basis needed training materials and information to state teams after the institute
Objective 2: To facilitate the planning of a follow-up meeting between the state team and the SLTT in each state within a month of the institute
Objective 3: To provide the SLTT and the state team with an opportunity six months after the institute to jointly assess progress on the state plan developed at the institute, and to revise goals and/or establish new goals
Objective 4: To evaluate the implementation of technical assistance plans generated by SIFT-OUT states

CONCEPTUAL FRAMEWORK FOR THE PROJECT

The SIFT Project, a precursor to SIFT-OUT, was based on a conceptual framework derived from the literature on systems change. The approach taken in the SIFT Project was ecological, individualized and designed to produce documented, long-lasting, meaningful changes in early intervention personnel preparation based on the specific and individual needs of each of the participating states. The core values of the project included commitments to diversity, interprofessional participation, family-centered approaches, a comprehensive system of personnel development, and an appreciation for existing initiatives. SIFT-OUT was conceptualized as an outreach application of the SIFT project. It refined and expanded the model to six states outside the southeastern region. An additional, significant change in the outreach model was the opportunity for states to focus partially or exclusively on strategies for supporting changes in preservice personnel preparation. The conceptual framework and research base for SIFT-OUT are described in detail in the next section.

DESCRIPTION OF TRAINING MODEL, ACTIVITIES, AND PARTICIPANTS

The SIFT-OUT systems change model consisted of six component parts, as illustrated in Figure 1. The rationale and research base supporting each component follows.

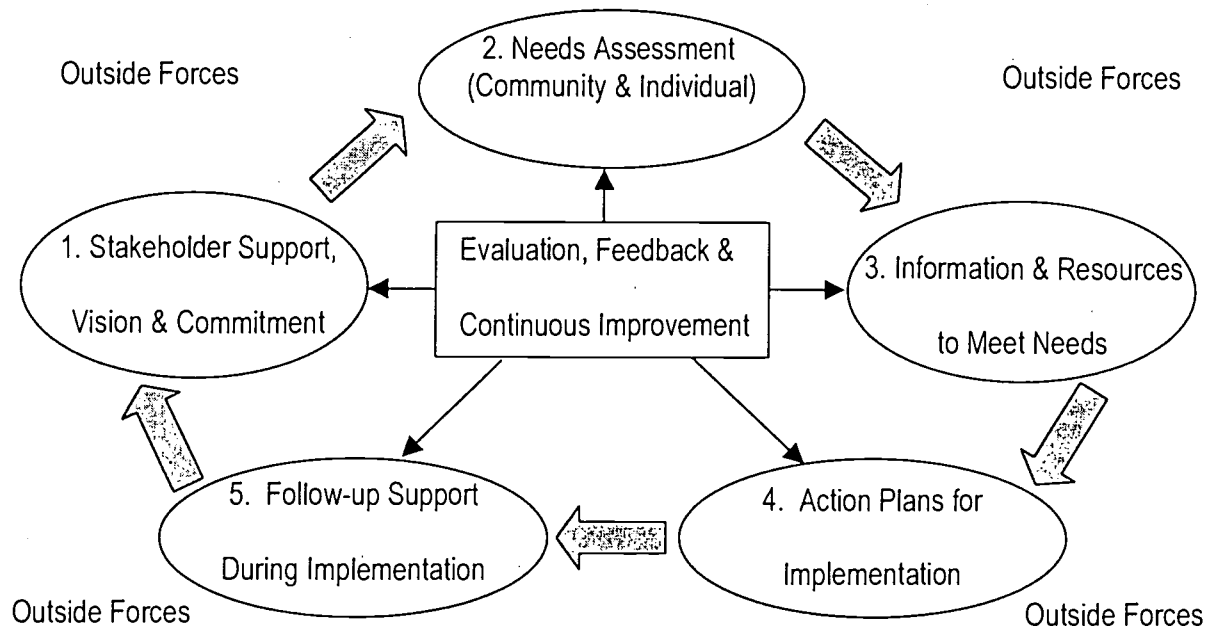

Figure 1. SIFT-OUT Systems Change Model

Part 1. Stakeholder Support and Vision

One of the challenges in implementing a regional model of faculty training is being responsive to the unique and diverse needs and priorities of states. A systemic change model that does not build on and enhance existing early intervention personnel development efforts and is not supported by key personnel who hold power, money, and authority at administrative levels is unlikely to be effective (Georgiades & Phillimore, 1975; Pizzo, Griffin, Keith, Argenta, & Szanton, 1993; Winton, 1990). Without administrative support, individuals receiving training in innovative content and instructional strategies may find

themselves unable to implement these new ideas in their natural teaching, training, and planning contexts.

Identifying and involving key state-level early intervention stakeholders was the first step in the process. From the SIFT model we had learned the importance of having a "knowledge navigator" (liaison) to facilitate our interactions with states. Each participating state was therefore asked to identify an individual or individuals with time, resources, and interest to invest in serving as a liaison to SIFT-OUT. Five of the six states selected a single individual with statewide personnel preparation responsibilities (e.g., Part C coordinator, Part C CSPD coordinator, Part C personnel preparation consultant). The sixth state identified a liaison trio, representing higher education, the University Affiliated Program (UAP), and a local agency. Liaisons were asked to identify a stakeholder group or State Leadership Training Team (SLTT). Based on guidance provided by SIFT-OUT, each state's SLTT was a group of key early intervention (0-5) representatives with expertise, power, and resources, drawn from across agencies, disciplines, and institutions within the state. Family representation and cultural diversity were also required on each SLTT. In most states, a group of this description already existed in the form of an Interagency Coordinating Council (ICC) or other personnel preparation committee. In those states, the liaison(s) used the SIFT-OUT opportunity to invite "new blood" to join the group or to engage key persons with preservice interests.

The initial 1-1/2 day SLTT meeting was designed to accomplish several objectives. First, it was an opportunity to identify all of the existing personnel preparation initiatives that were taking place within a given state. In several states the number of initiatives was impressive; however, the lack of coordination and collaboration among the various efforts was frequently problematic. Frequently states had very sophisticated inservice personnel preparation work underway but had not targeted resources or attention to preservice efforts. In several states, higher education training initiatives in early intervention were not coordinated with Part C. The second purpose of the meeting was to enable stakeholders to exchange information about personnel preparation priorities, including current and planned. This background enabled stakeholders to prioritize desired changes in personnel preparation that were either enhancements of current efforts or new areas for improvement, and to avoid duplication of efforts. Sample priorities for SIFT-OUT states are listed in Table 1.

The third purpose of the meeting was to identify the "travel team" of faculty, family members, practitioners, and state agency representatives, that would represent the state at the SIFT-OUT institute and delineate plans for addressing the SLTT priorities. SIFT-OUT required that states select a team that represented multiple disciplines, cultural diversity, and family members. Lead agency representation (Part C) was required, and 619/Part B representation was encouraged to support continuity and collaboration. SLTT members within each state were also given a chance to identify additional selection criteria that fit with their vision or plan for their state. Examples of criteria identified by states included geographical representation, willingness on faculty's part to devote a certain number of days to inservice training, and linkages with existing state training initiatives. The team configuration utilized by each state is described in Table 1.

Table 1. SIFT-OUT PERSONNEL PREPARATION PRIORITIES & TEAM CONFIGURATION BY STATE

STATE	PERSONNEL PREPARATION PRIORITIES	TEAM CONFIGURATION
IDAHO	• Increase family involvement in preservice and inservice training across disciplines • Provide training to physicians (preservice, inservice) on Part C content areas, including family-centered practices • Increase coordination between preservice and inservice training	• Organized in three clusters, representing the three major institutions of higher education (Idaho State University, University of Idaho, Boise State University). • Each cluster had family and practitioner representation. • Faculty included a physician to support goal of providing training to physicians.
INDIANA	• Increase family involvement and family content in preservice training • Increase interdisciplinary focus in preservice training • Increase correlation between preservice learning experiences and credentialling.	• Faculty from multiple disciplines and institutions, family members from several parts of the state, practitioners, and representatives of two state agencies (Education, Part C)
NEW MEXICO	• Increase training that supports desired systems changes (e.g., increase family involvement in training, design training that offers credit for life experiences, increase emphasis on cultural diversity) • Increased emphasis on 0-3 issues in preservice training	• Organized in three clusters with faculty members and a family member in each cluster. • One cluster focused on preservice preparation for medical personnel, one on allied health personnel, and one on education personnel • Faculty were selected for their links to major state initiatives
NORTH CAROLINA TEAM 1	• Develop strategies for increasing early intervention coursework and clinical opportunities for allied health (occupational therapy, physical therapy, speech-language pathology) students • Increase linkages between higher education programs and state Early Intervention Training and Technical Assistance System (EITTAS) consultants	• Higher education faculty from five allied health preservice programs formed the team, along with EITTAS consultants and the Part C CSPD coordinator
NORTH CAROLINA TEAM 2	• Enhance the quality of preservice practica experiences for students preparing to work with children aged 0-5 and their families	• Higher education faculty from six universities offering birth-through-kindergarten licensure, as well as family and Part C CSPD representatives
OHIO	• Increase cross-disciplinary/interdisciplinary focus in preservice training • Increase collaboration between universities and communities in training students • Increase family involvement in all aspects of preservice training (design, delivery, evaluation)	• Team organized in five clusters (faculty, family, practitioner) from different geographic regions of the state
TEXAS	• Encourage family and provider involvement in training • Expand the knowledge of higher education faculty with regard to family-centered early intervention	• Clusters (faculty, family, practitioner) drawn from five areas of the state to take different approaches to addressing priorities

A variety of methods was used by states to determine "travel team" membership. Several states had a sub-group meet on the day following the SLTT meeting to make selections. One state had family-faculty-practitioner clusters apply together. Yet another used the sub-group process to identify faculty and practitioner representatives and used a self-application process to identify the family representatives. In each case, guidance from SLTT members regarding priorities played an important part in the make up of each team.

A critical step in the model was conveying to the faculty why they were selected, what the expectations of them were from the state level, and what the state priorities were that they were being asked to assist in addressing. A strategy that had proved very effective in supporting faculty participation in the previous SIFT project was sending "boss/dean" letters on their behalf to administrators or supervisors of their choosing. These letters described the SIFT project and highlighted the unique leadership opportunity being available for the faculty member from their university. These "boss/dean" letters proved important in legitimizing faculty participation in state-wide training efforts and assisting faculty in obtaining travel support from their universities to attend a four day faculty training institute developed and implemented by the SIFT Project. Based on the effectiveness of the "boss-dean" letters in the SIFT project, 125 "boss/dean" letters were individually crafted for members of SIFT-OUT teams, again with excellent results (e.g., travel for all participating faculty members was supported from within their institutions).

Part 2. Needs Assessment (Community and Individual)

A key factor in designing effective training is ensuring that the training is responsive to the perceived needs of the trainees (Griffin, 1983; Kealoha & Haase, 1988; Stein & Wang, 1988). As soon as the "travel teams" were selected, they were asked to respond to a needs assessment measure related to content areas, instructional strategies, and resources to which they would like exposure in order to enhance their ability to provide early intervention training to others. The results of this needs assessment, as well as the state priorities identified by the leaders from the six states, shaped the design and content of the SIFT-OUT institute.

Part 3. Infusion of Information and Resources to Meet Needs

An important consideration in assessing training needs is the extent to which it is possible to respond effectively to the needs that are identified. In his review of the literature on staff development and the process of change, Guskey (1986) made the point that it is better not to collect needs assessment information if the needs cannot be addressed, simply because of the negative feelings that participants have when they feel that they took the time to share their needs and the information was ignored. Therefore, based on the state and individual needs, a four day intensive training event, the SIFT-OUT institute was planned. The following were key features of this event:

- Instructional Sessions – During the four day SIFT-OUT institute, 30-35 different instructional sessions (lasting from 1 -2 1/2 hours) were provided. They were organized around the priorities of participating states and the content areas that participants identified through the needs assessment. Sessions were facilitated by expert consultants who were chosen for both their knowledge of the content area and their reputations as experienced trainers in those areas. Whenever possible, sessions were co-facilitated to model interdisciplinary and family-professional collaboration. Rather than the traditional content-focused emphasis, the sessions were organized around how to train others about the particular content area. A variety of innovative instructional strategies, re-

flecting principles of adult learning (Brookfield, 1993; Garrison, 1992; Knowles, 1980) and with a particular focus on strategies that were prioritized on the needs assessment, were demonstrated. For instance, any one session might feature strategies that ranged from interactive activities and cooperative learning to backwards brainstorming or video clips. At the end of each session, opportunities were provided for participants to discuss strategies they saw modeled and how they might use them.

- Interactive Library and *Resource Guide* – In response to needs assessment data indicating that access to training materials was a priority for faculty, an interactive library of innovative, family-centered, interdisciplinary early intervention training resources was created. These materials were transported to the SIFT-OUT institute and were organized by content area in a large room reserved for this purpose. Chairs, tables, portable VCR's, and time were available so participants could explore these resources in depth. In addition, the materials were catalogued in an accompanying *Resource Guide* (Catlett & Winton, 1999) that included a brief description and ordering information. What is notable about this collection of materials is that many are not commercially available and therefore, are not widely marketed or known to faculty. The majority were developed through grant funded projects and thus available at reasonable purchase prices. (NOTE: The 5th (1996) and 6th (1997) editions of the *Resource Guide* were revised and produced for SIFT-OUT participants. The 8th edition (1999) of this annually updated *Guide* is available online at <www.fpg.unc.edu/Publications/Rguide/rguide.pdf>. Special collections that were included in the library included course syllabi, materials that have been translated into Spanish, and measures for evaluating training outcomes.)

- Team-Building, Planning and Networking Time – Participants indicated on the needs assessment that access to other faculty providing early intervention training was a resource that would help them in their training roles. Therefore, 8-10 hours during the SIFT-OUT institute were dedicated as team building and planning time. A large portion of this time was devoted to meetings of each state's "travel team" that focused on developing plans for addressing the early intervention personnel preparation priorities identified by the leaders in their states. This time also provided a natural context for sharing ideas and expertise across disciplines, agencies, and institutions within their state. Time was also set aside for "issue" sessions at which participants from all states could convene around a special topic of interest to them.

Part 4. Encouraging Practical Application of Ideas through Action Planning

The importance of linking the information being conveyed in training to real life practices and experiences is another component that has been described as critical to the successful training experience (Pizzo, Griffin, Keith, Argenta, & Szanton, 1993; Winton, McWilliam, Harrison, Owens, & Bailey, 1992; Fullan, 1982; Hall & Hord, 1987; Havelock & Havelock, 1973; ZERO TO THREE/National Center for Clinical Infant Programs, 1991). Examples of the strategies used during the SIFT-OUT institute to promote and model this concept follow.

- Making instructional materials accessible. One strategy for making the materials accessible was to provide every participant with a handout set from each instructional session. The handouts were designed so participants could use them in their own training. For example, if a session facilitator used an overhead, a hard copy of the overhead was included in the handouts. Session facilitators also made extensive use of

the instructional materials in the interactive library as a way of acquainting faculty with those resources.

- Identifying short term goals. Another strategy for encouraging practical applications was to ask participants to identify specific goals that they wanted to accomplish during the four day faculty training institute. On the first of the four days, participants were asked to write their personal goals on "Post-it" notes and place them in a strategic location that enabled them to check on their progress during the four days. As part of their orientation to the four day schedule of activities, they were reminded that the time was theirs to spend in whatever ways would enable them to accomplish their objectives. Scheduled independent time, planned variety in the instructional sessions, and opportunities to schedule sessions around topics of interest to them were all ways of conveying that participants were in charge of their own learning; the SIFT-OUT staff and invited facilitators had structured the event in a way that was flexible and responsive to adult learners (Garrison, 1992). This strategy helped the participants focus on the aspects of the training experience that had the most practical application for them.

- Identifying long-term goals. Another strategy was to request that participants develop a specific plan for how they would use what they had learned or experienced at the SIFT-OUT institute back in their states. This planning process took place both at a state level and at an individual level. Each state team was asked to develop a state action plan that provided timelines, objectives, and denoted responsibilities related to addressing state priorities. In addition to state plans, participants were asked to develop individualized "Back Home" plans, that specified personal objectives related to preservice or inservice early intervention training that were inspired by their SIFT-OUT experience. Some examples of personal goals identified included: (a) revising assessment courses to include family-centered content, (b) inviting parents to present or co-instruct, and (c) inviting colleagues from other disciplines to plan and implement a workshop. Participants were also provided with two documents: the "Checklist of Quality Indicators Related to Early Intervention Inservice Training" and the "Checklist of Quality Indicators Related to Early Intervention Preservice Training" (see Appendix A) which served as both checklists to use when they were planning training and as reminders of what they might advocate for when they participated in policy or planning groups.

Part 5. Providing Follow-up Support and Technical Assistance

Providing follow-up support and technical assistance is regarded in the literature as a critical component to ensuring application of learning (Wolfe & Snyder, 1997). The SIFT project provided ongoing support for a period of six months after the training institute. Project evaluation confirmed that six months is a very short time within which to achieve (or expect to achieve) systemic change. For this reason, SIFT-OUT implemented several changes in the sequence of follow-up support. First, SIFT-OUT extended the follow-up period to eighteen months. States were required to participate in one face-to-face meeting six months after the SIFT-OUT institute and a second meeting 12-18 months after the institute. The first meeting provided an opportunity for "travel team" members to recap what they learned at the SIFT-OUT institute and review progress on their plans for change with the leaders (SLTT and others) in their states. Participants in that meeting were asked to evaluate the success of the state plan, to identify barriers and facilitators related to accomplishing the plan, and to identify "next steps" in terms of early intervention personnel preparation in the state. This meeting also provided an opportunity to discuss how to use

the $3,000 mini-grant provided to each state by SIFT-OUT to support progress on state plans.

The second meeting, which also brought together "travel team" members and SLTT members, was designed to provide updates on state plans and a thoughtful forum for discussion of institutionalizing SIFT-OUT efforts. So often when grant-funded projects end, the innovations or efforts that were being promoted dissipate or disappear. A case in point is research on the fate of ten interdisciplinary early intervention preservice programs studied by Rooney (1994). At the end of the funding period, 9 out of 10 had reverted to traditional training programs; the interdisciplinary aspects had vanished without the grant support.

A third follow-up support strategy was the ongoing technical assistance through telephone contact, e-mail contact, and newsletter exchange provided to all participants. This support was available to SLTT members and travel team members throughout the three-year grant period. At this time over 1,500 individuals are on the SIFT-OUT mailing list, reflecting, in part, the interest of deans, chairpersons, and other administrators who have requested information as a result of exposure to SIFT-OUT through boss/dean letters. SIFT-OUT has responded to over 5,000 requests for technical assistance over the life of the project, most of which have focused on brainstorming with participants about activities, resources, and strategies related to teaching and/or training they are planning.

Part 6. Evaluation Strategy

Evaluating the effectiveness of personnel preparation model programs presents significant challenges. Evaluation must take place at several levels and look at proximal as well as distal outcomes. In addition, evaluation strategies must be able to take into account the individual and state priorities and individual differences in terms of identified outcomes. As illustrated in Figure 1, evaluation took place at and throughout every phase of implementation. Data are presented and findings discussed in the Evaluation Findings section of this document, which follows Methodological or Logistical Problems.

METHODOLOGICAL OR LOGISTICAL PROBLEMS

All modifications to the original project design could more accurately be described as program improvements rather than problems. Based on differences between the requested level of funding and the actual level of funding, SIFT-OUT could not accommodate the number of states originally targeted (3 in each of two groups for a total of 6). However, North Carolina's Part C office asked for the opportunity to pay for a team to participate in each of the two SIFT-OUT institutes. As a result, the actual number of states in each cohort (ID, NC, NM, TX in the first; IN, NC, OH in the second) exceeded the number targeted.

A second challenge came with the discovery that states took far longer to implement plans and decide how to spend their SIFT-OUT mini-grants than anticipated. This need for an extended period of planning was supported by a no-cost extension of the SIFT-OUT project and budget periods.

EVALUATION FINDINGS

Outcomes from SIFT-OUT, documented through multi-method data collection strategies, indicate that the model was effective. Highlights from these data are provided as they relate to the three project goals.

Goal I: To facilitate the progress of states in implementing the personnel preparation component of Part C by facilitating linkages among institutions of higher education, families, practitioners, and community/state agencies around early intervention personnel preparation

As mentioned previously, identifying key stakeholders or SLTT members was an initial activity of the project. The approach to this task was to ask the liaison(s) in each state to identify a group of key people to be invited to a 1-2 day state meeting. Each SLTT meeting was designed to accomplish the following objectives: (1) to identify all of the existing personnel preparation initiatives in the state; (2) to facilitate the sharing of perspectives and identify priorities for future personnel preparation initiatives in the state; and (3) to identify a "travel team" of 12-15 individuals (faculty from institutions of higher education, family members, practitioners, agency representatives) whom they felt could help the state accomplish their plans for personnel preparation after receiving four days of training (SIFT-OUT institute) and ongoing support from the SIFT-OUT project. This group of leaders (n=166 total across the 5 states with a range of 22-42 in the stakeholder group within each state) met three times over an 18 month period. They met at the beginning of the project to accomplish the above objectives; and they met six months after the faculty training institute to evaluate progress and assess the success of the SIFT-OUT project. They met again 12-18 months after the SIFT-OUT institute to formulate plans for institutionalizing SIFT-OUT efforts. (NOTE: North Carolina paid for the participation of a team in each SIFT-OUT institute but did not have stakeholder groups. Data are based on the five fully funded state teams.)

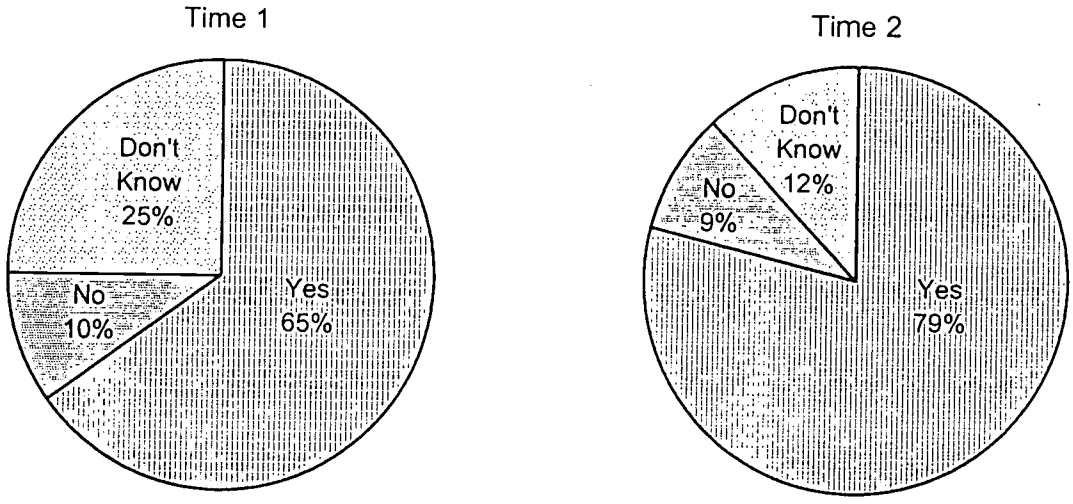

Figure 2. Does Your State Have a CSPD? Responses of SIFT-OUT Personnel Preparation Leaders

Data collected from SLTT members immediately prior to their involvement with the SIFT-OUT project indicated that many leaders were unaware of existing state personnel preparation efforts other than their own. They were not operating within an overall plan for early intervention personnel preparation. In fact, many (35%) were unaware that a Comprehensive System for Personnel Development (CSPD) existed in their state. This CSPD plan is necessary for states to receive Part C funds; therefore, all states had plans. As illustrated in Figure 2, comparisons of the pre-institute and six-month post-institute responses indicated that changes occurred in this respect. Leaders were more likely to know that a CSPD plan existed.

In addition, comparison of pre-institute and six-month post-institute data revealed other statistically significant differences in personnel preparation activities in the state, including:

- The CSPD plan was being used
- Training efforts were being coordinated across agencies
- Training efforts were being planned and implemented in a collaborative fashion
- Representatives of higher education were involved in planning and implementing inservice training
- Institutions of higher education (IHEs) were doing a more adequate job of providing preservice training
- Families had more opportunities to be involved in training
- Inservice and preservice training efforts were more linked
- Preservice and inservice training were tied to certification and credentialling
- Family-centered philosophy was infused into preservice training

These changes are significant. Specific examples of how the changes were manifested are presented in Table 2.

A question of interest is to what extent can these changes be attributed to the SIFT-OUT project. At the six month follow-up meetings held in each state, the key leaders rated the extent to which they felt the efforts started through SIFT-OUT would continue at a mean of 4.3 on a 1-5 scale (with 5 being "extremely likely" that efforts will continue). These quantitative findings are supported by qualitative evidence of lasting changes related to quality and collaboration in state personnel preparation efforts.

Anecdotally, we have evidence of other kinds of change that were facilitated by the very process of the SLTT meeting. In every state, new connections were made among stakeholders (as evidenced by exchanging of business cards, phone numbers, and e-mail addresses), new insights to the "big picture" were gained (as evidenced by multiple requests by SLTT members to receive information about projects and initiatives from each other), and new resources were discovered (as evidenced by the disappearance of descriptive materials that SLTT members brought with them to a display area at the meeting). Other comments by state liaisons throughout the project, reiterated that the meeting served as an effective statewide inservice on emerging early intervention personnel preparation issues. (See also Table 2).

Goal II: To increase higher education faculty members' knowledge and skills related to providing effective, innovative, family-centered, interdisciplinary early intervention training

Table 2. Progress Achieved by SIFT-OUT States

STATE	PRIORITIES	PROGRESS
ID	• Increase family involvement in preservice and inservice training across disciplines • Provide training to physicians (preservice, inservice) on Part C content areas, including family-centered practices • Increase coordination between preservice and inservice training	• Family-faculty teaching partnerships (parent panels, family presentations) were established at Boise State University and expanded at the University of Idaho. A mini-grant from SIFT-OUT was used to support the participation of family members in a statewide early intervention conference. • SIFT-OUT connected Idaho team members with a Virginia-based outreach project providing inservice education to medical personnel about early intervention. Funding was secured (ICC, Title V/Maternal and Child Health), a leadership planning group identified, and training provided. By coordinating efforts across preservice and inservice groups (i.e., medical students and practicing physicians), training was provided to approximately 10% of Idaho's pediatricians and family physicians. • Conversations among SIFT-OUT team members about improving preservice and inservice training relative to early intervention led to discussions of standards and qualifications. From these discussions came the formation of the Consortium for Preparation of Early Childhood Professionals. This group has proposed and is on the verge of achieving full approval for a non-categorical Blended Birth Through Grade Three Certificate that specifies standards for personnel who teach all children in this age range, including those who are at risk for, or who have, developmental delays.
IN	• Increase family involvement and family content in preservice training • Increase interdisciplinary focus in preservice training • Increase correlation between preservice learning experiences and credentialling	• Several new family-faculty partnerships were encouraged through SIFT-OUT and have continued, including co-teaching arrangements at St. Mary's and Ivy Tech. Funds from SIFT-OUT will be used to convene faculty from throughout Indiana in February 2000 to disseminate methods and materials for supporting increased family involvement in preservice preparation. • Several faculty members have increased collaboration with faculty and students from other disciplines (e.g., coursework and practica at the University of Indiana across the disciplines of physical therapy, occupational therapy, education, and psychology). • Part C materials were widely distributed to students and faculty (e.g., Part C self-study materials). A SIFT-OUT team member at Indiana University organized instructional resources to illustrate effective practices to preservice and inservice audiences.
NM	• Increase training that supports desired systems changes (e.g., increase family involvement in training, design training that offers credit for life experiences, increase emphasis on cultural diversity)	• SIFT-OUT team members have expanded family involvement in preservice education in a variety of ways (family practica, co-teaching, and parent panels) and in a variety of disciplines. Team members have also done joint (interdisciplinary) presentations at state conferences.

STATE	PRIORITIES	PROGRESS
NM	• continued	• SIFT-OUT team members played leadership roles in the development of New Mexico's Early Care, Education, and Family Support Professional Development initiative (career lattice opportunities for individuals serving children with disabilities and their families across the birth-3rd grade range). Progress to date includes identification of common core content with corresponding competencies, implementation of an inclusive BA-level teacher's credential, development of a 45-hour entry level course (which has been offered at no cost throughout the state), and identification of a process for providing college/university credit for life experiences. Foundation funds have been obtained for a higher education articulation task force representing all institutions of higher education in the state offering early childhood courses and a website<http://www.newmexicokids.org/> that provides a variety of resources (interagency training calendar, library of materials, networking and resources for families).
	• Increased emphasis on 0-3 issues in preservice training	• Team members report using methods and materials discovered at the SIFT-OUT institute to increase the early intervention emphasis in their teaching and training.
NC1	• Develop strategies for increasing early intervention coursework and clinical opportunities for allied health (occupational therapy/OT, physical therapy/PT, speech-language pathology/SLP) students	• Based on team input, Part C funds were designated for a Specialized Therapies Incentive Grant program. The purpose of the mini-grants to colleges and universities was increasing preservice emphasis on early intervention content and increasing the number of OT, PT, and SLP students specializing in work with infants, toddlers and families. Seven mini-grants were awarded to faculty to support changes in these areas. For example, interdisciplinary coursework was developed across OT, PT, and SLP at East Carolina University, leading to praise and recognition for those faculty members. Team members also report embedding new activities in their teaching and increasing family involvement.
	• Increase linkages between higher education programs and state Part C training and technical assistance consultants	• Collaboration between faculty members and Part C EITTAS consultants increased. Consultants have made presentations as part of college courses and faculty have participated in regional Part C inservice opportunities.
NC2	• Enhance the quality of preservice practica experiences for students preparing to work with children aged 0-5 and their families	• Based on team input, Part C funds were designated for grants to enhance the quality of birth through five practical experiences. Examples of new partnerships that emerged from those awards include family-faculty co-instruction, joint faculty-practitioner inservice experiences, community-based focus groups, and interdisciplinary faculty collaboration.

STATE	PRIORITIES	PROGRESS
OH	• Increase cross-disciplinary/interdisciplinary focus in preservice training	• New practicum experiences for students have resulted from interdisciplinary faculty collaboration at Kent State University. New partnerships between SIFT-OUT team members and SLTT members in the northeastern region have also resulted in a federally-funded interdisciplinary training project. In central Ohio, team members and SLTT members have collaborated to create an interdisciplinary infancy specialization.
	• Increase collaboration between universities and communities in training students	• Increased collaboration among faculty from 4-year institutions and faculty from community colleges has led to the organization of a 2-day summer symposium in 1998 and 1999. This provided a shared inservice opportunity, emphasizing methods and materials for supporting interdisciplinary practices and family involvement, for faculty, families and practitioners from throughout Ohio.
	• Increase family involvement in all aspects of preservice training (design, delivery, evaluation)	• With support from SIFT-OUT and the Ohio Higher Education Partnership Project, faculty from throughout Ohio have been trained and paired with family partners in co-teaching experiences.
TX	• Encourage family and provider involvement in training	• An interdisciplinary practicum was initiated and evaluated at the University of Texas at Dallas. A system for documenting early intervention competencies in course work was developed at Stephen F. Austin University. An interdisciplinary minor in early intervention was developed and approved at Southwest Texas State University. An interdisciplinary, team-taught early intervention course has been implemented at Baylor University. Groundwork has been completed (advisory committee, course plans, department commitments) for a 3-year test of interdisciplinary coursework and practica at the University of Texas at Austin. An introductory course, co-taught by a family-faculty team, has already been implemented.
	• Expand the knowledge of higher education faculty with regard to family-centered early intervention	• Teaching modules for increasing early intervention content were developed and disseminated to faculty throughout the state. Training on their use and follow-up evaluation were completed.

In each state, SLTT members were asked to identify a travel team to participate in a four day SIFT-OUT institute. SIFT-OUT required that states select a group that represented multiple disciplines, cultural diversity, family members, faculty members, and Part C. SIFT-OUT defined "faculty" in an inclusive fashion so that practica supervisors and adjunct instructors were included to ensure the presence of direct service providers on the state faculty teams. The 92 team members who participated from the six states (7 teams) represented fifteen different disciplines with a mean of 11.8 years of service delivery experience and 10 years of personnel preparation experience. Just over 33% were parents of children with disabilities, and there was 8.8% minority representation (see Table 3).

Table 3. Number and Characteristics of the Individuals Who Received Direct Training from the SIFT-OUT Project

Characteristic	Percent
Ethnicity	
European American	91.l
African-American	4.4
Latino/Hispanic	4.4
Parent of a Child with a Disability	33.3
Primary Work Setting	
University	40.4
State Agency	18.0
University Affiliated Program (UAP)	3.4
Community Agency	21.3
Community College	2.2
Other	14.6
Discipline	
Early Childhood Special Education	11.1
Special Education	7.8
Psychology	2.2
Speech-Language Pathology	12.2
Child Development	6.7
Education	4.4
Nursing	3.3
Medicine	5.6
Social Work	4.4
Physical Therapy	4.4
Early Education	7.8
Nutrition	1.1
Occupational Therapy	4.4
Business	1.1
Other	13.3

As soon as travel team members were selected they were asked to respond to a needs assessment measure related to content areas, instructional strategies, and re-

sources to which they would like exposure in order to enhance their ability to provide early intervention training to others. Their priorities for content were (top five in decreasing order of priority): interdisciplinary teaming, family-centered practices, inclusion, assessment/evaluation, and cultural diversity. Training strategies that they prioritized were: families as co-instructors, cross-disciplinary co-teaching, team-based approaches, distance learning, and consultative approaches. Resources that they said would best help them were: access to training resources (packaged curricula, videotapes, activities), further training in how to use a variety of instructional strategies, and further training in relevant content. The results of the needs assessment data, as well as the state priorities identified by SLTT members in each cohort of states, were used to design the four day training institutes held each year. The training institutes are described in detail in Winton (1996) and Winton, Catlett, and Houck (1996).

Data suggest that the SIFT-OUT institutes were successful in terms of short-term and long-term outcomes (6 month-follow-up). These data showed increases in faculty knowledge and skill in all 17 early intervention content areas and training strategies measured (significant differences between pre and six-month post). Participants also showed a statistically significant increase in their commitment and willingness to participate in community-based, early intervention inservice training and technical assistance and, in fact, did increase at a statistically significant level the amount of inservice training they provided after participation in the SIFT-OUT project. This commitment was made despite the fact that inservice training is not a primary part of a university faculty member's position.

Goal III: To assist faculty in embedding state-of-the-art information related to early intervention content and instructional strategies into the training they provide to others

The true test of effectiveness of a project like SIFT-OUT is the extent to which new knowledge and skills are applied to real life settings. Pre- and six-month post- comparisons of reports of the preservice and inservice training practices utilized by faculty indicate that this did indeed occur. Training provided by SIFT-OUT faculty participants improved from pre to six-month post in terms of quality indicators identified in advance by the SIFT-OUT project. Specifically, family members were more likely to be included as co-instructors and as audience members in inservice training conducted by SIFT-OUT participants. In addition, preservice training conducted by participants was more likely to include interdisciplinary audiences and be characterized by training strategies that were varied to meet different learning styles.

One of the critical components to the SIFT-OUT model was to request that participants develop a specific plan for how they would use what they learned through the SIFT-OUT project in their states and universities. This planning process took place at a state level, with the generation of a specific state action plan, and at the individual level, with the generation of individual action plans. Participants were interviewed by telephone at a six-month follow-up point about the barriers and facilitators that helped or hindered them in accomplishing individual goals that they identified as part of their SIFT-OUT participation. The results of a content analysis of these interviews are indicated in Table 4. In addition, participants were asked to describe what they felt to be the major impact of the SIFT-OUT Project. A content analysis of these statements indicated that networking was the major impact identified by the most participants.

Table 4. **Variables that Impacted Implementation of Individual Action Plans (6 states; 7 teams)**

- **Facilitators**
  - Time, interest and support of colleagues
  - Follow-up support and materials from SIFT-OUT
- **Barriers**
  - Not enough time/Competing priorities and responsibilities
  - Organizational challenges related to scheduling and planning

Six-month follow-up meetings were held in all six states with SLTT members and travel team members who participated in the project. The barriers and facilitators identified in these meetings affecting the accomplishment of state goals were similar to those affecting individual goals. In most states the personal relationships and mutual support that had been forged through the SIFT-OUT experience were cited as major facilitators to accomplishing goals. Comments like, "We are now mentors to one another" characterized the nature of the partnerships that had been formed. During the individual telephone interviews, participants identified many positive outcomes that resulted from their involvement with the SIFT-OUT project. At the end of the interview they were asked to identify the major impact. A content analysis of responses indicated that the relationships formed through SIFT-OUT was the most frequent response to this question. These relationships were with other faculty, family members, state agency representatives, SIFT-OUT staff and faculty, and SIFT-OUT participants from other states. The two other most frequently mentioned responses to the major impact question were related to their knowledge and use of innovative training strategies and their knowledge and incorporation of new early intervention training content.

In terms of barriers, the lack of time/competing individual responsibilities and priorities was identified as a major barrier in all follow-up meetings. In addition, the geographic distance between team members, bureaucratic red tape, lack of administrative support, and lack of communication between key leaders were also mentioned as barriers in 50% of the states. It should also be noted that SIFT-OUT was most successful in states in which there was clear, unequivocal, and consistent support for inservice and/or preservice change and improvement from the Part C leadership.

It should also be noted that all planned project activities and procedures were accomplished in a timely manner. Measures to evaluate the perceived effectiveness of and documented changes from the SIFT-OUT meetings and institutes were developed and data analyzed, as discussed above under Goals 2 and 3. The SIFT-OUT project was also very successful in sharing information and materials with diverse audiences committed to early intervention personnel development.

PROJECT IMPACT

Project impact is described in this section in terms of changes that have been facilitated in participating states, products developed and available, presentations, publications, and other indicators of the project's effect on the field, on families, and ultimately on young children with disabilities. A final section summarizes the implications of findings by de-

scribing lessons learned through the SIFT-OUT project and promising strategies for future efforts.

Products

- **Electronic**

In June, 1998, two listservs were implemented to facilitate networking with SIFT-OUT participants. SIFTON is a generic listserv through which methods, materials, and opportunities are shared with all project participants. SIFTFAM is targeted specifically to communication with family members.

March, 1999 saw the launch of a website for SIFT-OUT and related systems change projects. Housed at the Frank Porter Graham Child Development Center, the website <www.fpg.unc.edu/~scpp> provides information about SIFT-OUT methods and findings, down-loadable samples of all SIFT-OUT measures, and free copies of all SIFT-OUT products, including the *Resource Guide*. Based on current statistics, the Systems Change in Personnel Preparation website is receiving over 1,000 visits each month.

- **Print**

Winton, P. (1996). *Inservice personnel preparation quality indicators; Preservice personnel preparation quality indicators*. Unpublished checklists. Chapel Hill, NC: University of North Carolina, Frank Porter Graham Child Development Center

Catlett, C., & Winton, P.J. (Eds.) (1999). (8th ed.). *Resource guide: Selected early childhood/early intervention training materials*. Chapel Hill, NC: Frank Porter Graham Child Development Center, University of North Carolina. Available for searching, printing, or copying at < www.fpg.unc.edu/Publications/Rguide/rguide.pdf >.

Winton, P., & Catlett, C. (1999). *What we have learned about preparing personnel to serve children and families in early childhood intervention*. Unpublished briefing paper. Chapel Hill, NC: Frank Porter Graham Child Development Center, University of North Carolina. Available at http://www.fpg.unc.edu/~scpp/pages/products.htm

Winton, P., & Catlett. C. (1999). *Diversity in early childhood intervention leadership: Current facts and challenges*. Unpublished fact sheet. Chapel Hill: Frank Porter Graham Child Development Center, University of North Carolina. Available at http://www.fpg.unc.edu/~scpp/pages/products.htm

Catlett, C., & Winton, P. (1999). *Community colleges and early childhood intervention: Current facts and challenges*. Unpublished fact sheet. Chapel Hill: Frank Porter Graham Child Development Center, University of North Carolina. Available at http://www.fpg.unc.edu/~scpp/pages/products.htm

Dissemination Activities

- **Presentations**

Catlett, C., & Crais, E.R. (1995, November). You want me to teach what? Or, adding new course content. International Division for Early Childhood Conference, Orlando, FL.

Catlett, C., Winton, P.J., McEvoy, M., Flynn, L., Bruder, M.B., Campbell, P., Bryant, L., Weinberg, B., & Capone, A. (1995, November). Systems change in early intervention personnel preparation: Findings of the four faculty training institutes. International Division for Early Childhood Conference, Orlando, FL.

Winton, P.J., Catlett, C., Solomon, J.W., Michael, D., Sanders, P., & Irick, K. (1995, November). Embedding quality and collaboration into personnel preparation: Lessons

learned that you can use. International Division for Early Childhood Conference, Orlando, FL.

Winton, P., McWilliam, P., Darkes, L., & Vance, S. (1996, February). Techniques to assess program practices. Program Essentials in Early Intervention: Effective Evaluation for Quality Family-Centered Services. NC Division of Human Resources and the Division of Maternal and Child Health, Morganton, Asheboro, and Greenville, NC.

Catlett, C. (1996, March). Promoting collaboration in early intervention: Resources and strategies to try together. Michigan Interdisciplinary Faculty Institute for Early Intervention, Lansing, MI.

Catlett, C., Hoge, D.R., Berry, V., Cirlot-New, J., & Moore, S.M. (1996, March). Look! Listen! Learn! Making it happen for infants, toddlers, and preschoolers. Short course for the Mississippi Speech-Language-Hearing Association, Jackson, MS.

Catlett, C., Hoge, D.R., & Walter, S. (1996, April). Evaluation and assessment in early intervention. Southern Illinois Universtiy, Edwardsville, IL.

Catlett, C. (1996, April). Embedding early intervention content in existing coursework. University of the Virgin Islands, St. Thomas/St. Croix.

Catlett, C. (1996, May). Team building. Nutrition Makes a Difference, Chapel Hill, NC.

Callarman, S., & Catlett, C. (1996, May). Family-professional partnerships: Methods and materials that support success. Early Childhood Intervention Statewide Conference, Austin, TX.

Sloop, S., & Winton, P.J. (1996, May). Making it happen: Practical strategies for building family-professional partnerships in early intervention. 1/2 day workshop at the Early Childhood Intervention Statewide Conference, Austin, TX.

Coleman, T.J., & Catlett, C. (1996, May). Increasing sensitivity to cultural differences. Nutrition Makes a Difference, Chapel Hill, NC.

Sloop, S.C., & Catlett, C. (1996, May). Better behaved trainers: Ideas you can use. Planning for Better Behavior Workshop, Burlington, NC.

Catlett, C., Hoge, D.R., & Walter, S. (1996, June). Strategies for preparing personnel to include family members as team participants in assessment. Sixth Annual Illinois Faculty Development Institute, Oak Brook, IL.

Catlett, C. (1996, June). Family and faculty tell all: Ideas and opportunities for collaboration in training. Sixth Annual Illinois Faculty Development Institute, Oak Brook, IL.

Catlett, C., Gallagher, P.A., & Michael, D. (1996, June). Promoting quality and collaboration in personnel development: Strategies for linking materials, money, and manpower. Fourth Annual CSPD Conference, Arlington, VA.

Winton, P.J., & Snyder, P. (1996, June). New ideas for teaching about early intervention laws and policies. Presentation at SIFT-OUT Institute, Flat Rock, NC.

Sloop, S., & Catlett, C. (1996, June). Family-centered practices: New approaches to old topics. Presentation at SIFT-OUT Institute, Flat Rock, NC.

Coleman, T., & Catlett, C. (1996, June). More methods and materials for training about culture and diversity. Presentation at SIFT-OUT Institute, Flat Rock, NC.

Coleman, T., Crais, B., McWilliam, P.J., Sloop, S., Snyder, P., Winton, P., & Wolfe, B. (1996, June). Systems change in higher education. Presentation at SIFT-OUT Institute, Flat Rock, NC.

Winton, P., & Wolfe, B., (1996, June). Interdisciplinary teaming: Strategies for getting teams unstuck. Presentation at SIFT-OUT Institute, Flat Rock, NC.

Winton, P., & Wolfe, B., (1996, June). Interdisciplinary and interagency collaboration: Strategies for building skills and knowledge. Presentation at SIFT-OUT Institute, Flat Rock, NC.

Winton, P., Sloop, S., & Coleman, T. (1996, June). Communication skills: The heart of family-professional and interprofessional collaboration. Presentation at SIFT-OUT Institute, Flat Rock, NC.

Winton, P., Pierce, P., Jones, M., Cripe, J.W., Snyder, P., Askew, L, & Sloop, S. (1996, June). Statewide systems issues. Presentation at SIFT-OUT Institute, Flat Rock, NC.

Catlett, C., Summers, J.A., & Lane, V. (1996, August). New approaches to early intervention personnel training. Partnerships for Progress VIII, Osage Beach, MO.

Catlett, C., & Hoge, D.R. (1996, September). New ideas for teaching in key early intervention content areas: Legislation, family-centered practices, and cultural diversity. Invited presentation, Missouri Interdisciplinary Faculty Institute for Early Intervention, Osage Beach, MO.

Catlett, C., Walter, S., & Hoge, D.R. (1996, September). Strategies for preparing personnel to include family members as team participants in assessment. Invited presentation, Missouri Interdisciplinary Faculty Institute for Early Intervention, Osage Beach, MO.

Catlett, C., & Parette, P. (1996, September). Have you tried this yet? Instructional strategies that promote active learning. Invited presentation, Missouri Interdisciplinary Faculty Institute for Early Intervention, Osage Beach, MO.

Catlett, C. (1996, September). Methods and materials for teaching and learning about teams and teamwork. Invited presentation, Georgia Higher Education Consortium for Early Intervention Institute, Helen, GA.

Catlett, C. (1996, September). Methods and materials for teaching and learning about family-professional collaboration. Invited presentation, Georgia Higher Education Consortium for Early Intervention Institute, Helen, GA.

Catlett, C. (1996, September). Methods and materials for teaching and learning about culture and diversity. Invited presentation, Georgia Higher Education Consortium for Early Intervention Institute, Helen, GA.

Winton, P. (1996, September). Being a change agent in a changing early childhood environment. Keynote address at the Leadership Conference for Early Childhood Planning and Coordinating Councils sponsored by Indiana's Unified Training System, Bloomington, IN.

Winton, P., Valiquette, S. Reeves, A., & Romich, B. (1996, September). Being a successful early childhood advocate in a changing environment. Presentation at the NC-AEYC Statewide Conference, Greensboro, NC.

Winton, P., Scher, P., & Thegen, K. (1996, September). Creating family-centered, quality child care: Community-based strategies and tools. Presentation at the NC-AEYC and DEC Statewide Conference, Greensboro, NC.

Winton, P. (1996, September). Think globally: Act locally. Keynote address at the Indiana Early Childhood Leadership Conference, Bloomington, IN.

Catlett, C., Hoge, D.R., & Walter, S. (1996, October). Have you tried this yet? Methods and materials to support teaching and learning in early intervention. Invited 1-day faculty training workshop, PARTNERSHIPS: Training for Early Intervention Services, Champaign, IL.

Winton, P. (1996, October). Early childhood research utilization. Session for CDFS 121, an undergraduate seminar on early childhood leadership and administration, Chapel Hill, NC.

Catlett, C. (1996, November). Have you tried this yet? Personnel development strategies that promote active learning. Invited workshop, Innovations in Early Intervention Conference, Cromwell, CT.

Winton, P. (with PJ McWilliam). (1996, December). From the beginning: Practical strategies for applying family-centered principles during first contacts with families. Presentation at the DEC Conference, Phoenix, AZ.

Winton, P. (with Pat Snyder and PJ McWilliam). (1996, December). Practical strategies for assisting programs in making changes. Presentation at the DEC Conference, Phoenix, AZ.

Catlett, C., Irick, K., & Winton, P.J. (1996, December). It's NOT in there yet: Strategies for addressing diversity in personnel preparation. Conference session, International Division for Early Childhood Conference, Phoenix, AZ.

Catlett, C., & Hoge, D.R. (1996, December). Parent-professional partnerships in training. Poster presentation, International Division for Early Childhood Conference, Phoenix, AZ.

McWilliam, P., Winton, P., & Crais, B. (1996, December). From the beginning: Practical strategies for applying family-centered principles during first contacts with families. Presentation at the International Division of Early Childhood (DEC) Conference, Phoenix, AZ.

Pierce, P.L., & Catlett, C. (1996, December). Allied health alliances: Creative approaches for addressing personnel shortages. Poster presentation, International Division for Early Childhood Conference, Phoenix, AZ.

Winton, P., Catlett, C., Irick, K., & Solomon, J.W. (1996, December). Findings and products of the Southeastern Institute for Faculty Training (SIFT). Poster presentation, International Division for Early Childhood Conference, Phoenix, AZ.

Winton, P., McWilliam, P., & Snyder, P. (1996, December). Getting from here to there: Practical strategies for making changes in early childhood programs and policies. Presentation at the International Division of Early Childhood (DEC) Conference, Phoenix, AZ.

Winton, P. (1997, January). Getting from here to there: You can make a difference. Keynote address at the 8th Annual Infant Development Association Conference, Irvine, CA.

Winton, P, & Hausslein, E. (1997, January). Practical strategies for building family-professional partnerships. Three hour intensive session at the 8th Annual Infant Development Association Conference, Irvine, CA.

Winton, P., McWilliam, P.J., Vance, S., & Darkes, L. (1997, February). Techniques to assess program practices. Workshop sponsored by NC Dept. of Human Resources for early intervention administrators and providers, Morganton, NC.

Winton, P. J., Geissinger, S., & Romich, B. (1997, April). Being a successful advocate in a changing environment. Presentation at the 1997 Collaborative Early Intervention Conference, Winston-Salem, NC.

Catlett, C. (1997, April). Resources for addressing culture & diversity. ECI Statewide Conference, Austin, TX.

Catlett, C. (1997, April). Resources for addressing teamwork. ECI Statewide Conference, Austin, TX.

Catlett, C. (1997, April). Resources for addressing family-professional collaboration. ECI Statewide Conference, Austin, TX.

Catlett, C. (1997, June). Including family members in assessment. Iowa Early Childhood Special Education Summer Institute, Ames, IA.

Catlett, C. (1997, June). Strategies for family-centered services. Iowa Early Childhood Special Education Summer Institute, Ames, IA.

Winton, P., Ortiz, A., Hains, A., Stayton, V. Whitehead, A., & Crais, B. (1997, June). Keeping the ball rolling: Strategies for institutionalizing change. Presentation at the SIFT-OUT Institute, Flat Rock, NC.

Winton, P., Jesien, G., & Snyder, P. (1997, June). New ideas for teaching about early intervention laws and policies. Presentation at the SIFT-OUT Institute, Flat Rock, NC.

Winton, P. & Ferguson, A. (1997, June). Interdisciplinary collaboration: Strategies for building individual and team skills. Presentation at the SIFT- OUT Institute, Flat Rock, NC.

Winton, P., Hughes, M., Rush, D., Snyder, P., Strecker, M., & Webb, C. (1997, June). Comprehensive System for Personnel Development (CSPD): Big phrase, big job, big potential. Presentation at the SIFT- OUT Institute, Flat Rock, NC.

Catlett, C., & Ortiz, A. (1997, June). Methods and materials for teaching about culture and diversity. Presentation at the SIFT- OUT Institute, Flat Rock, NC.

Winton, P., Crais, B., Catlett, C., Wolfe, B., Webb, C.A., Stayton, V., & Moore, S. (1997, June). Interdisciplinary collaboration in higher education: What, why, how? Presentation at the SIFT- OUT Institute, Flat Rock, NC.

Catlett, C., & Hoge, D.R. (1997, June). Methods and materials for teaching about evaluation and assessment. Presentation at the SIFT- OUT Institute, Flat Rock, NC.

Catlett, C. (1997, June). Methods and materials for teaching about inclusion. Presentation at the SIFT- OUT Institute, Flat Rock, NC.

Catlett, C. (1997, June). Methods and materials for teaching about family-centered practices. Presentation at the SIFT- OUT Institute, Flat Rock, NC.

Catlett, C. (1997, June). Methods and materials for teaching about teaming. Presentation at the SIFT- OUT Institute, Flat Rock, NC.

Winton, P., Pierce, P., Dinnebeil, L., &Catlett, C. (1997, June). Models for supporting faculty. Presentation at the SIFT- OUT Institute, Flat Rock, NC.

Winton, P. (1997, June). Navigating whitewater: Keeping good ideas afloat in times of change. Keynote address at the 7th Annual Illinois Faculty Early Childhood Institute, Oakbrook, IL.

Winton, P. (1997, September). Taking the helm: National trends in early intervention and their implications for practice. Keynote address at the Area Program Conference for Early Intervention Staff, New Bern, NC.

Winton, P. (1997, September). Engaging in self-reflection toward a professional development plan. Presentation at Area Program Conference, New Bern, NC.

Winton, P., Scher, P., & Thegen, K. (1997, November). Participatory action research: Strategies for involving multiple stakeholders in creating quality child care programs. Annual NAEYC Conference, Anaheim, CA.

Winton, P. & Mellin, A. (1997, November). The ammunition (data & strategies) you need to promote interdisciplinary preservice training. Presentation at Annual DEC Conference, New Orleans, LA.

Winton, P. Scher, P. & Thegen, K. (1997, November). Panelists - Research to Practice Special Interest Group. Annual NAEYC Conference, Anaheim, CA.

Catlett, C., Winton, P. & Ferguson, A. (1997, November). Rethinking early intervention personnel development: Methods and materials for addressing key concepts. Preconference session, International Early Childhood Conference on Children with Special Needs, New Orleans, LA.

Catlett, C. (1998, February). Infusing diversity in teaching, training and practice. Early Years: Children, Families, and Communities, Grand Island, NE.

Catlett, C., & Edwards, C. (1998, February). Increasing family-practitioner collaboration in teaching, training, and practice. Early Years: Children, Families, and Communities, Grand Island, NE.

Catlett, C. (1998, February). New resources for early intervention personnel development. Virginia Institutions for Higher Education for the Early Education of Children with Disabilities, Richmond, VA.

Winton, P., Garland, C., Tuchman, L. & Hecht, L. (1998, February). Sustaining change: Strategies for making the most of a short term project. Annual EEPCD Meeting, Washington, DC.
Catlett, C., McNally, A., & Moon, R. (1998, April). New ideas for addressing cultural diversity. 1998 Collaborative Conference, Winston-Salem, NC.
Catlett, C., McNally, A., & Moone, R. (1998, April). New ideas for addressing inclusion. 1998 Collaborative Conference, Winston-Salem, NC.
Catlett, C. (1998, April). Planning retreat for Impact 2000: Preparing Personnel for Leadership in Disability Services, Flatwoods, WV.
Winton, P., Hains, A., Santos, A., & Thegen, K. (1998, April). Linking research to practice: Constituent involvement in early intervention research. Presentation at the Conference on Research Innovations in Early Intervention, Charleston, SC.
Winton, P. (1998, April). What is the national center for early development and learning and how might it help the community college system? Presentation at the Annual Meeting of the Community College Early Educators, Asheville, NC.
Winton, P. & Ferguson, A. (1998, June). Making sure two heads are better than one: Maximizing team time. Presentation at the SCRIPT faculty training institute, Flat Rock, NC.
Winton, P., & Snyder, P. (1998, June). New ideas for teaching legislation and policies. Presentation at the SCRIPT faculty training institute, Flat Rock, NC.
Catlett, C., & Edwards, C. (1998, June). Methods and materials for teaching about family-professional collaboration. Presentation at the SCRIPT faculty training institute, Flat Rock, NC.
Rush, D., Askvig, B., Thelen, J., Henson, J., Wolfe, B., Winton, P., & Catlett, C. (1998, June). Comprehensive System for Personnel Development (CSPD): Lots of roles for lots of players. Presentation at the SCRIPT faculty training institute, Flat Rock, NC.
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Other Indicators of Project's Effect on the Field of Early Intervention and/or Children with Disabilities and their Families

- Documented changes in the seven participating states are listed in Table 2.

- The SIFT-OUT newsletter, renamed *Systems Change in Personnel Preparation*, has been published twice each year and is currently received by over 1,500 subscribers. Circulation has reliably expanded with each issue.

- Over 500 copies of the *Resource Guide* have been disseminated directly by SIFT-OUT. Camera-ready, single-sided originals have been shared with ten states (OH, IN, ND, NE, IA, NC, MO, IL, VA, WV) for further dissemination.

- The interactive format for connecting individuals involved in early intervention personnel preparation with high-quality, low-cost training materials, developed for the SIFT-OUT institutes, was replicated by four SIFT-OUT states (IN, NM, NC, OH).

- West Virginia has replicated the entire SIFT-OUT process (stakeholder group, state priorities, regional teams, institute, follow-up) with a slightly different emphasis. With free consultation from SIFT-OUT staff, the IMPACT 2000 initiative has prioritized increasing the emphasis on disability issues in all preservice education. Additional information is available at the IMPACT 2000 website (http://www.uacdd.wvu.edu/impact/).

- Based on our wish to share information about SIFT-OUT as widely as possible, Part C coordinators, 619 coordinators, and ICC chairs from all states and jurisdictions have routinely been targeted for dissemination of project materials.

With technical assistance funds provided by National Early Childhood Technical Assistance System (NECTAS), SIFT-OUT personnel organized a one-day focus group of culturally and linguistically diverse faculty, students, practitioners, and state leaders in November, 1998. Leadership was provided by Evelyn Moore and Melinda Green of the National Black Child Development Institute (NBCDI). The exchange of ideas about efforts that facilitate and inhibit the recruitment, preparation, and support of diverse leadership in the early childhood field was productive and informative. Positive outcomes from the meeting have included linking students with mentors through NBCDI's national mentoring project and sharing of materials. Encouragement from participants to continue efforts to increase the diversity of leadership personnel in North Carolina's early childhood community has led to the submission of two funding proposals.

Implications of Findings: Lessons Learned and Promising Strategies

What follows is summary of some of the valuable lessons learned about early intervention personnel preparation, including information on useful and effective training strategies introduced through the SIFT-OUT model that now have been adopted and used by SIFT-OUT participants.

Faculty Are Willing and Interested in Participating in Efforts that Improve their Effectiveness

At the beginning of this project, there was some anxiety about the level of interest that faculty might have for the activities of this project. Tenure and promotion are usually tied to preservice teaching, research, and publication. The extent to which faculty would be supported by deans and administrators was another uncertainty with research suggesting that support might be lacking (Gallagher & Staples, 1990). The question of where and how to secure travel money to support faculty participation in the SIFT-OUT project was also a concern. The rate of participation in this project makes it clear now that faculty are willing to commit time and energy to efforts that improve the quality of their own teaching/training. Furthermore, they are willing to work with colleagues on a statewide basis to improve the quality of preparation of the future workforce. It is significant that deans and university administrators were supportive of faculty involvement. They might not be willing to sponsor or plan staff development activities for faculty; but if someone else does the planning, they are willing to play a supporting role.

One of the barriers identified by faculty to accomplishing the goals that they identified related to early intervention training were competing priorities for their time. Collaboration across disciplines, with families, and with state agencies takes time and energy; bureaucratic red tape at the state agency and university levels created frustration. Strategies identified by faculty for rewarding and reinforcing their participation included reimbursement so that their time could be "bought out" from existing university responsibilities, and bureaucratic support at the university and state levels for some of the collaborative and innovative approaches to training they wanted to implement.

Collegial Support is Important

Needs assessment data indicated that access to faculty with whom to co-teach was highly rated as a resource that would help faculty. In addition, when asked during the follow-up interviews what contributed to their success in achieving their individual goals, a consistent response was the support of colleagues. This suggests that providing network-

ing opportunities in conjunction with structured instructional sessions is an effective strategy for supporting faculty. Faculty also said that having some kind of means for continuing to sustain these relationships, which sometimes entailed distances across states, were helpful. Higher education consortia or personnel preparation sub-committees of the state interagency coordinating council (ICC) were strategies that were potentially helpful, although faculty indicated that these structures can be unrewarding if they lack clearly stated, meaningful, and obtainable goals. A mechanism that has worked well in some states is organizing the SIFT-OUT team in clusters (i.e., small groups of participants, including families, service providers, state agency representatives, and faculty, whose geographic proximity facilitates collaborative work). Texas and Ohio are examples of states in which "clustering" has provided participants with a concrete opportunity to implement training ideas and relationships developed through SIFT-OUT.

Faculty Want Access to Instructional Resources

Access to training resources was also identified by participants through the needs assessment process as a critical resource that would assist them. After participating in the four day faculty training institute, several states pursued strategies for developing or updating training resource libraries in their states. Some states used Part C money or blended money from several state agencies to purchase materials discovered through SIFT-OUT and to set up or update state-wide or regionally-based lending libraries. Other states discovered that some of the materials were available in their states; access had been limited because of lack of information about the materials. States realized that resource guides describing existing materials were important in promoting access.

Emphasis and Appreciation for the Importance of Innovative Training Strategies Increased

Another finding from the faculty needs assessment was that faculty were more confident in their knowledge and skills related to early intervention content than they were of their knowledge and skills related to training strategies. Most participants left the SIFT-OUT faculty training institute with an increased appreciation for the important role that adult learning principles and interactive training strategies have in successfully conveying and teaching early intervention content and skills to practitioners and students. Comparison of pre-institute/6 month post-institute data indicated that participants increased their use of interactive, innovative instructional stategies. A related outcome is that some states are beginning to share information about training strategies and build skills with a broader audience in their own states. Several states have planned and implemented workshops or institutes, modeled after the SIFT-OUT faculty training institute, independently, or as part of larger conferences for faculty and state agency personnel across disciplines and agencies. Training strategies that they have been used in these events have included the following:

- "boss/dean" letters to effectively engage university support for faculty participation
- "back home plans" to encourage immediate application of ideas to practice
- resource libraries to provide faculty with immediate access to exemplary training materials
- instructional sessions that demonstrate innovative training strategies.

Outcomes Evolved

There were many unique outcomes and activities that developed as a result of this project and the relationships that were made among team members. Some of these outcomes were not part of the planning process done at the four day institute, but evolved

over time. For example, conversations about the possibility of a Blended Birth Through Grade Three Certificate in Idaho began at the institute as a conversation among SIFT-OUT team members, grew when a SIFT-OUT staff member facilitated sessions at a statewide special education conference, and continued for three years before coming to fruition. This is but one example of some of the unexpected outcomes that were the result of the SIFT-OUT project.

Systems Change Requires Time

The emphasis on linking higher education and state agency efforts clearly had benefits. Faculty came to the training with some specific ideas about ways they might apply what they learned within a broader state plan. They also came knowing that their involvement was supported by university and state administrators, and that there was some expectation that they would serve as a training resource for the state agencies within their state. Carolina Policy Studies Project research has indicated that states that have made the most progress in implementing the personnel preparation components of Part C are those with strong linkages between state agencies and institutions of higher education. The priority for creating this sense of a "shared commitment" between university faculty and state agencies was an important component of the SIFT model from the model's inception. Pre-institute/6 month post-institute differences indicated that preservice-inservice linkages have occurred as a result of SIFT-OUT. At the same time, we continue to document that longer follow-up is necessary in order to support and monitor attempts to redesign personnel preparation systems to meet quality standards. For example, the Idaho example mentioned above would have gone unreported without a significant period of follow-up (18+ months). Another related finding is the importance of the follow-up provided by the SIFT-OUT project; this was cited by a large percentage of faculty as being a facilitator to their being able to accomplish their goals.

Evaluation is Critical

For a long time personnel preparation has been a "backburner" Part C issue in states. States have had to struggle with more pressing components of the legislation such as determining eligibility, developing child find strategies, and dealing with service coordination, delivery and funding issues. Now that all states have reached the implementation phase of Part C, attention is being turned to personnel issues. Policymakers at state and federal levels are asking questions about the efficacy of current personnel efforts. They are wondering why universities have not successfully solved the shortage problems and why turnover rates remain high. They want data supporting the effectiveness of plans developed in support of the Comprehensive System of Personnel Development (CSPD). Too often the "train and hope" mentality has prevailed; evaluation efforts have focused on superficial outcomes, such as number of participants, number of events held, and general satisfaction levels of participants. Questions such as, "Did the training result in documented and positive changes in skill and knowledge levels of participants", "Did the participants apply what they learned in their practice settings?", or "Did positive changes in program policies and practices result from the training efforts" are rarely asked. A related issue is that the form of training most often used, the one-shot workshop, is likely to be ineffective as a means for accomplishing these outcomes.

Faculty who participated in the SIFT-OUT model learned about innovative approaches and models to personnel preparation that involve partnerships across disciplines and with service providers and families. They have been exposed to evaluation strategies that address the outcomes described above. Faculty also have incentives and pressures to con-

duct research and disseminate findings; this is a primary means for obtaining promotions and respect from academic colleagues. These are strengths that university faculty bring to personnel preparation evaluation efforts. State agencies have training monies and responsibilities; they also have interest and expertise in evaluation research but often lack the manpower resources to implement effective evaluations. Working together can serve both groups. The ultimate beneficiaries of the quality personnel preparation efforts that will result from this partnership are the practitioners and the young children and families they serve.

FUTURE ACTIVITIES

Several future activities that build on SIFT-OUT are planned or underway. First, the principal investigators have secured two additional Department of Education awards to pursue research that builds directly on SIFT and SIFT-OUT. The first is a Special Project entitled Supporting Change and Reform in Interprofessional Preservice Training (*SCRIPT*), which is using the systems change model to plan for and support preservice changes in eight states (IA, KY, MO, NE, NC, ND, OK, WI). The second is a Project of National Significance entitled New Scripts for 21st Century Services: An Innovative Model for Supporting Change and Reform in Interprofessional Preservice Training, which is extending the systems change model to emphasize community college participation and cultural/ linguistic diversity.

In addition, the Frank Porter Graham Child Development Center was awarded 5-year funding in 1996 to establish and operate a National Research Center for Early Childhood Development and Learning (NCEDL). It is anticipated that several activities of the Center related to materials development and dissemination will expand on work begun through SIFT-OUT.

ASSURANCE STATEMENT

A copy of this full final report has been sent to:

Rose Sayer, Office of Special Education Programs, U.S. Department of Education
ERIC Clearinghouse on Handicapped and Gifted Children
National Early Childhood Technical Assistance System (NECTAS)
National Clearinghouse for Professions in Special Education (CEC)
National Information Center for Children and Youth with Disabilities (NICHCY)
Parent Training and Information Center Alliance Coordinating Office
Child and Adolescent Service System Program (CASSP)
Northeast Regional Resource Center
Mid-South Regional Resource Center
Southeast Regional Resource Center
Great Lakes Area Regional Resource Center
Mountain Plains Regional Resource Center
Western Regional Resource Center
Federal Regional Resource Center

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Preservice Personnel Preparation Quality Indicators

- To what extent was the instruction you provided coordinated with your state's CSPD plan?
- To what extent were certification or licensure credits available to students who participated in the instruction provided?
- In providing this instruction, to what extent did you work as part of an interdisciplinary instructor team?
- To what extent did family members of children with disabilities (consumers of services) participate as part of the instructor team?
- To what extent was the audience interdisciplinary (at least three or more disciplines were well represented)?
- To what extent were experiential activities and modeling/demonstration opportunities provided as part of the instruction?
- To what extent were instructional strategies used for embedding/applying the training ideas to the workplace?
- To what extent were training strategies varied and sequenced in ways support students with different learning needs and styles?
- To what extent did students identify specific ideas/practices that they desired to try in their clinical experiences (an action plan)?
- To what extent was ongoing support, monitoring, or technical assistance provided to students after the course or program ended?
- To what extent was actual impact of instruction on practices measured or evaluated?
- To what extent was instruction individualized according to the needs of students?

From: Catlett, C., & Winton, P.J. (1997). Putting it all together: The nuts and bolts of personnel preparation. In P.J. Winton, J.A. McCollum, & C. Catlett (Eds.), *Reforming personnel preparation in early intervention: Issues, models, and practical strategies*. Baltimore: Paul Brookes.

Inservice Personnel Preparation Quality Indicators

- To what extent was the instruction you provided coordinated with your state's CSPD plan?
- To what extent were certification or licensure credits available to individuals who participated in the instruction you provided?
- In providing this instruction, to what extent did you work as part of an interdisciplinary instructor team?
- To what extent did family members of children with disabilities (consumers of services) participate as part of the instructor team?
- In terms of target audience, to what extent was the instruction "team-based" (included the key practitioners who work together on a team)?
- To what extent was the audience interdisciplinary (at least three or more disciplines were well represented)?
- To what extent were family members involved as participants?
- To what extent was the instruction actively endorsed by administrators?
- To what extent was the instruction actively attended by administrators?
- To what extent were experiential activities and modeling/demonstration opportunities provided as part of the instruction?
- To what extent were instructional strategies used for embedding/applying the new ideas/practices to the workplace?
- To what extent were instructional strategies varied and sequenced in such a way as to support different learning styles and needs?
- To what extent did participants identify specific ideas/practices that they desired to try in the workplace (an action plan)?
- To what extent was ongoing support, monitoring or technical assistance provided to participants?
- To what extent was actual impact of instruction on practices measured or evaluated?
- How often did you provide handouts/written materials to participants?

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