The New England Head Start Teaching Center (NEHSTC) is one of 14 federally funded programs created to test the efficacy of participatory, hands-on training for enhancing Head Start service delivery. An outcome evaluation of the program was conducted after 3 years of operation. The research design of the evaluation was a nonequivalent comparison group design with information collected prior to training, and 1 and 6 months after training. Comparison subjects were drawn from Head Start agencies in the New England region who had not participated in NEHSTC training. Data were collected through surveys and on-site observations of randomly selected trainees 6 months after training. A total of 239 trainees comprised the NEHSTC group and 130 the comparison group. Training was provided to Head Start staff in groups of up to 12 persons during a 3- to 5-day period of residence at the Teaching Center and included areas such as cultural diversity, individualizing services, home visiting, food safety, director development, and child-initiated activities. Four types of learning activities were used: didactic, group discussion, simulation/role play, and participatory. The findings demonstrated that the NEHSTC was successful in implementing high quality, participatory training within the context of an on-going Head Start program. The outcome findings indicated that staff who participated in the NEHSTC training demonstrated gains in knowledge, skills, and attitudes compared to similar Head Start employees who did not receive such training. The positive findings suggest that participatory training should be included in the menu of training options available to Head Start. (Author/KB)
Abstract

The design and evaluation of the New England Head Start Teaching Center (NEHSTC), one of 14 federally funded programs created to test the efficacy of participatory, hands-on training for enhancing Head Start service delivery, is the focus of this paper. The unique characteristics of the NEHSTC and the outcome evaluation results from 3 years of training will be presented. The findings demonstrate the NEHSTC was successful in implementing high quality, participatory training within the context of an ongoing Head Start program. Outcome findings indicate staff who participated in the NEHSTC trainings demonstrated gains in knowledge, skills, and attitudes compared to similar Head Start employees who did not receive training. The positive findings suggest that participatory training should be included in the menu of training options available. Because of the unique size and scope of Head Start, the success of ongoing efforts to improve the quality of its programs and services are particularly significant. Within Head Start, this discussion of quality enhancements via innovative training models is timely given the advent of the new performance standards and the restructuring of the Training and Technical Assistance system. Additionally, the findings are relevant for broader efforts to improve early care and education programs nationwide.

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Introduction

The Head Start Teaching Center was a federally funded national demonstration project designed to test the efficacy of participatory training for staff in all components of Head Start services. When the 5 year project was initiated by the Administration for Children, Youth, and Families (ACYF) of the U.S. Department of Health and Human Services in 1992, 14 Head Start Teaching Centers were funded including at least one in each Head Start region. As required by ACYF, each Teaching Center project included an independent evaluation to ascertain the effectiveness of training.

The 14 Head Start Teaching Centers were individual Head Start programs deemed by ACYF as providing exemplary Head Start services in all component areas and as capable of providing quality training to visiting Head Start staff. Head Start Teaching Centers were expected to provide training that was "participatory in nature, relying on observation, guided practice and immediate feedback" (Federal Register, 1992) in each of the four major Head Start components: education, health, social services, and parent involvement. The Teaching Center concept was based on the teaching hospital model in medicine that provides quality medical services to patients and training to visiting doctors.

The 14 Head Start Teaching Centers funded by ACYF represented diverse approaches to implementing the Teaching Center model. Approaches ranged from the training of trainers to training of individual Head Start direct service or administrative staff. While some programs provided for training a relatively small number of persons with ongoing follow-up activities over an extended period, others consisted of 3 to 5 day training sessions without any follow-up training and therefore had the potential to provide training for several hundred of trainees in a given year. Evaluation data collected over the 5 year demonstration project should add considerably to our knowledge of the efficacy of these different approaches to participatory training in early childhood education.

The New England Head Start Teaching Center

The New England Head Start Teaching Center (NEHSTC), designed and implemented by CHILD, Inc., a Head Start grantee located in Rhode Island, provided intensive training during a relatively short (3 to 5 day) period of residence at the Teaching Center. The model permitted a large number of Head Start
staff from New England to be trained in a variety of relevant topics including, cultural diversity, individualizing services for teachers and family workers, home visitor training, home visiting program development for Head Start directors, food safety and sanitation, menu planning, and child initiated activities. Although the NEHSTC served a large number of trainees in a given year, the nature of the training design ensured that individual needs were accommodated. The overall participatory model used at the NEHSTC consisted of four types of learning activities: didactic, group discussion, simulation/role play, and participatory. The rationale for using didactic lessons, discussion, and simulation activities at the NEHSTC was to provide foundation information necessary to make the participatory training most meaningful, rather than as stand alone information delivery approaches typical of conference training formats. Additionally, enrollment for each training session was limited to no more than 12 participants. This format allowed for ample discussion, guided practice, individualized feedback, and participant sharing. This format also enabled trainees to play an active role in shaping the training to meet their own needs. Although a training syllabus was prepared by the trainer, the nature of the model encouraged trainees to initiate discussion of their own concerns and thus individualize the training.

Training at the NEHSTC was conducted by the Teaching Center Project Coordinator, a staff member hired to coordinate the project, and other component coordinators (e.g., Education, Parent Involvement, Health, and Social Services) as well as the Executive Director. Other Head Start staff assisted with the training by serving as “training partners” during participatory sessions. Training partners were direct service staff (e.g. classroom teachers, home visitors, cooks) of the Head Start Teaching Center who facilitated the observational and guided practice training activities.

Evaluation Plan

The evaluation plan for the NEHSTC consisted of two major components:

1. a formative evaluation of the development of the NEHSTC during the planning year (1992-93).

The purpose was to examine the process of developing the teaching center including management issues, design of training strategies and topics, preparation of staff for training roles, and evaluation of
pilot training. The results of the formative evaluation are reported in Caruso, Horm-Wingerd, and Dickinson, 1996.

2. an outcome evaluation to assess the impact of training during the implementation years of NEHSTC training (1993-97). The outcome evaluation used a nonequivalent comparison group design with information collected prior to training, and 1 and 6 months after training. Comparison subjects were drawn from Head Start agencies in the New England region that had not participated in NEHSTC training. Training and comparison subjects and their supervisors provided information via mailed surveys that were specifically designed to assess knowledge, skills, and competencies in the training content areas. On-site observations of randomly selected trainees occurred 6 months after training as an independent assessment of the impact of training (see Table 1).

Results

Demographics

Subjects. During the 1993-94, 94-95, and 95-96 training years, 239 trainees participated in the NEHSTC training and 130 individuals participated in the comparison group "treatment," a stress reduction or conflict resolution workshop. Of the 239 potential subjects in the training group, 136 (56.90%) supplied pretraining and 1 month posttraining data and 91 (38.08%) supplied pretraining, 1 month, and 6 month posttraining data. Of the 130 potential comparisons, 97 (74.62%) supplied pretraining and 1 month posttraining data and 41 (31.54%) supplied pretraining, 1 month, and 6 month posttraining data. In general, the subjects for the study were white females between the ages of 25 and 45. The typical subject was married with an average of 2 children and an annual family income of $20,000 to $30,000. The majority had some college or an associates degree and had worked in Head Start from 3 to 5 years.

Analyses indicated that no significant differences existed between individuals (both trainee and comparison subjects) who did and did not complete all portions of the evaluation component on the seven personal (sex, age, marital status, ethnicity, education, income, number of children) and five employee characteristics (current Head Start position, years in current position, total years in Head Start, total years...
working with children in non-Head Start positions, training on similar topics) analyzed. Analyses also indicated no significant within group differences on these same variables for both the training and comparison groups. Due to the lack of significant differences within and between groups related to attrition, primary analyses included only those trainees (91) and comparisons (41) with complete evaluation data (pretraining, 1 month and 6 months posttraining). In addition, secondary analyses were completed using subjects who had pretraining and 1 month posttraining data (136 training and 97 comparison subject).

Program. Using t-tests and chi-squares it was found that comparison and trainee subjects differed on two of the six program characteristics analyzed. Individuals in the comparison group came from programs that served a more urban population (87% of the comparisons; 63% of the training group). In addition, the comparisons' programs had more center-based slots (M = 282) than trainees' programs (M = 201). Other than these two differences, analyses indicated that trainees and comparisons came from similar programs in terms of the average number of children served (241 for trainees, 306 for comparisons); average number of home-based slots (41 for trainees; 38 for comparisons); number of sites (8 for both), and rate of compliance with Head Start performance standards.

Implementation of training

Nature of training. Information collected during training years 1, 2, and 3 indicated that the NEHSTC was successful in capitalizing on the power of the teaching center model by including ample participatory training. The average percent of training time allocated to participatory activities was 37% with 23% didactic, 33% discussion, and 6% simulation. Table 2 lists the percent of time allocated to these four different learning activities for all training topics delivered.

Quality of training. Both trainee ratings and independent observations completed by the evaluation team suggested the training was high quality. Overall, trainees rated the content of training as relevant and useful, the trainers as knowledgeable and organized, and the "laboratory" nature of the participatory training as invaluable. The evaluation team provided high ratings for the overall quality of the various learning activities. On a 9-point scale, the mean ratings provided by the evaluation team were
Outcomes: Impact of training

**Primary Analyses.** Analysis of the outcomes for training years 1, 2, and 3 indicated that the NEHSTC training had a significant impact. A 2 (group) X 2 (time) repeated measures analysis of covariance, using the self-ratings collected prior to training as the covariate, indicated a significant difference between the groups over time, Wilks' Lambda $\Lambda(2, 128) = 12.23, p = .001$. Figure 1 shows the adjusted least square means. A Tukey's HSD indicated trainees reported significant gains in knowledge, skills, and expertise from pretraining (adjusted $M = 53.39$) to posttraining at 1 month (adjusted $M = 59.10$) and 6 months (adjusted $M = 61.15$). The comparisons did not report significant gains from pretraining (adjusted $M = 53.39$) to posttraining at 1 month (adjusted $M = 54.71$) and 6 months (adjusted $M = 53.63$).

A similar pattern was found in the analysis of supervisor ratings. A 2 (group) X 2 (time) repeated measures analysis of covariance, using the supervisor pretraining ratings as the covariate, indicated a significant difference between the groups over time, Wilks' Lambda $\Lambda(2, 127) = 14.62, p = .001$. Figure 2 shows the adjusted least square means for the supervisor ratings of trainees and comparisons. Again using a Tukey's HSD, supervisors reported significant gains for trainees from pretraining (adjusted $M = 51.62$) to posttraining at 1 month (adjusted $M = 57.68$) and 6 months (adjusted $M = 60.74$). The supervisors did not report significant gains for the comparisons from pretraining (adjusted $M = 51.60$) to posttraining at 1 month (adjusted $M = 55.24$) and 6 months (adjusted $M = 50.83$).

**Secondary analyses.** Secondary analyses of covariance, using only the 1 month data as the dependent variables, were conducted to investigate if attrition between the 1 and 6 month data collection points impacted the outcomes. With the self-ratings, a significant difference was found between trainee ($n = 136$; adjusted $M = 61.3$) and comparison ($n = 97$; adjusted $M = 55.2$) groups at 1 month, $F(1,230) = 26.99, p = .001$. A similar significant difference was found for the supervisor ratings provided for trainee (adjusted $M = 59.45$) and comparison (adjusted $M = 55.06$) groups at 1 month, $F(1,230) = 14.68, p = .001$. These significant differences were consistent with the results of the ANCOVAs that included both...
the 1 and 6 month data. These consistencies suggest the significant differences found in the primary analyses were not related to attrition, including potential differential drop out as a function of subjects' perceived competence.

Conclusion

Overall, the results of this evaluation of the NEHSTC present a positive assessment based on 3 years of experience in implementing the participatory model as delineated in the ACYF national demonstration project. At 1 and 6 months after training, trainees reported increased knowledge, skills and expertise while comparison group subjects did not report such gains. Importantly, this self-report finding was corroborated by independent reports of the trainees' supervisors and independent observations of their job performance 6 months after training.

These findings clearly have implications for future training initiatives given the continuing emphasis on quality of Head Start services (U.S. Department of Health and Human Services, 1993). The positive findings, in terms of both training quality and impact, suggest that the Teaching Center participatory model has significant potential as a new approach to Head Start staff development. Given the recent restructuring of the training and technical assistance system in conjunction with the new Head Start Performance Standards, information concerning training formats that enhance quality are particularly relevant. The results reported in this study suggest that participatory training should be included in the menu of training options available within Head Start. Additionally, these findings are relevant for broader efforts to improve early care and education programs nationwide.
References


Table 1

**Outcome Evaluation Design**

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Training Groups</th>
<th>Comparison Group</th>
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<tbody>
<tr>
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<td>Group</td>
<td></td>
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<tr>
<td>1. Pre-training data</td>
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<td>- trainee self-report</td>
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<td>X</td>
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<tr>
<td>- supervisor report</td>
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<td>X</td>
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<tr>
<td>2. Evaluation of training sessions</td>
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<td></td>
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<tr>
<td>- observation</td>
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</tr>
<tr>
<td>- records review</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>- trainee report</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>3. Evaluation of training outcomes</td>
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<tr>
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<tr>
<td>1 month</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>6 months</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>- supervisor report</td>
<td></td>
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</tr>
<tr>
<td>1 month</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>6 months</td>
<td>X</td>
<td>X</td>
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<td>- observation in trainee program</td>
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<td>6 months</td>
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1_0
Table 2
Percent of Time Allocated to Different Learning Activities for 93-96 Trainings

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<tr>
<th>Learning Activities</th>
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<th>Didactic</th>
<th>Discussion</th>
<th>Simulation</th>
<th>Participatory</th>
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<td>49</td>
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<td></td>
<td>Diversity</td>
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<td></td>
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<tr>
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<td>Food Safety</td>
<td>26</td>
<td>19</td>
<td>15</td>
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<td></td>
<td>Individualizing</td>
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<td>24</td>
<td>9</td>
<td>50</td>
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</tr>
<tr>
<td></td>
<td>Individualizing</td>
<td>19</td>
<td>29</td>
<td>6</td>
<td>46</td>
</tr>
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<td></td>
<td>Services/Education</td>
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<td></td>
<td>Child Initiated</td>
<td>32</td>
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<td>27</td>
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<tr>
<td></td>
<td>Curriculum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Menu Planning</td>
<td>22</td>
<td>50</td>
<td>3</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Home Visitor</td>
<td>22</td>
<td>29</td>
<td>2</td>
<td>46</td>
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<tr>
<td></td>
<td>Average Percent</td>
<td>23</td>
<td>33</td>
<td>6</td>
<td>37</td>
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</table>

Note. Numbers in table are percentages of time allocated to different learning activities.
Table 3

Means for Self and Supervisor Ratings for Trainee and Comparison Subjects

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<tr>
<th>Ratings</th>
<th>Self</th>
<th>Supervisor</th>
</tr>
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<tr>
<td>Group</td>
<td>pre</td>
<td>1 month</td>
</tr>
<tr>
<td>Trainee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n = 91</td>
<td>51.66</td>
<td>57.99</td>
</tr>
<tr>
<td></td>
<td>(9.73)</td>
<td>(9.17)</td>
</tr>
<tr>
<td>Comparison</td>
<td>57.23</td>
<td>57.19</td>
</tr>
<tr>
<td>n = 41</td>
<td>(10.47)</td>
<td>(11.80)</td>
</tr>
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</table>

Note. Standard deviations are reported in parentheses.
Adjusted Means for Self-Ratings of Trainee and Comparison Groups

![Diagram showing adjusted means for self-ratings of trainee and comparison groups over time.](image)
Adjusted Means for Supervisor Ratings of Trainee and Comparison Groups

Ratings

Figure 2

- Trainee
- Comparison

Pre-training | 1 month | 6 months

Time

Supervisor Means

50.00       55.00       60.00       65.00
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Title: Head Start Teaching Center: Outcome evaluation of 3 years of participatory training

Author(s): Caruso, D.A., Horm-Wingerd, D.M., & Golas, J.C.

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