

AN EXAMINATION OF COLLABORATIVE TRAINING METHODS AMONG
PARTICIPANTS IN THE FAMILY CHILD CARE
PARTNERSHIPS PROGRAM

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AN EXAMINATION OF COLLABORATIVE TRAINING METHODS AMONG
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PARTNERSHIPS PROGRAM

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VITA

Jessica Brooke Manning, daughter of Bruce and Jenny Manning, was born March 3, 1983, in Dothan, Alabama. She graduated from Northside Methodist Academy as an honor graduate in 2001. She attended Wallace Community College in Dothan, Alabama, for two years, then entered Auburn University in August 2003, and graduated *magna cum laude* with a Bachelor of Arts degree in Psychology in May, 2005. She entered Auburn University Graduate School in August 2005.

THESIS ABSTRACT

AN EXAMINATION OF COLLABORATIVE TRAINING METHODS AMONG
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The purpose of the study was to examine the differences between various forms of collaborative training methods for family child care providers, and to determine which methods were most effective in increasing the use of child care practices associated with children's school readiness. Study participants were 113 family child care providers enrolled in Family Child Care Partnerships (FCCP) – a quality enhancement training program designed to provide technical assistance training to its providers using a mentoring approach.

Data from three groups of FCCP providers were analyzed. Providers were selected into groups based on their participation in the telecourse, “Going to School” (GTS) – an Alabama Public Television training series focused on helping young children (ages 3-8) succeed in school – and whether and how the GTS training was subsequently followed up through in-home mentoring by their FCCP mentor. MANOVAs were conducted to

examine changes in child care quality from Time 1 (three months prior to taking the training) to Time 2 (three months following the training) on two categories of quality indicators from the Family Day Care Rating Scale (FDCRS; Harms & Clifford, 1989

Overall, results indicated significant increases in quality occurred among all providers on the Language and Reasoning subscale of the FDCRS; however, no significant differences in the slope of change over time were found among the three provider groups. Providers in the group whose members both participated in the GTS workshop facilitated by their mentor and then received mentoring in their homes showed significant change from Time 1 to Time 2 on the Language and Reasoning quality indicators. With regard to the Learning Activities subscale of the FDCRS, no significant changes were found among providers as a whole, between the three groups, or among members of individual groups. Covariates used (Education and Child Care Income) yielded no significant effects. Limitations of the current study along with suggestions for future research are discussed.

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I. INTRODUCTION

Increasing numbers of young children are cared for by non-related adults in a variety of early child care and education settings, such as center-based child care, pre-K programs, Head Start, and family child care homes. The quality of care experienced by young children directly and indirectly affects many aspects of their growth and development including attachment, emotional competence, social and cognitive development, and overall mental health (e.g., Birch & Ladd, 1997; Geoffroy, Cote, Parent, & Seguin, 2006; NICHD Early Child Care Research Network, 2006). Therefore, it is important for child care providers to provide high quality care for their children.

Typically, research refers to three types of quality in child care. Structural quality generally refers to features of the care environment related to provider regulation and licensing, provider-child ratios, and provider care giving experience, education, and training. Process quality is a term used to refer to the nature, frequency, and quality of interactions between the provider and the children in the child care setting. Global quality, in general, refers to a broad range of environmental features associated with quality care, such as the set-up of the child care environment, the use of basic health- and safety-oriented care practices, and curricular experiences and materials targeted toward children's learning (Harms & Clifford, 1989; Tout, Zaslow, & Berry, 2006)

Professional development through education and training is one way to improve child care quality. Education of child care providers has been suggested to be a key

predictor of quality child care, especially when it included some type of early childhood material (Tout et al., 2006). Similarly, training has been suggested to be an important predictor of quality care (Arnett, 1989; Fischer & Eheart, 1991). However, child care researchers do not use standard definitions of “education” and “training,” with some research reports labeling “training” what others have operationalized as “education” and vice versa (Maxwell, Field, & Clifford, 2006). Thus, clarified definitions of each of these types of professional development are needed in order to understand what each offers to the improvement of quality care giving practices.

Using the definitions provided in the review of professional development by Maxwell et al. (2006), education will be understood in terms of “professional development activities that occur within a formal education system” (p.23); training will be understood as “professional development experiences that take place outside the formal education system” (p. 29). Education then, for example, could be classified by levels of formal education achieved as follows: (1) less than a high school diploma, (2) high school diploma/GED, (3) more than high school, less than college, (4) some college, (5) associates or technical degree, (6) bachelor’s degree, and (7) master’s degree (Maxwell et al., 2006). In contrast, training could include child-care-related content provided in workshops, at conferences, via satellite or internet-based or video-based media, through mentoring interactions, and so forth.

Within the realm of professional development, researchers have attempted to examine how education and different forms of training contribute to improved quality of child care practices. Arnett (1989) conducted a study at Bermuda College on a four course early childhood education program. After comparing participants who had been

involved in the Bermuda College education program to those who had no early childhood or child care education, Arnett suggested education did play an important role in enhancing child care quality. Participants with education targeted to child development content were reported as having greater understandings of child development and care because they were warmer, less detached, more encouraging of appropriate behaviors, and were less punitive than those individuals with no educational training from the Bermuda College program.

In addition, research has also suggested the level of college education specifically related to development or child care may impact the quality of child care. For example, completing 12-20 credit hours in community college early childhood coursework was suggested to produce significant gains in developmentally appropriate and higher quality child care settings (Cassidy, Buell, Pugh-Hoese, & Russell, 1995). Another study suggested increased levels of education and training are also likely to increase levels of other forms of professional development, such as membership in professional organizations and more professional reading (Powell & Stremmel, 1989).

Workshop trainings generally consist of lectures with minimal activity and role play. Hands-on interaction typically is not a priority in workshop training. In addition, reflection on the material that has been presented in the training is generally not offered to participants of workshop trainings (Fantuzzo, Childs, Stevenson et al., 1996). One study found workshop training to be beneficial. After completing a Head Start workshop training, which involved lectures and minimal “participatory training,” child care quality improved in the areas of knowledge, skills, and expertise (Horn-Wingerd, Caruso, Gomes-Atwood, & Golas, 1997).

However, some findings suggest workshop training is useful to improve knowledge of child care practices, while collaborative training models are more useful for behavioral changes (Kontos, Howes, & Galinsky, 1996). Researchers have found training may be best implemented using a collaborative training model approach in which training participants have support from an exemplar in the child care field. Exemplars, or mentors, may offer a more substantial way to change child care practices in order to create a higher quality of care (Dockett, Perry, & Parker, 1998; Fantuzzo, Childs, Hampton et al., 1997; Fantuzzo, Childs, Stevenson et al., 1996). One study found significant gains in knowledge and self confidence following a mentorship program that not only involved classroom meetings with a small amount of conversation, but also included home visits conducted by a mentor to offer support and help to the program participants (Mueller & Orimoto, 1995). In addition, mentorship also offers a time for participants in a program to reflect on what was learned during lectures and ask questions about how to work more efficiently and offer higher quality care. From their evaluation of a mentorship program, Dockett et al. (1998) found that forming mentor-participant relationships helps to encourage and sustain positive changes in teacher behavior, which leads to higher quality child care. When comparing collaborative training and workshop training, collaborative training was the most beneficial form of training due to the mentorship component (Fantuzzo, Childs, Hampton et al., 1997; Fantuzzo, Childs, Stevenson et al., 1996). In contrast, some research has suggested mentorship may not enhance training programs (Jackson et al., 2006). Some have suggested that it may be best to combine the two training models, taking advantage of the lecturing aspects of

workshop trainings and the mentoring and hands-on activity of collaborative trainings (Fischer & Eheart, 1991).

Family child care providers need professional development trainings as well as center based child care providers. Family child care providers are uniquely different from center based care providers. Most often the caregiver in a family child care home is responsible for everything needed to take care of children, including (but not limited to) space, materials, group size and composition, variety and appropriateness of daily activities (Fischer & Eheart, 1991), lunches, rest periods, and overall care giving practices during their 40 to 60 hour work week. Therefore, it is important for the providers to be adequately trained and prepared to handle a family child care business. Overall, family child care providers are owners of a business as well as primary caregivers to preschool age children and younger (Family Child Care Partnerships, 2006).

Research has indicated trainings to be extremely useful for family child care providers. In programs requiring workshop training as well as collaborative training techniques (mentorship, etc.), significant gains in overall knowledge and confidence were reported from the family child care providers (Mueller & Orimoto, 1995). Furthermore, obtaining support networks and the use of mentors has been suggested by research to be important predictors of quality child care (Fischer & Eheart, 1991). Family child care providers who are continually involved in a mentorship or other collaborative-type training program tend to obtain higher FDCRS scores than those providers not involved in such enhancement programs (Tout et al., 2006).

Family Child Care Partnerships (FCCP) is a child care enhancement program that works to improve family child care in the state of Alabama primarily through the use of

mentoring, supplemented with group-based workshops on various topics. The overall goal of FCCP is to provide on-going technical assistance and support to family child care providers. Mentors are trained to guide providers toward enhancing the quality of care they offer their children. As of March 2005, 21 mentors provided mentorship and training assistance to 205 primary family child care providers in the program. Mentors also provide outside trainings (workshops) in order to address providers' professional development requirements, foster a sense of community among FCCP providers, and gain professional certification. FCCP encourages providers to reach the goal of national accreditation and provides assistance to its providers in reaching accreditation, for example, by subsidizing accreditation fees (Family Child Care Partnerships, 2006).

Another important aspect of FCCP is its link to other training programs such as Alabama Public Television's (APT) video-based training curriculum, "Going to School" (GTS). FCCP mentors are trained to use the GTS program and implement it for their providers. GTS is a curriculum that helps parents, teachers, and caregivers of young children learn to guide their children toward a smoother transition to kindergarten and elementary school. The overall goal of GTS is to provide caregivers with information and support on a variety of issues faced by children ages three to eight years within the school setting. Topics addressed range from language development, learning to read and keys to learning, learning disabilities, work ethic, becoming a role model for children, and how to be responsive to children's needs.

The curriculum is classified as a telecourse, because the participants must first watch videos in order to gain an understanding of the program and its goals. The telecourse is offered on Alabama Public Television channels throughout the state on

Saturday mornings. Providers are also offered an opportunity to watch the telecourse on a videotape; either way, providers watch videos on their own (without other providers or their mentor). Overall, the telecourse is presented in approximately 30-minute lesson modules using 10 APT-provided video clips, discussion, and activities. Thereafter, as suggested by APT, providers review these modules through facilitated group meetings led by a trained APT facilitator.

As a result of its connection with APT, FCCP trained its mentors to serve as facilitators. Subsequently, a subset of these mentors elected to offer the GTS training to the providers enrolled in their caseloads, while another group of mentors did not. Some providers elected to participate in the GTS workshops while others did not. During the 3-month period when facilitated group meetings were held, mentors reinforced the GTS lessons during weekly mentor visits. Thus, the use of GTS by FCCP mentors resulted in the collaborative training approach recommended in prior research, that is, combining workshop training (in the form of a telecourse and meeting sessions) with on-going mentorship.

Little research has been done on workshops and collaborative training within the family child care field. Thus, the purpose of this study is to evaluate the efficacy of this collaborative training approach with regard to change in caregiving behaviors linked to the goals of the Going to School program. The result of using this combination of workshop training and mentorship will be compared to the results of mentorship alone among providers who were not exposed to the GTS workshops. Examining the GTS program as implemented by FCCP will help us to better understand what type of training

makes a difference for family child care providers, and it will also help us determine the effectiveness of different mentorship approaches as a form of collaborative training.

II. LITERATURE REVIEW

It is a common belief that the training of child care providers increases the quality of care provided to children. However, research surrounding training of child care providers, in particular family child care providers, is limited and in need of attention (Kontos, Howes, & Galinsky, 1996). This review examines different forms of professional development training and research findings relevant to their effectiveness in improving quality care giving practices.

Researchers have typically divided professional development of child care providers into two broad categories – education and training. However, in the past, child care researchers have not paid careful attention to defining differences between these categories. This has resulted in some researchers assessing as “training” activities what others have operationalized as “education,” and vice versa (Maxwell et al., 2006). For the purposes of this review, these terms will be defined as follows.

Education consists of curriculum-oriented, classroom-based lectures and tests, the successful completion of which results in the awarding of a certificate or degree within a formal educational system (Maxwell et al., 2006). Varying levels of education may be obtained and range from receiving a high school diploma to receiving post graduate degrees. In contrast, training refers to professional development activities occurring outside of the formal educational system (Maxwell et al., 2006).

Education as Professional Development

Several studies have examined the benefits of provider education as a means of professional development. Interested in understanding the differences among varying levels of education for child care providers, Arnett (1989) compared providers who had taken a four-course child-care education program provided by Bermuda College with a control group of providers receiving no such education, and with providers who had obtained any four-year degree in early childhood. The Bermuda College education program took two years to complete. The first year was comprised of courses with information on communication and child development, focusing primarily on process quality in the child care setting. The second year focused on child care management issues and preschool activities (related to global quality). A brief two-week practicum was held at the end of the second year. If a participant did not complete the first year or failed to complete the second year, the practicum was not completed. The goal of the study was to determine how the Bermuda College courses affected a provider's attitudes and behaviors.

Fifty-nine caregivers from 22 centers participated in the study. Participants were categorized into one of four groups or levels: (1) no formal child-care education, (2) two courses of Bermuda College classes completed, (3) four courses of Bermuda College classes completed, and (4) extensive prior training or four-year degree. The Caregiver Interaction Scale (CIS; Arnett, 1989) was used as a measure in this study to assess the quality of child care practices used by caregivers. Results indicated that as level of education increased, the degree of authoritarianism decreased (i.e., quality increased). Those participants who completed the first half of the Bermuda program tended to be less

authoritarian compared to those with no formal child-care education. Level-four providers were significantly less authoritarian than participants in levels one, two, and three. Other results indicated that with increased education, positive interactions increased, punitiveness decreased, and detachment decreased (Arnett, 1989).

An interesting note from the study is the two-week practicum (involving observations and support from an exemplar in the early childhood field) did not affect quality of care. Also, in terms of overall quality of care provided by participants as measured by the CIS, level-three providers (having completed both years of Bermuda courses, plus the practicum) did not score significantly different than level-two providers (first year of Bermuda courses completed). Although failure to impact training may be due to the short time period of the practicum, the results of the study suggested it was the content of the first year of courses (focusing on communication with children and child development) that had the greatest impact on the participants (Arnett, 1989). Results therefore indicated that formal education, containing process-quality content, has potential to affect quality child care practices.

The effects of varying levels of formal education (from completion of high school to earning a four year degree) on the knowledge and skills demonstrated by child care providers was examined by Cassidy, Buell, Pugh-Hoese, and Russell (1995). Teacher Education and Compensation Helps (TEACH) is a program designed to improve child care quality through offering child care center teachers compensation for education opportunities they master. For example, after receiving a degree (CDA, AA, or BA), the teacher receives a salary increase or a bonus. This particular study evaluated the first year of a portion of TEACH, the Early Childhood Associate Degree Scholarship Program,

which is directed toward child care teachers with no previous college education. Both global and process qualities were assessed in the study using the Early Childhood Environment Rating Scale (ECERS; Harms & Clifford, 1980) and the Infant-Toddler Environment Rating Scale (ITERS; Harms, Clifford, & Crier, 1986). In addition, teacher beliefs were measured using the Teacher Beliefs Scale (TBS; Hart et al., 1990) and the Instrumental Activities Scale (IAS; Hart et al., 1990), both of which measure what the teacher believes to be developmentally appropriate for the classroom (Cassidy et al., 1990).

Thirty-four child care providers participated in the study; nineteen participants were involved in the TEACH program, while 15 comparison participants were included who did not participate in the TEACH program. None of the participants had any college-level coursework prior to the beginning of the study. Scholarships, which included tuition, books, and travel expenses, were provided to program participants. During the first year of the program, 12-20 credit hours were completed. Classes were related to early childhood education. Following completion of the program, participants received a 5% raise or bonus (Cassidy et al., 1995).

Pretest results showed no significant differences between control and program participants; however, posttest results indicated significant gains in the scholarship group. Education resulted in a significant improvement in developmentally appropriate beliefs and practices related to overall quality. Interestingly, control group participants actually experienced a decline in scores on the ECERS and the ITERS. These findings, like Arnett's (1989) findings, indicate that increased education in early childhood-specific content is related to increases in the quality of child care practices (Cassidy et al., 1995).

In a study that examined the combination of education with prior child care experience, Powell and Stremmel (1989) sought to better understand “the relation of formal training in early childhood education and child care experience to variations in professional development behaviors” (Powell & Stremmel, 1989, p. 339). “Formal training” was conceived of as two educational levels in combination with two levels of experience. Five hundred thirty-three center child care providers participated in the study, representing 123 centers. Participants were divided into four categories as follows: (1) no/limited early childhood coursework, meaning high school level coursework (2) moderate/high early childhood coursework, meaning some college course work to graduate work (3) no/limited experience, meaning less than three years experience in child care, and (4) moderate/high experience, meaning more than three years of child care experience. Data were obtained through 18-page questionnaires administered to directors, teachers, and teacher aides in the participating centers. The questionnaire reported on demographics, job satisfaction, professional development, and job stress. Standard analysis of variance procedures (ANOVA) were used for analyses purposes.

Overall, results of interest indicated formally educated participants (those with education in early childhood) reported reading more professional publications than those with only experience; professional reading outside of work was associated with those participants who had obtained higher levels of education than among those participants with only experience. Similarly, membership in a professional organization was related to higher levels of education and experience. Based on results from this study, education enhances quality care in centers through increasing attendance at professional meetings as well as increasing the likelihood that professional materials (professional publications)

rather than lay materials (nonprofessional publications) will be used for teaching purposes (Powell & Stremmel, 1989).

Overall, the research concerning education as a form of professional development indicates that it affects child care quality. With education that specifically concentrates on content relevant to the interactions between the caregiver and the children, providers are more likely to provide quality child care through enhanced developmentally appropriate beliefs and practices.

Training as Professional Development

Training, that is, professional development activities occurring outside of the formal educational system (Maxwell et al., 2006), can further be divided into two categories – workshop training and collaborative training. Workshop training typically involves a limited number of learning sessions. These consist primarily of lectures, presentations, discussion, role play, hands-on activities, or a combination of these typically group-focused teaching techniques. Collaborative training may contain some or all of the elements of group-focused workshop training, but is characterized by the addition of some form of individually-focused mentoring, consulting, or guided practice.

Some professional development programs have combined education with a collaborative training component. For example, the Early Childhood Leadership Training Program (ECLTP) included site-specific, graduate-level coursework, covering child development, early childhood programming, organizational and leadership theory, and community relations. The program included visitation from training instructors (similar to an exemplar or mentor) in the classroom to offer support and monitor progress. Bloom and Sheerer (1992) documented training outcomes of the ECLTP, implemented in a

Chicago-area Head Start program, in two relevant areas: participant's level of perceived competence and quality of classroom teaching practices. Forty-four participants were included in the study; 22 Head Start teachers underwent the combined education and training program, while the comparison group, consisting of an additional 22 Head Start teachers, did not. The program was provided in 77, four-hour increments/sessions over a 16 month time frame.

Measures used to determine classroom quality included the Early Childhood Classroom Observation Scale (ECCOS; Bredekamp, 1986) and the Early Childhood Work Environment Survey (ECWES; Jorde-Bloom, 1989). Perceived competence was measured by the Training Needs Assessment Survey (TNAS; Bloom, Sheerer, Richard, & Britz, 1991). Results were assessed using pre-training and post-training scores on the three measures used. Statistically significant increases occurred in both perceived competence and quality of teaching practices. Participants receiving the combined education and training scored significantly higher in classroom quality than the comparison group. Forming relationships over the 16-month time frame appeared to be important in enhancing competence, as seen in the significant increase in scores on the TNAS (Bloom & Sheerer, 1992).

Fischer and Eheart (1991) examined the professional development of family child care providers, looking specifically at the contributions of education, training, and support networks on care giving quality. Education and training were treated separately to determine differences between the two. Education was examined in terms of the formal educational level achieved: no college, associate degree, bachelor degree, or masters degree; training was operationalized as any form of education outside of the formal

classroom. Thirty-six participants were included in the observation phase of the study; observations utilized the Family Day Care Rating Scale (FDCRS; Harms & Clifford, 1989). Both licensed and unlicensed providers were included in the study and were assigned to groups according to the following training and educational levels: (1) no training related to child care, (2) no college education and less than 100 hours of child care training, (3) no college degree and between 101 and 500 hours of child care training, (4) no college degree and over 500 hours of child care training, (5) associate degree in child care and no additional child care training, (6) bachelor degree in child care and no additional training, (7) associate degree in child care and additional child care training, and (8) bachelor degree and additional training in child care. Level of support was coded by giving each provider one point (on a scale of one to ten) for each support network the provider participated in. Support networks include programs such as child nutrition programs, professional association, book or toy loan programs, county referral systems, or library services.

Interestingly, results indicated that over half of the variance in FDCRS scores was determined by training within child care centers. The combination of support networks, education and training accounted for just under 70% of the variance when rating care giving practices. Overall, training and support were the most powerful predictors of child care practice and were somewhat more important than education alone. Due to the high percentage of variance explained, the authors proposed a model combining training, support, and education as an influential method of professional development (Fischer & Eheart, 1992). In addition, the authors suggest the importance of the mentorship role as

well as the time frame of training in the educational component (Bloom & Sheerer, 1992; Fischer & Eheart, 1992).

Collaborative and Workshop Training. Collaborative training and workshop training are the two forms of training most often used for both center-based and family child care providers. Studies of the effectiveness of these types of training for child care practices have examined them in combination with, as well as in contrast to, one another. This section will first review studies looking at the effectiveness of combining collaborative and workshop training techniques and then the research conducted to evaluate their respective effectiveness.

A study conducted with a Head Start faculty examined the training model used by the New England Head Start Training Center (NEHSTC), which combined collaborative training techniques with workshop training techniques in a classroom format (Horm-Wingerd, Caruso, Gomes-Atwood, & Golas, 1997). Trainings consisted of both hands-on activities and didactic activities; lectures were provided in order to make the hands-on, participatory training more meaningful. Total training times were divided into the following categories: 37% participatory training (with a form of support/mentorship), 33% discussion, 23% didactic activity, and 6% simulation (offering a time for feedback). Fifty-one trainees were included in the treatment group; in addition, a comparison group consisting of 31 Head Start teachers was used. The comparison group underwent training consisting of brochure handouts and a three-hour presentation about job stress (Horm-Wingerd et al., 1997).

Data were collected at pre-training and one and six months post-training through self report measures, supervisor report, and observation. Content, quality, and outcomes

of training were included in the evaluations. Results indicated significant gains in knowledge, skills, and expertise for the treatment group at post-training compared with pre-training. In contrast, the comparison group reported no significant change in knowledge, skills, or expertise from pre to post training. Hands-on activities and dialogue to exchange ideas were both reported by trainees in the treatment group as contributing to the high level of quality of the program. Quality was determined through reports of satisfaction, competence, and performance from participants as well as observers and training guides. Higher quality was described in the study as significant gains post-training in the areas of satisfaction, competence, and performance (Horm-Wingerd et al., 1997). In other words, support offered through activity and dialogue proved to be beneficial by offering participants reinforcement to what they had learned in the lecture portion of the training. Activity and dialogue combined acted as a mentorship component; mentorship can be equated as support. “Findings clearly suggest that the NEHSTC experience had a positive impact on trainees’ perceptions of their competence and on their actual job performance as rated by supervisors and as independently observed” (Horm-Wingerd et al., 1997, p. 422).

Horm-Wingerd et al. (1997) studied a training program that specifically included social learning theory. Support, discussion, feedback, and lectures were all offered in the NEHSTC model therefore combining what may be termed workshop training and collaborative training. Findings indicated positive outcomes for this form of training, indicating it may be beneficial to combine forms of workshop training with forms collaborative training.

An evaluation of the Family-to-Family training program specifically considered family child care and the use of collaborative training techniques combined with workshop training techniques (Kontos et al., 1996). The study's purpose was to help determine which providers seek training and the overall effects of training as presented by the Family-to-Family program (Kontos et al., 1996). Trainings consisted of class time totaling 15 to 20 hours in addition to home visits and observations by an exemplar, consisting of three hour visits. The comparison group also received training, but not to the extent used by Family-to-Family trainings; the comparison group only participated in one-time lectures on the same topics as what the Family-to-Family training group was receiving. Topics of training ranged from business practices and safety to child development and age-appropriate activities. One hundred thirty providers received Family-to-Family training, and 112 providers participated as a comparison group. The comparison group consisted of providers who had received some type of training in the past but were not involved in the Family-to-Family training.

Data were collected through observation and use of the FDCRS. Results of interest suggest that training provided significant improvement in organization and quality. For example, although 45% of participants reported making no changes in frequency of planning and 26% reported planning less frequently, 29% did report they planned more frequently post-training than pre-training. The chi square analysis suggested there was a positive relationship between training and frequency of planning. Business and safety practices were significantly improved because of training. The findings suggested there were no changes in process quality (responsiveness, sensitivity, harshness, etc.). When considering "observable differences" in global quality

(preparedness, developmentally appropriate activities, etc.) the findings suggested that 19% of the participants made these differences and improved while 73% had no difference; the other 8% got observably worse. Overall, the results of the study indicated modest positive effects on care giving quality following Family-to-Family training (Kontos et al., 1996).

The Kontos et al. (1996) study indicates the Family-to-Family program made providers more aware of their work in family child care compared to those who did not undergo treatment. For example, participants were reported as making improvements in the global quality they provided to their children post-training. The authors therefore made some suggestions for future research on trainings and how trainings can be improved; they based their conclusions on the idea that the Family-to-Family collaborative form of training produced an increase in global quality for those who participated. Multiple sessions of some length and home visits may help to improve quality in training. In addition, the authors noted the importance of combining both classroom or workshop training and mentoring/home visits. Classroom training or workshop training may help to increase knowledge, while mentoring and collaborative training can help increase behavioral changes.

Further elaboration of the benefits of collaborative training is offered by researchers who set out to examine its effectiveness relative to workshop training in Head Start centers. Basing studies on Bandura's social learning theory, which suggests that behavior is affected by its interactions with the environment and an individual's cognition, Fantuzzo and colleagues suggested that a training model that encourages active participation (yielding practice and feedback) along with social reinforcement would

result in better child care practices than a training model consisting primarily of a lecture format with minimal role play and little opportunity for participants to observe and reflect (Fantuzzo, Childs, Hampton et al., 1997; Fantuzzo, Childs, Stevenson et al., 1996).

Fantuzzo and colleagues were interested in collaborative and workshop training as used in Head Start training centers. Two separate studies were conducted. In each, classrooms were randomly assigned to either the collaborative training group or the workshop training group. In the first study, collaborative training took place over a 12-week period with six different training sessions – five of which lasted a half day, one of which lasted a full day. Mentors assisted the Head Start teachers with determining areas needing attention and guidelines needing to be followed after the teacher and mentor had viewed videotapes of a typical classroom day. Following mentorship, teachers were encouraged during collaborative training to apply what they had learned during a period of field experience in which participants were guided and assisted within each of their classrooms. In contrast to the collaborative training approach, the workshop training group received lectures, presentations, and discussion; minimal role play was also used during an intensive four day training period. Participants attended two sessions per day, each of which lasted approximately 2-3 hours (Fantuzzo et al., 1996).

Data were collected through observations and questionnaires, including standardized measures such as the Active Involvement in Training Scale (AITS). Also used was the Training Satisfaction Scale, the Parent Affirmation Scale, Parent Role in the Classroom Scale, and the Adult-Child Interaction Coding System. According to participants, being active (collaborative training) seemed to hold their interest better than lectures and presentations as used by the workshop training participants. In addition,

participants in the collaborative training group tended to initiate more interactions (conversations and praise) with children than did the workshop training group. More positive outcomes, such as appropriate use of praise, more frequent conversation with children, and more developmentally appropriate adult-child interactions, were associated with the collaborative training approach. Overall, participants in the collaborative training group reported higher levels of satisfaction with training than the workshop training group (Fantuzzo, Childs, Stevenson et al., 1996).

In the second study, Fantuzzo, Childs, Hampton et al. (1997) conducted a study similar to the preceding study, with the objective of determining effectiveness of an improved collaborative training model. A major difference in the 1996 and 1997 studies was the area in which the collaborative training group received training. The 1996 study was enhanced in 1997 by adding hands-on demonstrations within each individual's classroom rather than in a training room designed to be similar to a classroom. Training taking place within the actual classrooms is considered "field experience." In the 1997 study, collaborative training and workshop training both consisted of 20 hours of training during a 10 week period, and both groups were provided equal resources (the same information) with which to implement the training. In accordance with social learning theory, collaborative training teachers were given the opportunity to observe, experience, reflect, and receive guidance in the classroom environment from an exemplar individual involved in Head Start. In contrast, workshop teachers were involved in lecture format training sessions led by individuals not involved in Head Start.

Following observational assessment and questionnaire data retrieval, results indicated that collaborative training yielded significantly higher levels of satisfaction with

training, and that teachers in this group displayed higher levels of positive adult-child interactions (Fantuzzo, Childs, Hampton et al., 1997). Teachers from the collaborative group also indicated anecdotally an increased sense of how to work more effectively with colleagues. In sum, results from both studies indicated collaborative training to yield more positive results than the workshop training model.

Several studies have specifically addressed the role of mentorship in collaborative-type training models, as well as how mentors form relationships with their protégé counterparts. A review by Dockett, Perry, and Parker (1998) of the Early Literacy Component (ELC) of the National Equity Program for Schools (NEPS) in Australia examined changes in educator practices, support for professional development, and student learning outcomes following training with use of a mentorship component. The ELC used regional conferences, follow ups after the conferences, and professional support/mentorship, as strategies aimed to improve literacy for preschool children. The evaluation team made multiple visits to collect observations and administer interviews to each preschool classroom teacher. Evaluations consisted of four visits. The purpose of the first visit was to inform the participants about what was involved in the evaluation. Data collection at the second visit focused on reading and how the school funded their reading program, and the third visit focused on writing and funding. The final visit was to ensure any misconceptions from previous visits were clarified (Dockett et al., 1998).

Findings indicated that changes in teaching behavior were most often seen in teachers who were involved in a strategy that allowed them to reflect on what they had engaged in and how they taught their literacy material provided by the ELC programs. Evaluators found that mentors were a fundamental aspect in supporting changes in child

care practices. Mutual respect, interdependence, and trust were identified as possible causes of a positive mentor-participant relationship. The authors suggested that effective programs should include application and reflection opportunities for the classroom, appropriate time for teachers to converse with each other, and appropriate mentoring and professional support. Overall, mentoring can be seen as a way to maintain a program and enhance training; reflection on teaching strategies can help to improve professional development (Dockett et al., 1998).

Pavia, Nissen, Hawkins, Monroe, and Filimon-Denyen (2003) suggested similar findings as Dockett et al. (1998) concerning the mentor relationship. Their aim was to discover what the benefits of a mentor-protégé relationship may be and what affects the relationship. In addition, they were interested in discovering how the relationship evolves and changes over time. During a nine month study, six protégés with a child development degree and one year experience were paired with six mentors who had at least five years experience and an early childhood degree. Mentor-protégé pairs were involved in seven meetings; the first meeting was an orientation meeting at which pairs were formed, and the remaining meetings were for specialized speakers and contact opportunities for the pairs. Small group sessions were also held, and participants were encouraged to maintain one-on-one contact with their mentor or protégé throughout the study. Interviews consisting of open-ended questions about mentoring were offered to the participants as a form of qualitative data collection. Interviews were videotaped as well as the seven meetings which occurred in seven intervals (Pavia et al., 2003).

Results identified difficulties associated with forming the mentor-protégé relationship which included pressure, lack of time, physical distance between mentor and

protégé, and incompatibility with each other. Benefits of the mentor relationships included a sense of “professional unity” through small group sessions, lack of stagnation in planning, and support for organizing materials and curricula (Pavia et al., 2003). The authors suggested that what makes an effective mentor relationship work includes using small group sessions, allotting appropriate time for contact due to busy schedules, goal setting, and making possible a time for reflection.

Research specifically related to family child care suggests mentoring may be an added component that can help to enhance training. Mueller and Orimoto (1995) studied factors related to recruiting, training, and retaining family child care providers. Specifically the researchers wanted to know what impact rural training programs have on recruiting providers, and what societal factors contribute to recruitment and training. Two rural, state funded programs were examined consisting of 125 family child care provider participants. These programs are used as a licensing technique. Training consisted of small group classroom didactic, experienced home visits from a mentor (an experienced family child care provider), discussion, and peer support groups. Pre and post training assessments were conducted in the following seven categories: (1) schedules and routines, (2) health and safety, (3) room arrangement, (4) group guidance and child management, (5) building a partnership with parents, (6) bookkeeping and taxes, and (7) child development. Post training, self report assessments were made concerning changes in attitudes and beliefs about one’s own child-care skills, interests, and intentions. Interviews were also conducted two months after training (Mueller & Orimoto, 1995).

Results related to training are of particular interest. Following successful recruiting by the programs, training was analyzed. Overall, knowledge gain appeared to

be significant in the areas of schedules and routines, group guidance and child management, bookkeeping and taxes, and child development; these areas should lead to an enhanced quality in child care. Significant gains were not noticed in the other areas of partnerships with parents, health and safety, and room arrangement. Significant gains in self confidence were also reported by participants as a result of training. Due to difficulty in retaining providers, the authors suggest having a variety of levels of training which will ensure flexibility for providers and offer multiple opportunities for training (Mueller & Orimoto, 1995).

In contrast to studies finding mentorship to be beneficial, Jackson et al. (2006) suggest mentorship may not necessarily add any benefit to a training program. HeadsUp! Reading (HUR) is a literacy-based training program for early childhood educators. It is a 15-week live satellite-broadcast training series that includes 44 hours of research-based literacy components for young children. The broadcasts were arranged in three hours series in which a talk-show format was used to relay information to participants. In addition, a facilitator was used for each HUR group to allow for didactic opportunities to discuss the series topics. Reflection, questions, and discussion were included to enhance learning opportunities. According to Jackson et al. (2006), the HUR literacy program was chosen because it:

(1) was based on evidenced-based literacy practices, (2) promoted instructional strategies that included naturalistic embedded opportunities, as well as, explicit exposure to key concepts, (3) had a strong emphasis on both written language awareness and phonological awareness, and (4) was based on developmentally appropriate practices (p. 215).

Research was conducted to determine if participation in HUR would affect language and literacy skills in preschool children. Jackson et al. (2006) compared 14 early childhood educators who participated in the literacy program (HUR-only) to eight early childhood educators who participated in the program and were mentored throughout their participation in the program (HUR + mentoring). A control group (17 participants) was also used that did not participate in HUR. The HUR + mentoring group of participants utilized mentors who were highly trained and qualified; mentors had a minimum of a master's degree and 10 years of experience in early childhood education. Mentors were specifically trained for this study to enhance a participant's scores based on the Early Childhood Environment Rating Scale - Revised (ECERS-R). The mentor was available for a two month period for two to four hour time periods (Jackson et al., 2006).

Quality was assessed through observer ratings using the Early Language and Literacy Classroom Observation (ELLCO; Smith et al., 2002), and the Early Childhood Environment Rating Scale – Revised (ECERS-R; Harms et al., 1998). Evaluations of provider quality were made both pre and post training, and were conducted inside the classroom. Children were assessed pre and post test using various measures that are indicative of vocabulary, verbal analogies, picture naming, letter identification, and writing. Results from the study showed the HUR-only group had a significant improvement in their classroom quality compared to the control early childhood educators. However, the HUR + mentoring group did not show significant improvements over the HUR-only group or the control group (Jackson et al., 2006). Thus, overall, the program was successful; however, mentoring did not ensure significant gains for classroom and quality as measured by the ECERS. The HUR program was suggested to

have been beneficial; however, it was only beneficial in one area measured by the ELLCO – language and literacy (Jackson et al., 2006).

The researchers offered speculation as to why the mentoring may not have been effective for this particular study. First, sample size for the study was small (eight HUR + mentoring participants) which may have contributed to not finding any significant results. Second, self selection of mentors introduced confounding variables that may have skewed the results. Third, mentoring was offered toward the end of the HUR program which may not have been sufficient time to impact teaching and outcomes of children. Finally, mentoring may not have been intense enough to cause any differences (Jackson et al., 2006).

To summarize, research presented here suggests that collaborative forms of training are superior in achieving changes in child care practices to workshop forms of training. Those studies focusing on mentorship as a variable of interest when attempting to enhance child care quality typically find that mentorship can be successful as a way to enhance child care training and quality. Studies such as Jackson et al. (2006), showing mentoring to be less effective, suggest limitations such as sample size or time frames may have been at fault. On the whole, mentorship as a form of professional development appears to be beneficial.

Summary

Published research has demonstrated the need for training and the effectiveness of training child care providers through collaboration, workshops, and education. Overall, the research has demonstrated varying forms of training can be effective at improving quality of care. Some studies have indicated that combining education with a form of

training and a support network may be most beneficial (Fischer & Eheart, 1992), while other studies advocate the use of collaborative training models involving hands-on activities and the active participation and feedback of a trainer/mentor (Fantuzzo, Childs, Hampton et al., 1997).

Thus, findings from studies examining primarily center-based child care and preparatory programs, such as Head Start, suggest that both education and training, particularly when they include collaborative elements like mentoring, are professional development options that have potential to improve quality of care. We are left, however, with the question of what effects such training may have in the family child care setting.

Family Child Care Partnerships as a Collaborative Training Model

The Family Child Care Partnerships (FCCP) program is a child care quality enhancement program intended to improve family child care practices and to assist providers to achieve accreditation credentials from the National Association of Family Child Care. Its primary method of training is through the use of trained mentors who work in the homes of enrolled family child care providers generally on a weekly basis. A secondary method of training provided by FCCP is monthly group-based workshop trainings. In addition, mentors inform and encourage providers to develop their professional networks through membership in one or more family child care associations as well as by participating in other training opportunities provided by other groups or agencies.

An example of such a training opportunity is Alabama Public Television's training program titled "Going to School" (GTS). Most FCCP mentors have been trained to use the GTS program, and a number of them have implemented it for the providers

attending monthly group workshop trainings. The aims of the current study are to examine the effects on child care quality practices for providers participating in GTS training. Because some providers have also had the benefit of mentoring, the study will compare quality among providers who received targeted mentoring on GTS materials and those who did not.

Basing our hypotheses on social learning theory, we hypothesize collaborative training will make a difference in the quality of family child care providers due to the support, reflection, and feedback offered during the mentoring component of the GTS training used by FCCP mentors. Groups 1 and 2 are most similar to the collaborative training modules. Therefore, our hypotheses suggest group 1 (trained mentor with involved provider) may be most likely to improve the quality of their child care practices as determined by the subscales used from the FDCRS. In addition, group 2 (trained mentor with uninvolved provider) may likely improve in the quality they provide, however not to the extent of group 1. Group 3 (untrained mentor with involved provider) most likely resembles the workshop training module, and we therefore hypothesize the quality may not enhance as well as in groups 1 and 2 when considering the FDCRS subscales. Group 4 (untrained mentor with uninvolved provider) is hypothesized to make no significant changes in the quality of care they provide according to the FDCRS subscales, because it has no focus on the GTS program; however, some enhancement will be expected due to providers having mentorship. The extent of the impact of the program should rely on the involvement of both the mentor and provider in the implementation of the collaborative and workshop methods of training.

II. METHOD

Participants

Participants in the study were 113 family child care providers enrolled in the Family Childcare Partnerships program (FCCP). In order for data from providers to be selected for use in the analyses for this study, participants must have had their child care quality assessed by their FCCP mentor prior to and following their participation in the Going to School training program (GTS) and must have attended at least two out of the three of the GTS training workshops offered. Lists of eligible participants were obtained from the Managing Director of FCCP.

Of those eligible to participate, three groups of participants were formed for comparison purposes, defined according to whether and how a mentor and her provider had combined to participate in GTS. The first group consisted of FCCP providers whose mentor had been trained to implement GTS training in the suggested group workshop format (referred to as the Collaborative Group); providers participated in the mentor-led workshops. The second group consisted of providers whose FCCP mentor had been trained to implement GTS training, but the provider did not participate in the group workshop training (referred to as the Mentored Group). Therefore, providers in this group had not had the GTS workshops, but were being mentored by a mentor who was focusing on GTS with other providers. The third group consisted of providers who did not participate in GTS training and were mentored by FCCP mentors who did not offer and

were not focusing on implementing GTS in any form (referred to as the Non-GTS Group). A fourth group, intended to include providers of mentors not trained to implement the GTS program who had independently enrolled in the GTS training (facilitated by someone other than their mentor), could not be analyzed because only one provider could be found. Note that regardless of whether providers or their mentors had participated in the GTS training, providers across all groups received on-going mentoring via home visits, which is typical of the FCCP program. Groups are referred to in the following manner: (1) Collaborative; (2) Mentored; and (3) Non-GTS.

Procedures

Training Requirements

Mentors had the choice to participate in the one-day, intensive train-the-trainer GTS training facilitated by Alabama Public Television. A total of 19 mentors completed the training. Subsequently, mentors could choose to schedule GTS training as the topic of three consecutive monthly provider meetings. (All mentors are required to hold group meetings on a monthly basis for FCCP providers and other child care professionals in their geographic area.) A total of 11 mentors set up GTS training in this way. In order to receive certificates of completion, providers were required to attend three workshops (the orientation workshop, mid-meeting workshop, and the final meeting workshop) during which the 10 GTS video-based curriculum segments were shown and/or discussed. In addition, providers needed to have scored an average of 85% correct on tests given at the end of each video. A specific note concerning GTS is that providers were required either to watch the 10 GTS videos on their own or to watch the GTS series on Alabama Public Television stations on Saturday mornings.

Content covered in the videos or on the television episodes included various topics in preparing children for school beyond the preschool classroom. Video one concerned responsive care giving and how to meet needs of children – everything from physical needs to emotional needs such as talking to the children, singing to them, and reading to them. Video two emphasized helping children develop language, while video three guided participants to a better understanding of encouraging exploration in children. Video four encouraged participants to be consistent and fair when offering guidance to children and limiting their behaviors. Videos five and six concerned the importance of parents and family members in helping children succeed. Video seven gave characteristics of successful students and how to measure school progress. The eighth video focused on promoting communication skills in children through language and literacy development. The final two videos (nine and ten) concluded the series by helping participants understand individuality among children and how to build on an individual child’s strengths and weaknesses.

Data Collection

In general, provider background information and quality assessment data for FCCP are collected by mentors within the first four weeks of participation in the FCCP program. Mentors observe and report on provider quality on a quarterly basis thereafter. For the purposes of this study, assessments of quality were examined at two time periods. Time 1 mentor-reported quality data for providers in Group 1 (Collaborative) and Group 2 (Mentored) were taken from the assessment conducted in the quarter immediately preceding the mentor’s scheduling of the three-session GTS training. Time 2 quality data for these providers were taken from the quarterly assessment nearest to the time after the

mentor had completed the series of GTS workshops (usually within 6 months from the Time 1 quality data).

Group 3 (Non-GTS) Time 1 quality data were taken from the quarterly report most closely corresponding to the training dates of those mentors who had implemented GTS. Time 2 data were taken from the quarterly assessment 6 months following that of Time 1 data.

The total number of participants for the study was 113; group 1 (Collaborative Group) contained 45 participants, while group 2 (Mentored Group) contained 35 participants. Group 3 (Non-GTS Group) contained 33 participants.

Measures

Quality Care Assessments

In order to assess improvement from Time 1 to Time 2 in caregiver quality, two of the subscales of the Family Day Care Rating Scale (FDCRS) were examined. The FDCRS is a 32 item observation scale that covers six categories: (1) space and furnishings, (2) basic care, (3) language and reasoning, (4) learning activities, (5) social development, and (6) adult needs (Harms & Clifford, 1989). Items on the FDCRS are scored on a scale of 1 to 7, with a score of 1 indicating poorer practices and 7 indicating best practices. All items offer a description for scoring at the 1, 3, 5, and 7 anchor points of the scale with 1 meaning inadequate, 3 meaning minimal, 5 meaning good, and 7 meaning excellent. Each anchor point contains specific requirements for the score given. When all requirements for an anchor score are met, the observer determines if it is appropriate to rate the participant at the next anchor point. An even number as a score on an item indicates that the provider met all of the requirements for the previous anchor but

not all of the requirements of the next anchor. Average scores ranging from 5 to 7 indicate high quality care, 3 to 4.9 indicate average quality care, and 1 to 2.9 indicates inadequate quality.

Published research examining the reliability of FDCRS has indicated the scale is internally consistent (Howes & Stewart, 1987) and valid (Pepper & Stuart, 1985).

Although no interrater reliability data are available to determine reliability of FCCP mentor's use of the FDCRS, the variability in scores reported by the mentors within their respective caseloads over time indicate discriminative use of the FDCRS (Miller, 2005).

The two subscales chosen to best represent content areas targeted by GTS include the Language and Reasoning and Learning Activities portions of the FDCRS; these subscales are included in the Appendix. Language and Reasoning skills assessed include 4 items: informal use of language, helping children understand language, helping children use language, and helping children reason. The FDCRS considers the developmental differences between infants/toddlers and children 2 years and older by offering observers separate sections to rate caregivers on their behaviors with either group. Learning Activities in the FDCRS includes 9 items, including eye-hand coordination, art, music and movement, sand and water play, dramatic play, blocks, use of TV, schedule of daily activities, and supervision of play indoors and outdoors. For this study, the provider's average FDCRS score for each subscale was used to indicate quality practices in each content area.

Provider Background Variables

Demographic characteristics, such as type of child care home, previous years of care giving experience, education, and SES were collected from the FCCP enrollment

information. Because of their potential impact on the ability of providers to understand and implement the care giving practices promoted in GTS, provider SES and education were used as control variables in this study.

Education. Provider's level of education was assessed as a categorical variable. Providers reported on their highest level of educational achievement over 5 levels ranging from less than a high school education, GED, high school diploma, some college but no degree, to an advanced college degree.

Caregiver SES. Providers reported the level of their annual household income. They were given the option to choose from nine levels of household income ranging from less than \$10,000 to over \$80,000. In addition, providers reported the level of their child care income choosing from seven levels ranging from less than \$10,000 to over \$60,000.

Plan of Analyses

After data were entered and proofed, FDCRS subscales were computed. Descriptive statistics for study variables were examined for unusual values and to describe general features of study data. Preliminary analyses of measures of caregiver quality and providers background variables were conducted. Repeated measures, multiple analyses of variance (MANOVA) were used to determine whether significant differences exist between Time 1 and Time 2 quality data and how FDCRS subscale scores differed across the three groups.

IV. RESULTS

Data are first presented describing the providers participating in the study. Chi-square analyses examining possible demographic differences among the Collaborative, Mentored, and Non GTS groups are included. Subsequently, results from preliminary analyses of variance are reported to describe differences in group means for each outcome variable. Finally, results are presented of multiple analyses of variance procedures examining the changes providers exhibited on Language and Reasoning and Learning Activities across time.

Provider and Training Group Characteristics

Demographic characteristics are presented in Table 1 for participants in general and for each group of participants. As a whole, providers with a family child care home (up to six children) comprised 62% of the sample, while the remaining 38% were providers operating a group family child care home (up to 12 children). Half of the providers reported having obtained a high school diploma; of the remaining half of the sample, 41% reported having had some college or receiving an associate's degree, and 9% reported having a four year degree. Only 13% of the sample earned above \$30,000 in child care income alone, while over half of providers (51%) earned between \$10,001 and \$20,000. Fourteen percent of the providers were under the age of 30. The remaining providers were distributed within the 31 to above 51 age categories, with a majority of the providers being in the 41-50 age range. The ethnicity category was split evenly

among white and minority providers. However, chi-square analyses indicated the three groups differed significantly in racial composition ($\chi^2 = 12.15, p = .002$), with more minority providers than would be expected being members of the Collaborative group and fewer than expected being members of the Mentored group. Forty percent of the sample made less than \$30,000 in household income; 33% made between \$30,001 and \$40,000, and the remaining 27% made above \$40,000.

Table 1. Demographic Characteristics by Group and Chi-Square Analysis

| Characteristic | Collaborative | Mentored | Non GTS | χ^2 | All |
|-------------------|---------------|----------|---------|----------|-------|
| Child care type | N=45 | N=35 | N=31 | 1.86 | N=111 |
| Family home | 56% | 63% | 71% | | 62% |
| Group family home | 44% | 37% | 29% | | 38% |
| Education | N=44 | N=35 | N=29 | 2.47 | N=108 |
| High school/GED | 50% | 46% | 55% | | 50% |
| Some college | 32% | 29% | 31% | | 31% |
| Associates degree | 9% | 11% | 10% | | 10% |
| Four year degree | 9% | 14% | 4% | | 9% |
| Child care income | N=40 | N=34 | N=26 | 8.36 | N=100 |
| \$10,000 or less | 5% | 9% | 23% | | 11% |
| \$10,001-\$20,000 | 55% | 44% | 54% | | 51% |
| \$20,001-\$30,000 | 25% | 29% | 19% | | 25% |
| \$30,001 or above | 15% | 18% | 4% | | 13% |
| Age | N=42 | N=34 | N=30 | 7.26 | N=106 |
| 30 and under | 12% | 12% | 20% | | 14% |
| 31-40 | 29% | 12% | 23% | | 22% |
| 41-50 | 38% | 32% | 30% | | 34% |
| >51 | 21% | 44% | 27% | | 30% |
| Ethnicity | N=45 | N=35 | N=30 | 12.15** | N=110 |
| White | 38% | 74% | 40% | | 50% |
| Minorities | 62% | 26% | 60% | | 50% |
| Household income | N=41 | N=34 | N=27 | 11.18~ | N=102 |
| \$20,000 or less | 17% | 15% | 22% | | 18% |
| \$20,001-\$30,000 | 15% | 18% | 41% | | 22% |
| \$30,001-\$40,000 | 34% | 35% | 30% | | 33% |
| \$40,001 or above | 34% | 32% | 7% | | 27% |

~ $p = .08$

** $p < .01$

Preliminary Analyses

Analyses of variance (ANOVA) were conducted in order to examine the relationship between group membership and Language and Reasoning and Learning Activities scores. Differences between group means on the Language and Reasoning subscale were significant at Time 1, $F(2,111) = 3.27, p = .042$, and Time 2, $F(2,111) = 8.94, p = .000$. Differences in Learning Activities means at Time 1, $F(2,111) = 9.13, p = .000$, and Time 2, $F(2,111) = 10.35, p = .000$, were also significant.

Post hoc analyses of the differences among Language and Reasoning means, using Tukey's HSD test, indicated the Collaborative group had a significantly higher mean at Time 1 ($\bar{x} = 5.26$) than the Mentored group ($\bar{x} = 4.64$). The Non GTS group ($\bar{x} = 4.78$) was not significantly different from either the Collaborative or Mentored groups at Time 1. Concerning Learning Activities, the Collaborative group mean ($\bar{x} = 5.17$) was significantly higher than both the Mentored ($\bar{x} = 4.15$) and the Non GTS group mean ($\bar{x} = 4.46$). However, there was no difference between the group means of the Mentored and Non GTS groups.

Post hoc analyses with regard to Time 2 utilized the Dunnett's T3 test due to significance found in a test of homogeneity of variance for both Language and Reasoning and Learning Activities means. The Language and Reasoning mean at Time 2 for the Collaborative group ($\bar{x} = 5.63$) was significantly higher than the Mentored group ($\bar{x} = 4.59$). The Non GTS group ($\bar{x} = 5.06$) showed no significant differences compared with the other groups. Additionally, the Learning Activities mean at Time 2 was significantly higher for the Collaborative group ($\bar{x} = 5.17$) than for either the Mentored

($\bar{x} = 4.30$) or Non GTS groups ($\bar{x} = 4.49$). The Non GTS and Mentored groups did not significantly differ from each other.

Analyses of Change by Group

To determine whether provider scores on Language and Reasoning and Learning Activities subscales changed significantly from Time 1 to Time 2, repeated measures multivariate analyses of variance (MANOVA) were conducted. For Language and Reasoning, a significant increase across time occurred across the entire sample of providers, $F(1, 111) = 5.15, p = .025$. However, the interaction between Group and Language and Reasoning was non-significant, $F(2, 111) = 2.13, p = .123$. Plots of the estimated marginal means for the three groups are found in Figure 1. The addition of Child Care Income and Education as covariates in two subsequent MANCOVAs resulted in similarly non-significant findings.

A MANOVA was also conducted to examine differences within individual groups on Language and Reasoning scores from Time 1 to Time 2. The Collaborative group showed significant change from Time 1 to Time 2, $F(1, 44) = 8.94, p = .005$. The Mentored group, $F(1, 35) = .085, p = .772$, and the Non GTS group, $F(1, 32) = 2.80, p = .104$, did not have significant changes in their Language and Reasoning scores from Time 1 to Time 2.

Results of a MANOVA conducted on Learning Activities showed that the increase in scores from Time 1 to Time 2 was not significant across the entire sample of providers, $F(1, 111) = 1.40, p = .240$, nor was the interaction between Group and Learning Activities significant, $F(2, 111) = .175, p = .840$. Plots of the estimated marginal means for the three groups are found in Figure 2. The addition of Child Care

Income and Education as covariates in two subsequent MANCOVAs resulted in similarly non-significant findings.

A MANOVA was also conducted to examine differences within individual groups on Learning Activities scores from Time 1 to Time 2. No significant changes occurred from Time 1 to Time 2 on Learning Activities scores for any of the three groups.

Figure 1. Plot of the Estimated Marginal Means of Language and Reasoning Scores.

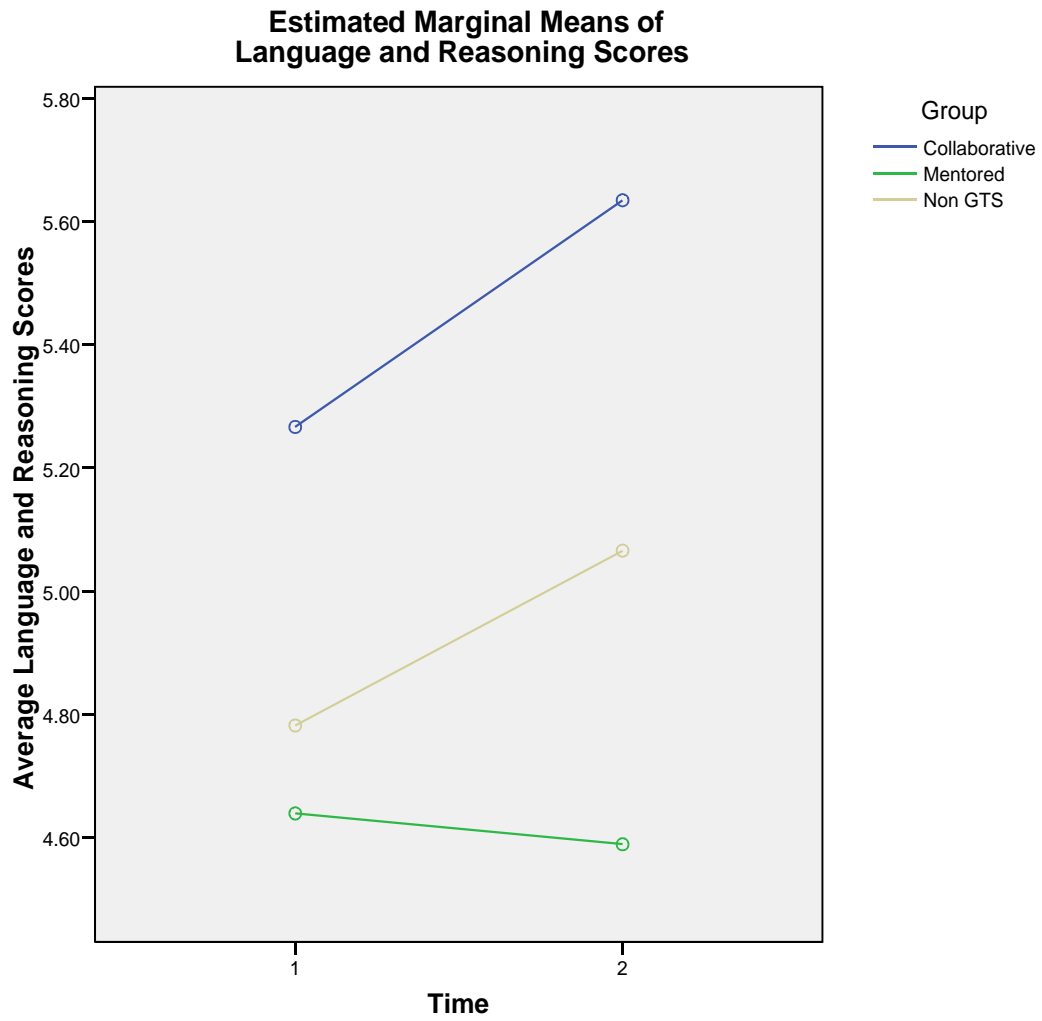
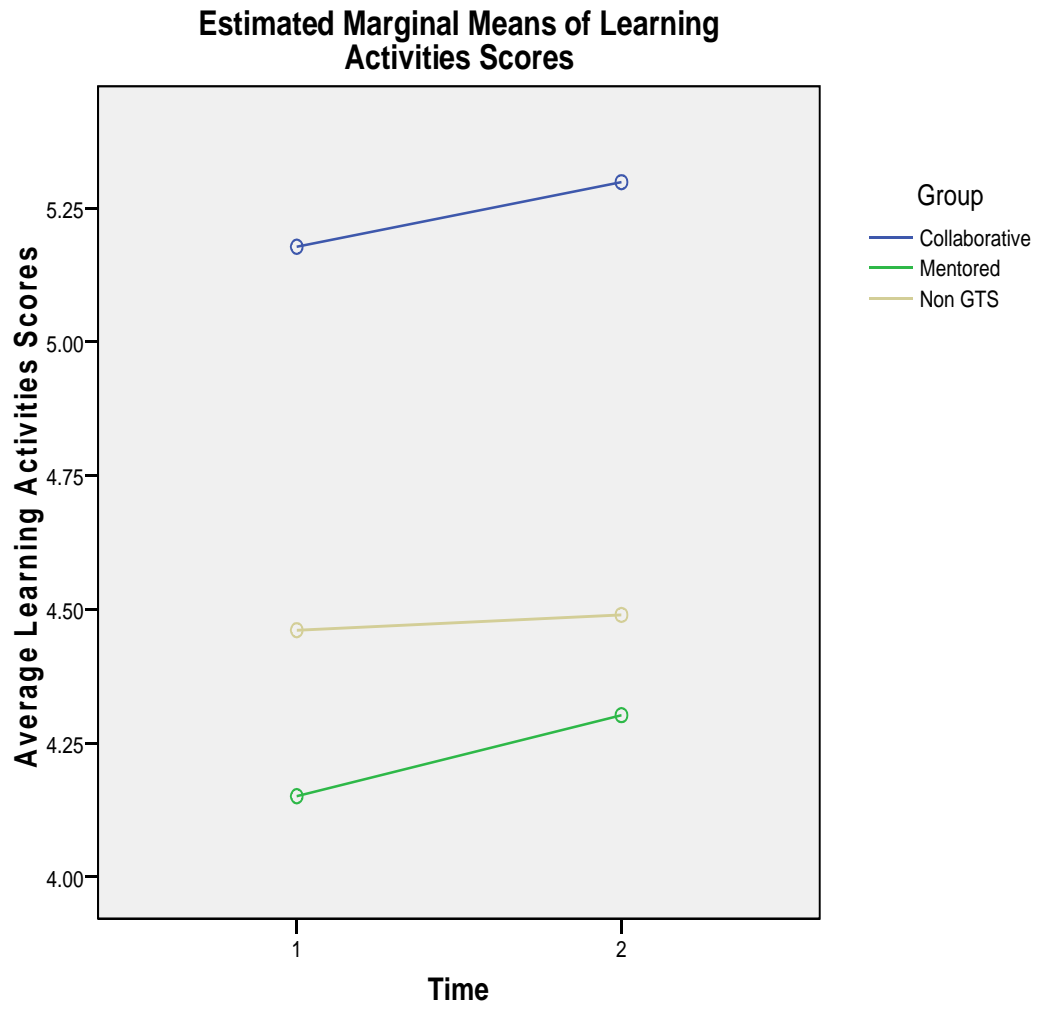


Figure 2. Plot of the Estimated Marginal Means of Learning Activities Scores.



Post Hoc Analyses

Original study questions involved Language and Reasoning and Learning Activities subscales. However, upon closer examination of the GTS program and the FDCRS subscales, it became evident a reasonable possibility existed for the Social Development subscale to be affected by the GTS program. The Social Development subscale contains three items and includes “tone,” “discipline,” and “cultural awareness.” GTS covers topics such as fostering social development skills, attitudes, and behaviors, as well as introducing to participants the importance of social development for success in school.

ANOVAs were conducted in order to examine the relationship between group membership and Social Development at Time 1 and Time 2. Differences between group means on the Social Development subscale were significant at Time 1, $F(2, 106) = 4.614, p = .012$ and Time 2, $F(2, 106) = 7.601, p = .001$.

Post Hoc analyses of the differences among Social Development means, using Tukey’s HSD test, indicated the Collaborative group ($\bar{x} = 5.14$) had a significantly higher mean at Time 1 than the Mentored group ($\bar{x} = 4.43$). In addition, the Non-GTS group ($\bar{x} = 5.13$) also had a significantly higher mean at Time 1 than the Mentored group. Using Dunnett’s T3 test (due to significance found in a test of homogeneity of variance for the Social Development mean at Time 2), the Collaborative group ($\bar{x} = 5.41$) had a significantly higher mean than the Mentored group ($\bar{x} = 4.62$). The Non-GTS group ($\bar{x} = 5.09$) was not significantly different than either the Collaborative or the Mentored group.

To determine whether provider scores on the Social Development subscale changed significantly from Time 1 to Time 2, MANOVAs were conducted. Results for Social Development showed that the increase in scores from Time 1 to Time 2 was not significant across the entire sample of providers, $F(1, 106) = 1.465, p = .229$, nor was the interaction between Group and Social Development significant, $F(2, 106) = .712, p = .493$. The addition of Child Care Income and Education as covariates in two subsequent MANCOVAs resulted in similarly non-significant findings. Individual group means were examined to determine significant increases for individual groups; however, no significant changes were seen within any group.

V. DISCUSSION

Research has suggested training is beneficial for the enhancement of child care providers and is a useful professional development tool. The purpose of this study was to evaluate different forms of collaborative training surrounding the application of a video-based training program designed to educate caregivers about children's school readiness and transition from preschool to kindergarten and elementary school. Specifically, the study compared a collaborative training approach, which combined group workshops and targeted individual mentoring, with two different mentoring-only approaches. The primary goal was to determine which types of training are effective in enhancing provider practices related to children's language and reasoning skills and learning activities.

It was expected that providers in the Collaborative Group, who received both workshop and targeted mentoring, would show the most improvement when compared to the providers in the Mentored Group (who did not receive the workshop training, but were mentored by GTS-trained mentors) and the Non-GTS group (who neither received the workshop training nor had mentors specifically focusing on GTS). Findings indicated significant increases in quality occurred overall on providers' Language and Reasoning practices. However, the three training approaches did not yield significantly different results when comparing groups on the changes expected on Language and Reasoning and Learning Activities. When groups were considered individually, providers in the Collaborative group showed significant positive improvement on practices related to

Language and Reasoning, while the providers in each of the other two groups evidenced no significant differences over time in their practices.

The remainder of this discussion will focus on the implications for past and future research. In addition, implications for child care training and practice are presented. Limitations as well as contributions for the study are also discussed.

Implications for Research and Practice

Prior research has considered various forms of training. However, a direct comparison between types of collaborative training has not been addressed, and in particular, collaborative training has not been examined in the family child care setting. The most closely connected research was found to have been conducted by Fantuzzo and colleagues (1996; 1997) in which Head Start teachers were assigned to either a Collaborative Training group (workshop plus on-site expert input) or a Workshop Training group (workshop only). The results for these two studies indicated the Collaborative Training group exhibited more positive behaviors and outcomes than the Workshop Training group. Higher levels of satisfaction, more positive adult-child interactions, and more effective work with colleagues were all experiences of the Collaborative Training group (Fantuzzo, Childs, Hampton, et al., 1997; Fantuzzo, Childs, Stevenson, et al., 1996).

The findings of the present study are similar in that the workshop plus mentoring approach yielded better practices within the Collaborative group than in the Mentored or Non-GTS groups. Therefore, mentoring may not be as beneficial alone as it is in combination with workshop training when targeting specific caregiver practices. However, without a group of providers who participated only in the workshop (without

any mentoring) it is not possible to determine whether the targeted mentorship or the GTS workshop was the cause of the training improvement. Nevertheless, the current results indicate, at least, that the combination of GTS workshop training and mentorship enhanced child care practices related to children's language and reasoning.

This conclusion is consistent with several studies of center-based child care providers which suggested that mentoring may be a way to maintain the gains resulting from a training workshop or program as well as to enhance the training through retaining a participant's interest and attention to the training objectives (Dockett et al., 1998; Kontos et al., 1996; Mueller & Orimoto, 1995). Findings from the present study also suggest similar implications for family child care training. Confirming previous studies, the use of mentorship should not be left out of trainings, but should be used as an enhancement tool in various forms of collaborative trainings.

As a whole, previous literature suggests that combining collaborative and workshop training may yield the most positive results (Bloom & Sheerer, 1992; Fantuzzo, Childs, Hampton et al., 1997; Fantuzzo, Childs, Stevenson et al., 1996; Horm-Wingerd et al., 1997). This study appears to confirm this recommendation. When examining increases in quality practices over time, providers in the Collaboration group showed significant improvement over time, whereas those providers in each of the other two groups did not show significant change..

It should be noted that the Collaborative group had significantly higher scores at Time 1 on language and reasoning practices than the Mentored group and significantly higher scores at Time 1 on the learning activity practices than both of the other groups. These differences suggest that the providers in the Collaborative group may have been

composed of individuals with more interest and motivation to increase their skills from the start, specifically in contrast to the Mentored group of providers who had the same option to take the GTS workshop training from their mentor, but did not choose to do so. This is one explanation of systematic, within time differences between the Collaborative Group and other groups seen on all subscales. Future studies should randomize participants to avoid this problem. When deciding what to include in a training model, it is important to recognize differences in providers' motivation and interest in participating and in changing their practices. The use of a collaborative training model (combining both workshop training and mentorship) appears to lead to better results and more enhanced learning for motivated providers.

In addition to enhancing learning benefits for the provider participants in training, collaborative training models, such as the Collaborative group in the current study, may also increase sensitivity of the mentor toward the child care provider. Mentors may be more likely to be more fully engaged with a child care provider knowing the provider is interested in the material and desiring more guidance in the specific areas addressed in training – such as GTS. Mentorship becoming more sensitized and dedicated may lead to enhanced training outcomes. Therefore, future trainings should include both workshop and mentorship aspects in order to help ensure more positive training outcomes.

Finally, along with ensuring representative sampling, larger sampling, and other methodological issues in research are addressed, further research is needed in the area of professional development for family child care providers. In addition to recognizing the need for focused research in the area of social development, it is necessary to also recognize need for more research in the area of learning activities which was not

impacted as greatly as language and reasoning by GTS. Future research should focus their efforts in the area of learning activities for children in child care facilities, because quality child care should encompass every aspect of growth and development. Overall classroom quality depends not only on the social development of children as seen in Language and Reasoning, but also the ability of a provider to provide stimulating activities for children. As social development and school readiness topics increase in importance within the child care field, family child care providers in particular should receive training within these areas in order to enhance their professional development and increase the quality of care they provide to children.

Limitations of the Study

Sample size is the first limitation of concern in this study. Although most studies examining family child care and professional development have small samples, larger samples would help to detect significant differences between groups. Future efforts should consider painstakingly gathering larger family child care provider samples in order to gain more accurate information. Specifically, for example, the Jackson et al. (1996) study had a total of 39 participants. Thirty-four child care providers participated in a study conducted by Cassidy et al. (1995) which considered the TEACH program. Toward the higher end of the spectrum, 125 family child care providers participated in a study by Mueller and Orimoto (1995). The current study contained a total of 113 providers. Although sample size of the current study was small, it is equally comparable to that of relevant and similar research.

In addition to having a small sample size, the sample was a non-representative sample, making findings difficult to generalize to all family child care providers, as the

FCCP sample does not describe all Alabama's family child care providers and other providers across the nation.

Measurement issues also pose more limitations for the study. For example, considering individual items of FDCRS subscales may have made a difference in the results and possibly led to more findings more specifically informative about aspects of the GTS curriculum. For example, for the Language and Reasoning subscale it would perhaps be beneficial to more closely examine the individual items "Informal use of language" or "Helping children use language."

Another limitation to the current study was the method of data collection. Data were collected using observational methods. The use of other forms of data collection, such as qualitative data obtained from the child care providers themselves, might have strengthened the study. In addition, data were collected by the same individual doing the trainings and implementing the mentorship component. Mentors were both seeking changes in the practices of their providers and assessing their providers' performance. Mentors who facilitated GTS workshops had some providers participate and others who did not; mentors may have scored one provider differently than another provider due to the level of interest and commitment the provider expressed. Knowing that some providers were more interested in participating may have led to mentors giving higher scores to the Collaborative group or lower scores to the Mentored group. Ideally, observers of caregiver quality would have been independent of responsibility for achieving changes in provider practices as well as independent of the knowledge about whether providers and mentors had participated in the GTS program. In sum, the mentors may have been more sensitive to the lack of change in the Mentored group, and overall,

multiple methods of data collection would help to enhance this study and future similar studies.

As researchers, we are not exactly certain how focused the mentoring visits in the home were toward the GTS program. The Collaborative group is assumed to have focused more on GTS than the other two groups. However, the degree of the mentorship focus was not measured. This raises the possibility that the provider may have had more pressing needs than GTS goals on the day the mentor was going to implement GTS mentoring. Again, interest of the provider may also cause the mentor to focus more or less on GTS than on other child care issues.

Contributions of the Study

Of particular concern for research on child care is the fact that the type of child care setting most often studied is center-based child care. More research is needed concerning professional development of family child care providers, and more specifically, research needs to address the use of various forms of training for family child care providers. This study is a small contribution to the need for research in the family child care area as well as the need for more focused comparisons of collaborative forms of child care trainings. In addition, this study offers a unique contribution to past research in that it examines a video-based training program. Further research is also needed in the area of media-based training curricula.

This study offers some insight into the effectiveness of collaborative training methods. It is worth noting that on language and reasoning practices, the average provider increased the quality of her practices significantly over time. Thus, mentoring does show promise in making a difference in provider quality. The combination of

workshop training supported by targeted mentoring also shows promise as a means to increase quality child care practices, particularly among providers motivated to learn about the particular training topic.

The form of training that is most useful may somewhat depend on the participant. For example, the providers with higher numbers of children to care for or who have limited time and resources that would allow them to attend training may find the mentoring form of training to best suit their lifestyles, making them more open to using the material in video-based trainings such as GTS. Although GTS required providers to attend outside meetings, having a mentor may lead the provider to feel her time spent going to meetings was worthwhile. Another consideration when forming a training or deciding which format to use, is having an understanding of different learning styles. Overall, however, the present study along with past research and theory suggests use of both mentorship and workshops introduces reinforcement and socialization that may enhance knowledge gain and increase learning.

In addition to making suggestions concerning the various types of trainings, this study also has implications for GTS as well as FCCP. GTS, for example, may want to consider following up with the child care providers following participation in training in order to better determine how providers grasp the material. In addition, GTS may want to consider working more closely with FCCP and other similar programs. Allowing more formalized meeting between GTS and FCCP may allow providers involved in GTS to better grasp the material due to repetition and another form of accountability.

Implementing grades at the end of each session should continue to be a portion of participation in GTS. Including this allows a form of accountability the child care

provider needs in order to obtain the greatest degree of learning offered in training.

However, GTS may need to consider introducing stronger forms of accountability for the providers in order to yield stronger results. For example, use of essay questions (rather than only multiple choice questions) or having an oral examine with a trainer or mentor may cause the GTS participant to become more motivated to learn and retain the information presented in the program.

The current study also offers insight into things FCCP may do differently, such as encouraging more networking among the child care providers themselves. One of the unmeasured benefits of the Collaborative group may be the professional networking that informally happened in the group meetings. The Collaborative group was the only group that received group meetings focused on GTS material followed by GTS focused mentoring in the home. Previous research suggests having networking opportunities allowed providers to share ideas and provide a sense of “professional unity” (Pavia, et al., 2003). Although child care providers may find it difficult to meet with each other on a regular basis, the networking may lead to enhanced training benefits and self esteem.

In addition to encouraging more networking and offering, FCCP should consider developing trainings which are collaborative (using both mentorship and workshops). Mentorship within the FCCP program is beneficial; however ensuring it is targeted to follow up on workshop training topics may increase the benefits of the FCCP program. Collaborative training should become a higher priority for FCCP due to the accountability aspect the workshop portion of Collaborative training offers to providers. Accountability includes targeted mentoring - taking the use of resources found at the workshop or group meeting into the child care provider’s home.

Several questions concerning professional development of child care providers still remain, especially when considering GTS training and other forms of collaboration. For example, why was there no main effect found for the Learning Activities subscale of the FDCRS following GTS? Perhaps the time period between training and data collection was not a long enough time period for change to take place. However, Learning Activities is a portion of school readiness, and GTS may want to consider making Learning Activities a stronger focus in the training.

Clarification is still needed for specific forms of child care training. For example, research still needs to investigate further how to make collaborative forms of training more effective than the results of the current study and past research have indicated. Overall, collaborative forms of training have been shown to be beneficial, yet from the current study collaborative training is suggested to not be significantly more beneficial in changing child care practices when compared with mentoring alone. In addition, the exact components and usefulness of specific mentorship components in collaborative training is not known. Future research should also consider examining how mentorship (when used alone or in collaborative training) can be more effective.

Conclusions

The current study has implications for child care practice and training. First, collaborative training may appeal to more people involved in family child care due to being more informative than workshop training or mentorship alone. The workshop portion of the training offers a sense of education while the mentorship offers both a sense of reliability and accountability for both the mentor and the provider. As previously discussed, collaborative training may be best when workshop training is combined with a

mentorship component. In sum, the strength of the workshop (offering information in an educationally-oriented group setting) is a weakness of the mentorship component; mentoring has its own strength (offering hands-on guidance and focused learning targeted to the actual child care context), which is a weakness of the workshop training.

This study seems to suggest mentorship in conjunction with workshops has potential to enhance caregiving by having a form of accountability present. Some concepts not easily learned from a book will be best explained using mentorship, while other concepts may be learned best in the workshop format. The current study offers evidence that for family child care providers, collaborative training, combining workshop and mentoring, can be a positive addition to the list of options available as forms of professional development.

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APPENDIX

Family Day Care Rating Scale: Language and Reasoning and Learning Activities Subscales

| | | | | | |
|------------------------------------------|-------------------------------------------------|-------------------------|----------------------------------------------|---------------------------------------------|--|
| LANGUAGE AND REASONING | | | | | |
| 14. Informal use of language | 16. Helping children use language | 19. Art | 23. Blocks | Total Learning Activities (Items 18 -26) | |
| a. infants/toddlers | 17. Helping children reason | 20. Music and movement | 24. Use of T.V. | SOCIAL DEVELOPMENT | |
| 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 | 27. Tone | |
| b. 2 years and older | Total Language and Reasoning (Items 14 - 17) | 21. Sand and water play | 25. Schedule of daily activities | 1 2 3 4 5 6 7 | |
| 1 2 3 4 5 6 7 | | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 | | |
| 15. Helping children understand language | LEARNING ACTIVITIES | 22. Dramatic play | 26. Supervision of play indoors and outdoors | 28. Discipline | |
| a. infants/toddlers | 18. Eye-hand coordination | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 | |
| 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 | | | | |
| b. 2 years and older | | | | | |
| 1 2 3 4 5 6 7 | | | | | |