Quality Improvement in Early Childhood Teacher Education: Faculty Perspectives and Recommendations for the Future

Marilou Hyson
National Association for the Education of Young Children (NAEYC)
George Mason University

Heather Biggar Tomlinson
National Association for the Education of Young Children (NAEYC)

Carol A. S. Morris
George Mason University

Abstract

Approximately 1,200 institutions of higher education in the United States offer a degree in early childhood education, but recent research questions the strength of the relationship between teachers having a degree and benefits to child development and learning. However, there has been little empirical focus on the *quality* of degree programs. This exploratory study examined faculty perspectives on program priorities and factors that may facilitate or impede program quality-improvement efforts. Data were obtained from an online survey of early childhood education program administrators and faculty (*N* = 231); additional telephone interview data were obtained from 20 survey participants. Faculty reported relying on national and state standards for guidance in designing and implementing their programs. Results indicated inadequate knowledge of current early childhood research and theory on the part of some faculty. Faculty-reported priorities to enhance program quality included strengthening student competencies (the highest priority being implementing curriculum effectively), building faculty capacity, and accreditation. When describing their program's organizational climate, most faculty reported being in implementation or maintenance mode, building mode, and change mode. Those who described themselves as being in survival mode were more likely to report low philosophical and financial support from their institutions. To improve program quality, faculty cited the following needs: more faculty, more time, institutional recognition of their program's value, financial support, professional development opportunities, and institutional understanding of the larger context of early childhood education. The paper concludes with recommendations for research, policy, and technical assistance and support for teacher preparation programs in the United States.

Introduction

"My gut is there are born teachers who need to be polished, and then there are people who can learn to be teachers."

"I have some really awful teachers that are in the schools, but I don't think that it rests as much with the degree as with the school conferring the degree."

—Interviewees, early childhood teacher education program leaders

Having a degree in early childhood education can be a factor in a teacher's effectiveness, but a degree alone does not guarantee teacher competence. The quality of the higher education program—that is, how well it prepares new teachers by, for example, grounding them in knowledge of child development and academic subject areas and providing opportunities to practice new teaching skills—may be a more critical factor in a teacher's ability to influence children's development and learning in a positive way than having a degree per se.

This paper aims to improve our understanding of the relationship between the quality of early childhood education programs in institutions of higher education in the United States and children's development and learning. We do this not by directly assessing this relationship but by exploring the contexts for quality improvement in these programs as viewed through the eyes of faculty and other program leaders. We begin by discussing the significance of quality issues within higher education programs and why there is cause for concern about their quality.

Although teacher education programs within the U.S. higher education system are the focus of this paper, one must also keep in mind the broader context of early childhood professional development. By itself, no teacher education program—however high its quality—can be entirely responsible for ensuring teachers' continuing knowledge and skills or children's healthy development and productive learning. Sustained, high-quality teaching requires continuous high-quality support through professional development opportunities, worthy compensation, and other factors. Much research suggests that new-teacher supports like public schools' "induction year" initiatives or various coaching and mentoring models are necessary complements to teacher education programs (Burchinal, Hyson, & Zaslow, 2008; Darling-Hammond, 1997; Scherer, 1999). Additionally, the characteristics of the centers, schools, and other settings in which graduates work certainly contribute to differences in children's developmental and educational gains (Vu, Jeon, & Howes, 2008).

Within this broader context, there are persuasive reasons to give special attention to the quality of higher education programs.

The Need to Examine Quality Issues in Early Childhood Teacher Preparation Programs

According to data collected in 2004 (Maxwell, Lim, & Early, 2006), more than 1,200 institutions of higher education offer some kind of degree program in early childhood education. Of these, roughly 40% offer a bachelor's degree and 60% an associate's degree, with some institutions offering both. Based on national average graduation rates, these programs are producing great numbers of early childhood educators—at least 36,000 per year. In turn, these teachers have the potential to influence the future development and learning of children in all the Head Start, child care, prekindergarten, and other programs in which they work.

Despite this potential, recent reports describing a reanalysis of data from seven large-scale studies of child care and early education (Early et al., 2007) and from a multi-state prekindergarten study (Early et al., 2006) give cause for concern about whether the benefit of having teachers with a bachelor's or associate's degree is being realized. Although limited by the measures available for the reanalysis, the results call into question previous correlational research that has tended to associate higher levels of teachers' education with better teaching and better outcomes for children (e.g., Burchinal, Cryer, Clifford, & Howes, 2002; NICHD Early Childhood Research Network, 2000; Phillipsen, Burchinal, Howes, & Cryer, 1997). However, neither these studies nor the more recent analyses have examined quality, and quality-improvement efforts, in teacher education programs. It is unlikely that a degree from a low-quality program would result in excellent or perhaps even adequate teaching and, therefore, in significant benefits for children. For this reason, a productive next step may be to examine the extent to which high quality may or may not be present in early childhood teacher education programs and what factors may facilitate and/or impede efforts by these programs to raise their quality.

Defining Quality in Early Childhood Teacher Education Programs

Although there is agreement that early childhood teacher professional development (both preservice and inservice) should be of high quality, the nature of that quality has not been consistently defined. Researchers have recently made efforts to articulate quality criteria for professional development that occurs in settings beyond the higher education system (e.g., Tout, Zaslow, & Berry, 2005; Winton, McCollum, & Catlett, 2007; Zaslow & Martinez-Beck, 2005). Frequently, high quality is described (1) in terms of teacher behaviors that are correlated with a positive impact on children's development and learning (e.g., when teachers provide specific and engaging feedback to children, children show improved social competence) (Wilson, Pianta, & Stuhlman, 2007) or (2) when such information is available, in terms of direct benefits to young children and their families.

Within the higher education system of teacher preparation, there has been a move away from so-called "input-based" criteria for quality (such as hours of "seat time" or course credits in specific content), toward output- or results-based criteria, such as knowledge or skills demonstrated by graduating students. The accreditation system led by the National Council for the Accreditation of Teacher Education (NCATE) has been influential in shaping this trend (http://www.ncate.org).

Standards. Standards provide one approach to defining and assessing quality in early childhood teacher preparation. The National Association for the Education of Young Children (NAEYC) standards for early childhood professional preparation (Hyson, 2003; Hyson & Biggar, 2005; NAEYC, 2001) are the only national standards for programs that prepare early childhood educators. (The standards are available online at http://naeyc.org.) In effect, these standards define high-quality professional preparation in terms of sets of competencies that well-prepared graduates should possess. As defined in the five NAEYC standards and detailed in their key elements, high-quality programs produce students who have knowledge, skills, and professional dispositions within each of five areas: Standard 1—knowing how young children develop and learn (e.g., being able to create environments in which all children thrive); Standard 2—building family and community relationships (e.g., developing respectful, reciprocal relationships with families); Standard 3—using assessment responsibly (e.g., knowing about observation and documentation); Standard 4—teaching to promote children's learning (e.g., making evidence-based decisions about curriculum, using a range of appropriate, effective teaching practices, having essential content knowledge in areas such as literacy and math); and Standard 5—becoming a professional in the early childhood field (e.g., being able to advocate for children, using ethical guidelines). (For more detail on the standards and their key elements, see http://www.naeyc.org/faculty/standards.asp.)
    Editor's note: This url has changed:
http://208.118.177.216/faculty/pdf/2001.pdf

These five standards and their key elements were developed in 2001, building on but substantially revising earlier versions. Consistent with discussions of "evidence-based practice" (Buysse & Wesley, 2006), the 2001 revision incorporated recent evidence about the characteristics of effective early childhood educators, drawn from research and from professional expertise and values.[1]

Standards-Based Recognition and Accreditation. Besides proposing these standards as a vision for high-quality professional preparation in all settings (Hyson, 2003; NAEYC, 2001), NAEYC uses the standards in reviewing higher education programs for national recognition and accreditation.[2] In the case of baccalaureate and graduate degree programs, this is done under the auspices of the National Council for the Accreditation of Teacher Education (NCATE).[3] NAEYC has also recently initiated a system to accredit associate degree programs using the same standards, but with reference to the specific contexts and expectations of community colleges and other associate degree institutions (http://www.naeyc.org/faculty/asdeg.asp).
    Editor's note: This url has changed:
http://www.naeyc.org/ecada

In both the associate and baccalaureate/graduate systems, accreditation decisions rely on evaluations by trained peer reviewers. Reviewers focus primarily on programs' evidence of their students' competence, including students' positive effects on young children's learning. Peer reviewers—faculty and others with significant higher education experience—make recommendations regarding accreditation based primarily on student performance on multiple assessments selected by the institution, such as student teaching evaluations, action research papers, and child case studies. Program faculty compiling the report must show reviewers that the selected assessments, the scoring guides (e.g., rubrics) used to evaluate student performance, and the data emerging from the scoring guides are aligned with the NAEYC standards. Faculty also must show that their students are showing acceptable (as defined by the program) performance in each standards area and therefore have the knowledge, skills, and dispositions that NAEYC expects of beginning teachers. If reviewers conclude that students generally emerge from the program with acceptable performance across the five standard areas, they recommend national recognition/accreditation.

Out of about 450 early childhood baccalaureate and graduate degree programs, fewer than half (about 200 programs) in 2007 had been accredited by NAEYC as part of NCATE's accreditation process.[4] While there are many possible reasons for this low number (e.g., faculty may have little release time or other support to prepare the program report, or a program does not apply because the institution does not participate in NCATE accreditation), it is instructive to take a closer look at peer reviewers' comments about unsuccessful applications.

A review of the NCATE/NAEYC archives from 2004-2007 (Hyson, 2007) showed that about 25% of programs (20 programs) were unsuccessful in becoming accredited upon their initial review. The review teams' reports showed substantive weaknesses that were typical of many of these non-accredited programs. For example, reviewers often noted that (1) assignments and assessments did not align with and support the key teacher competencies represented in NAEYC standards; (2) programs assessed generic knowledge of teaching, rather than assessing a specific early childhood education knowledge base; (3) programs assessed knowledge but not skill; they did not assess, for example, whether students could actually implement good curriculum and teaching practices with children; (4) the student assignments and assessments lacked sufficient cognitive challenge; (5) assessments of students' competence did not yield useful information about which students had achieved mastery and which students had not; (6) students' field experiences were not adequate; there was a lack of quality in the field placements and supervision, few or no opportunities to work with children below kindergarten age, or few or no opportunities to work with families; and (7) faculty lacked specific early childhood expertise. Taken together, these observations do not paint a rosy picture of program quality.

Of course, there are many notably strong programs that have been accredited and have been praised by reviewers for their clear alignment with national standards, their use of multiple high-quality assessments of students' performance, and their use of data to help improve their programs (Hyson, 2007). There are also strong programs that are not accredited because, for example, they have not been through an accreditation process or their strengths were not fully revealed by that process.

Quality, and Quality Improvement, in ECE Teacher Education Programs

Whatever the current status of early childhood teacher education programs, the potential for improvement is always present, with the goal of building the capacity of all programs to produce effective teachers of young children. In this study, our primary focus was on the "insider" perspectives of those faculty and administrators who are responsible for maintaining and improving program quality. To begin to assess these perspectives, in the spring of 2007 we conducted a survey of ECE program administrators and faculty in U.S. colleges and universities. Because the study included programs at all degree levels and included both accredited and non-accredited programs, we aimed to examine both common patterns and differences between degree levels and accreditation status. The results of this exploratory, descriptive study may help the early childhood field consider more effective ways to support programs' quality improvement efforts. The results may also point the way to what further research may be needed.

Method

To reach a representative sample of program chairs, coordinators, and other senior faculty from higher education ECE programs across the United States (collectively called "program leaders" in this paper), we used contact information from a national directory of U.S. early childhood professional preparation programs. That directory had been created from responses to a 2004 telephone survey conducted by the Frank Porter Graham (FPG) Institute at the University of North Carolina/Chapel Hill (Maxwell, Lim, & Early, 2006).[5]

From this list of 1,126 ECE program leaders, we randomly invited approximately half (567 program leaders) to participate in our survey. Because our sample was randomly drawn from this nationally representative database, it included a diverse group of institutions varying in size, location, and program characteristics. The survey was conducted online using Survey Monkey technology (see http://www.surveymonkey.com). Some email addresses did not accept our message, and some faculty receiving the message selected an "opt-out" link requesting no further contact. We had successful contact with 545 program leaders. Of these, 46% completed the survey ($n = 250$ individuals, representing 250 institutions of higher education). An initial examination of the data revealed 2 duplicates and 5 who initiated the survey but did not answer any of the questions. We also removed the data of 7 respondents who said "no" to all four of the types of programs indicated, as well as the data of 5 respondents who indicated that their institution offered the CDA credential only, since our focus was only on degree-granting programs. The final sample included 231 respondents or 42% of the initial set of program leaders. Because certain questions were relevant only to particular types of programs, not all respondents were included in all analyses.

Paralleling the characteristics of the larger sample from which ours was drawn, 53% of respondents' institutions offered only an associate degree, and 14% of respondents' institutions offered only a baccalaureate degree, with 7% offering both. About 20% also offered a graduate-level degree, in addition to a baccalaureate. The remaining 6% comprised programs offering either a combination of associate, baccalaureate, and graduate degrees or graduate degrees only. For the purpose of some comparisons, we created two groups: (1) those whose programs offered the associate degree only (123 programs) and (2) those whose programs offered either baccalaureate or a combination of baccalaureate and graduate degrees (78 programs). The data for those respondents whose programs offered either a combination of associate and baccalaureate degrees or

only graduate degrees were eliminated from these comparisons.

Of the approximately 70% of survey participants who expressed willingness to be interviewed, 20% were randomly chosen to be contacted for a telephone interview in fall 2007. The final group of 20 interviewees was chosen to represent a similar distribution of degree programs as in the survey: 11 (55%) represented associate degree programs, 7 represented baccalaureate and/or graduate degree programs (35%), and 2 (10%) represented programs offering both associate and baccalaureate degrees.

The survey instrument, developed by the research team, was piloted with nine faculty from associate and baccalaureate programs, whose feedback was incorporated into the final version. The survey included 20 questions, plus probes, organized around five general issues:

1. Sources of guidance for program decisions and improvement
2. Programs' priorities for enhancing students' competence
3. Programs' specific quality improvement activities
4. Programs' current climate and support
5. Programs' self-described needs

Most of the response options on the survey were closed-ended (e.g., multiple choice or yes/no), and some questions were open ended or free response. Many of the closed-ended questions had options for comments or examples; these opportunities were used liberally by many participants. (See Appendix A for the survey questions.)

Rather than duplicating the five areas of the survey, the open-ended questions used in the follow-up telephone interviews were designed to provide insight about some patterns of survey responses that had been difficult to interpret (a second purpose, beyond the scope of this paper, was to solicit opinions on some broader questions in early childhood teacher education). (See Appendix B for interview questions.) Telephone interviews ranged from 30 minutes to more than an hour, averaging about 45 minutes each. The two interviewers (members of the research team) took detailed notes during the interviews and analyzed responses for patterns and themes that might elucidate survey responses. These themes are reported below, and comments from the interviews are used to illustrate the survey findings.

Results

As this study was exploratory, results from the survey are primarily reported in terms of frequencies and percentages. For some comparisons—for example, between associate degree and baccalaureate programs—t-tests and chi-square tests were used along with correlational analyses where appropriate, and statistically significant results ($p < .05$ or lower) are noted in text and tables. Information from participants' open-ended survey responses and from the telephone interviews is included whenever it illuminates the findings. The results are organized around five questions, which reflect the organization and major emphases of the survey and follow-up interviews.

1. What Sources of Guidance Are Being Used for Program Design and Improvement?

In order to improve program quality—specifically, to prepare teachers to influence children's positive development and learning—one would expect to see programs using credible, evidence-based sources (Buysse & Wesley, 2006) to guide their design of future teachers' learning opportunities and assessments of their competence. Respondents were asked about the nature of their reliance on two sources of guidance: (1) national and state standards and (2) research and theory.

National and State Standards. Programs were given a list of potentially relevant standards and asked which of these they knew about and relied on "for guidance in maintaining or improving program quality." Here and elsewhere, we purposefully left the definition of program quality open to respondents' interpretation. Respondents were able to choose as many types of standards as they wished. Programs reported relying most heavily on NAEYC standards. These include NAEYC's standards for professional preparation (NAEYC, 2001), relied on "very much" by about 77% of both associate and baccalaureate programs; and NAEYC's standards for programs for young children (NAEYC, 2005), relied on "very much" by 76% of associate degree programs and 72% of baccalaureate programs. State standards, both standards for teacher education and early learning guidelines, were also a major source of guidance, with an average of 69% relying "very much" on these, although t-tests on the mean responses for each group when scores were converted to a 5-point Likert-type scale revealed that the baccalaureate programs relied on the state teacher preparation standards significantly more often than did associate degree programs, $t(199) = 3.35$, $p < .01$, with 83% of baccalaureate programs relying on them versus 59% of the associate degree programs. Baccalaureate programs also relied significantly more than associate degree programs on standards from organizations such as the National Council for Teachers of Mathematics (NCTM) and the Interstate New Teacher Assessment and Support Consortium (INTASC), $t(199) = 6.21$, $p < .001$. In terms of percentages, 67% of baccalaureate programs reported relying "very much" and 24% relying "somewhat" on these standards, while 24% of associate degree programs reported relying on these standards "very much" and another 44% relying on them "somewhat."

Research and Theory. To learn more about the kinds of research and theoretical perspectives upon which programs rely, we used an open-ended format, asking respondents to name up to three examples of research or researchers and up to three examples of theories or theorists upon which they rely. Forty percent of respondents did not answer this question.

Responses to the question "What research, researchers, or research reports do you rely on frequently?" raise issues about how faculty are defining and using research. Of those who answered, some said that they relied on too many different research sources to list any. Many cited sources that are not actually sources of primary research—most often, "NAEYC" and "NAEYC Publications." Another frequent non-research citation was "Reggio Emilia research" (there is no systematic body of research on the effectiveness of this approach to early childhood teaching). A number of respondents gave as examples of researchers individuals who may be better described as conceptualizers, for example, Sue Bredekamp and Louise Derman-Sparks.

However, other respondents made reference to recent research syntheses and reports—most often, the National Research Council reports, especially *Neurons to Neighborhoods* (Shonkoff & Phillips, 2000) and *Eager to Learn* (Bowman, Donovan, & Burns, 2001). Studies such as the Perry Preschool Project (Schweinhart, Montie, Xiang, Barnett, Belfield, & Nores, 2005) and the Cost, Quality, and Outcomes Study (Peisner-Feinberg & Burchinal, 1997) were also mentioned, as well as Hart and Risley's (1995) research on early vocabulary development. A few scholarly journals were mentioned, including *Child Development* and *Early Childhood Research Quarterly*. Some respondents named individual researchers (e.g., David Dickinson, Deborah Stipek, Samuel Meisels, Robert Sternberg, Sandra Scarr). As a general category, "brain research" was frequently mentioned, but usually without specific sources.

When asked a similar open-ended question about the specific theorists or theories on which the respondents base their approach to early childhood education, most respondents cited Piaget, with Vygotsky a close second. Respondents also cited Erikson, Gesell, Montessori, Bronfenbrenner, and Gardner. Theories mentioned by name included constructivism and ecological theory. A few respondents made reference to social constructivism and cultural perspectives on development and learning. In citing the "theories" they relied on, some respondents listed terms such as "Reggio Emilia" and "Developmentally Appropriate Practice," which are approaches, not theories.

2. What Are Programs' Priorities for Enhancing Their Students' Competence?

As the survey stated, our goal in this part of the study was to learn more about programs' "current priorities to enhance students' effectiveness as future early childhood practitioners," since these priorities may form a critical link between teacher education and developmental and educational benefits for children. Here the survey offered a number of possibilities from which to choose, with the option to check as many as applied. We acknowledged to respondents that all the items might be important, but asked them to focus on priorities for the current academic year only.

Table 1 summarizes these responses. Respondents most frequently selected the following priorities:

- "Implementing quality curriculum effectively" (selected by 71% of respondents)
- "Better skills in using appropriate assessments of young children" (66%)

- "Working more effectively with families" (65%)
- "Better skills in addressing children's challenging behaviors" (64%)
- "More comfort and skill in working with culturally and linguistically diverse children" (63%)

Table 1
Percentage of "Yes" Responses to Possible Current Priorities to Enhance Students' Effectiveness

Priorities Listed (check all that apply)	Percent Selecting as Priority		
	All	Associate	Baccalaureate & Graduate
A. Working more effectively with infants & toddlers	30.6	45.3***	12.5
B. Working more effectively with primary-grade children	14.4	10.3	20.8*
C. Produce positive child outcomes in specific areas	45.4	46.2	44.4
D. Improved content knowledge in certain area	37.0	39.3	31.9
E. Comfort & skill working with diverse children	62.5	62.4	63.9
F. Comfort & skill working with children with disabilities	55.1	54.7	52.8
G. More frequent developmentally supportive interactions	46.8	53.8	40.3
H. Working more effectively with families	64.8	65.0	66.7
I. Better skills to address children's challenging behaviors	63.9	70.9*	56.9
J. Better skills in using appropriate assessments	66.2	70.1	56.9
K. Promoting children's health, safety, & nutrition	28.7	35.0	23.6
L. Developing more professionalism & ethical standards	63.4	72.6**	52.8
M. Implementing quality curriculum effectively	71.3	78.6**	59.7
N. Working more effectively with other professionals	28.2	27.4	31.9
O. Knowing about & using research in practice	29.2	27.4	31.9
P. Developing students' own research skills	22.2	19.7	23.6
Q. Being more effective leaders & advocates	42.1	47.9	41.7

Chi-square comparisons, associate vs. baccalaureate/graduate:
*$p < .05$
**$p < .01$
***$p < .001$

A much less frequently selected priority (47% of all programs: 54% of associate programs versus 40% of baccalaureate programs—not a statistically significant difference) was for students to have "more frequent and developmentally supportive interactions with individual children." "Knowing about and using others' research in their practice with children" was cited as a priority by only 29% of respondents.

As seen in Table 1, comparisons between associate degree programs and baccalaureate/graduate degree programs revealed both consistencies and some differences in priorities. Not surprisingly, considering teacher-licensure patterns, chi-square tests revealed that baccalaureate program faculty were significantly more likely than associate degree faculty to identify "Working more effectively with primary grade children" as a priority (20.8% versus 10.3%, $p < .05$). Many other priorities were chosen significantly more often by associate degree than by baccalaureate faculty; rather than reflecting a difference in priorities, this reflected a general tendency for associate degree program respondents to identify a greater number of priorities than did baccalaureate degree faculty.

3. What Quality Improvement Activities Are Programs Undertaking?

Student Competencies. To learn about what programs are doing to achieve their priorities, we provided a list of activities that a program might engage in to enhance student competencies, with instructions to "check all that apply." As seen in Table 2, once more there was great consistency across associate and baccalaureate programs in what they identified as their major quality-improvement activities. The activity that respondents most frequently selected as a top priority (68%) was "Developing new ways to assess student competencies." This selection was closely followed by "Improving the quality of students' field experiences" (61%). In both cases, we found that these two activities were somewhat higher priorities for associate degree faculty as compared to baccalaureate/graduate degree faculty. Next most frequently selected activities were "Redesigning courses or developing new courses" and "Analyzing our program for alignment with national or state standards," with approximately 56% of respondents identifying each of these as a current high priority.

Table 2
Percentage of "Yes" Responses to Possible Activities That Are the Focus of Quality Improvement Efforts

Response Choices (check all that apply)	All Respondents	Associate	Baccalaureate & Graduate
A. Redesigning courses, developing new courses	54.9	59.8	45.1
B. Improving quality of students' field experiences	61.4	65.8	54.9
C. Developing new ways to assess student competencies	68.4	75.2	62.0
D. Analyzing alignment with national or state standards	55.8	61.5	47.9
E. Engaging in self-study to prepare for accreditation	36.7	30.8	45.1
F. Engaging in self-study (not for accreditation)	28.4	28.2	28.2
G. Submitting application or report for accreditation	25.1	21.4	31.0
H. Engaging in overall program revision	32.6 3	2.5	31.0

Chi-square comparisons: associate vs. baccalaureate/graduate
*$p < .05$

Building Faculty Capacity. Believing that faculty are the key to high-quality programs, we asked a series of questions about whether programs were placing a priority on building faculty capacity. Contrary to expectations, about 60% reported that their programs were "focusing little or no effort" on faculty capacity building this year. In open-ended comments from the survey and in more detail during telephone interviews, respondents typically reported that this inactivity was because of budget crises and hiring freezes or collegewide lack of commitment to building the ECE program, especially related to hiring full-time faculty. In other cases, respondents reported declining enrollment as a reason, with comments from a few associate degree faculty that enrollment was dropping as Head Start teachers completed their degrees in response to the federal mandate. Some interviewees also noted the difficulty of finding good candidates for faculty positions. On a more positive note, some respondents reported that they had just recently hired new faculty and that they were now able to turn to other priorities.

Of the 40% who did cite "building faculty capacity" as one of their current priorities, they highlighted as a major priority the need to hire faculty with current knowledge and experience in early childhood education. Hiring more full-time faculty in general was also a priority. Respondents also described efforts to improve professional development for faculty, including access to current research and other opportunities, such as workshops and retreats.

Accreditation. We considered participation in an accreditation process, whether state mandated or voluntary, a potential quality-improvement activity because the process may

prompt positive changes in the program. Responses from associate degree programs were dropped from the following analyses because, as noted earlier, accreditation at this level has only recently become available and the numbers were too small to be meaningful or representative.

About 50% of respondents from baccalaureate and/or graduate degree programs are in programs currently accredited by NCATE/NAEYC. Comparisons of responses between representatives of accredited and non-accredited programs revealed no significant differences between accredited and non-accredited programs in terms of priorities, program climate, and other variables. More revealing were respondents' reactions when asked their feelings about the accreditation process as a quality-improvement activity. Whatever their own accreditation status, most respondents had positive impressions. Using a check-all-that-apply list, those from accredited programs reported that the process had given them a "clearer sense of our program's mission, strengths, and needs" (60%). Other frequently cited benefits included "improved assessment of our students' competence" (51%), "improved learning opportunities for our students" (43%), "better ability to use data for program improvement" (39%), and "enhanced reputation of our program" (40%).

We were also able to examine these responses in light of whether the respondents' programs were mandated to seek accreditation. NCATE-affiliated institutions require all teacher-licensure programs, including ECE, to seek national recognition. Additionally, in some states, all early childhood programs are required to go through NCATE/NAEYC or other accreditation; in other cases, it is voluntary. The majority of faculty from programs that were required to go through the accreditation process reported being "very pleased" or "somewhat pleased" that accreditation was required and viewed it as beneficial. Of faculty from programs that were not required to go through accreditation, more than 50% said that they thought accreditation is a worthwhile process and they might like to participate if possible.

4. What Are Some Patterns in Program Climate and Support?

An early childhood program or department is an organization; like any other organization, its quality may flourish or decline as a function of its organizational climate and support. We examined the overall climate of programs in several ways. First, we looked for evidence of consensus and teamwork. To do this, we asked respondents, as they answered various survey questions about sources of guidance, priorities, and so on, whether other faculty in the program would be likely to answer in the same way. On most issues, respondents believed that most other faculty would either be "very likely" or "somewhat likely" to respond in a similar way. When asked how faculty function when working on program improvement, the majority said faculty "frequently" work together as a team.

We also asked respondents which of the following seven possible "modes" (with the accompanying description) best represented the dynamics of their own program's functioning:

- Change mode: "We are responding to new external requirements."
- Implementation or maintenance mode: "We are putting into practice what we have developed."
- Survival mode: "Keeping our heads above water just teaching courses and advising students"
- Fatigue mode: "Most faculty are too tired and indifferent to think about innovation or improvements."
- Conflict mode: "Energy is mostly going into interpersonal conflicts and turf issues."
- Building mode: "We are able to invest time and energy in quality improvement."
- Celebration mode: "We feel our quality improvement efforts are getting results and we are energized to do more."

Responses varied greatly, but the three most frequent responses, receiving almost equal nomination at approximately 20% each, were implementation or maintenance mode, building mode, and change mode. Nineteen percent of program leaders saw their programs as functioning in a negative, predominantly in "survival mode"—"Keeping our heads above water just teaching courses and advising students" (this was a more frequent response for associate degree programs; however, the difference did not reach significance). Here is a representative comment:

> I am in survival mode since the growth of the program is decreasing. The program is very difficult for the type of student my college recruits—we are an opportunity school. I teach nine different courses over the year and supervise student teachers. Of course, I also advise all the early childhood majors. Even with all that, I am trying to align outcomes with NAEYC associate degree standards and am starting to require my students to articulate how their projects and assignments enable them to build skills, knowledge, and competence in the identified standards.

But even respondents who might appear to have more reason to be upbeat sometimes painted a mixed picture of the dynamics in their program:

> While we are celebrating the results of our self-study/accreditation process, we are also feeling over-extended. Recognition of achieved quality is wonderful, but at some point additional resources are necessary to continue improving if we are to avoid total burn-out.

Related to these self-descriptions were respondents' characterizations of the kind of philosophical and financial resources/support that they received from upper administration. Good things tended to go together: Respondents' ratings of their administration's philosophical support correlated significantly, $r(207) = .49$, $p < .001$, with ratings of financial support. Most respondents perceived more philosophical support than financial support from their upper administration, with 48% reporting "a lot" of philosophical support versus 17% reporting "a lot" of financial support. Some faculty reported receiving neither kind of support: 17% said their upper administration gave little or no philosophical or conceptual support to the early childhood program.

There were no significant differences between associate and baccalaureate/graduate program faculty with respect to perceptions of support. Regardless of the degree type, however, as seen in Table 3, different perceptions of the level of support were associated with differences in reported program climate.

Table 3
Percentage of Respondents Reporting Differing Levels of Philosophical and Financial
Support, by Program's Reported Mode of Functioning

Program's Mode	Reported Philosophical Support		Reported Financial Support	
	A Lot	Some or None	A Lot	Some or None
Change mode	22.0	17.8	19.4	20.3
Implementation or maintenance mode	21.0	22.4	11.1	23.3
Survival mode	7.0	17.8*	2.8	14.5
Fatigue mode	2.0	4.7	0.0	4.1
Conflict mode	2.0	4.7	5.6	2.9
Building mode	21.0	19.6	30.6	18.0
Celebration mode	18.0*	7.5	22.2	10.5

Chi-square analyses, *$p < .05$

For example, chi-square analyses revealed that those programs reporting low levels of philosophical support were more likely to report being in survival mode, while higher levels of philosophical support were associated with being in one of two more positive climates—celebration or implementation modes. Similar results were found for the association of financial support with program climate: there was a trend for survival mode responses to be associated with low financial support and celebration mode responses to be associated with "a lot" of financial support.

5. What Do Programs Say They Need to Assist Their Quality Improvement Efforts?

Finally, we asked respondents what kinds of information, support, or resources (financial or other) would contribute to the continuing improvement of their early childhood

programs. Sixty-eight percent of participants chose to answer this open-ended question, with many providing detailed responses. Several categories of needs expressed by respondents emerged. We illustrate each with representative quotes from interviews and open-ended survey responses.

More Faculty. Not surprisingly, the need for more faculty with early childhood expertise was a dominant theme. Here are some sample comments:

- "Faculty lines—we have just lost one."
- "A full-time faculty with a full assignment. My position is only half time but with full-time responsibilities. It is very difficult to improve a program with only 50% of faculty."
- "Finding the funds to hire three new faculty to replace the three that are leaving at the end of this semester."
- "Additional faculty with terminal degrees in early childhood education."

More Time. Respondents frequently noted the need for more time to engage in individual and program-level work. Here are some sample comments:

- "More time to think."
- "I regularly teach 6-7 full courses per term to make my faculty load...teaching fewer courses would contribute to having the time to put into continuing improvement."
- "More workload support for research."
- "Time to set up mandatory meetings to work on updating curriculum, etc."
- "More time for quality improvement planning for all aspects of the program, including our Lab School."

Institutional Recognition of the Value of ECE and ECE Teacher Education. Many respondents described their feeling that early childhood education is not well understood or well respected. Here are some sample comments:

- [We need] "tools to inform administration and public of [the] importance of high-quality early childhood education..."
- "Acknowledgment that we are a viable and important program"
- [We need] "demonstrative APPRECIATION of current efforts!!"

Financial Support. Many respondents said that there is a need for more money to support their program and its quality-improvement efforts. Here are some sample comments:

- "There is some recognition that ECE is a growing field. But there is no real incentive to direct resources towards it."
- "Financial support to pay for national accreditation"
- "More financial support for our child development laboratory school would greatly contribute to improving our department."

Support for Professional Growth. Linked to the need for more money, respondents described the need for time and support for faculty professional development. Here are some sample comments:

- "Both full-time faculty have master's degrees. We would like to pursue doctorates or even further coursework, but time and money and proximity of programs offering these opportunities preclude [further study]. Considering these thoughts, financial [support] and more user-friendly access to further education would help us."
- "Additional professional development opportunities for faculty"
- "Attending more conferences, courses, workshops"

Addressing the Larger Context. Respondents indicated a wish for deeper connections between the program and contemporary society or the world at large. Here are some sample comments:

- "More understanding of the outside pressures would help us improve."
- "Need to learn more about advocacy at the state level"
- [Need] "a state that understands and supports the relationship of teacher education to high-quality programs [for children]"
- "If practitioners earned more after graduating from college, we would more than likely see an increase in our numbers."
- "Having the universities accept the course that we teach for transfer"

Discussion

As emphasized earlier, this study was intended to provide some descriptive information regarding program administrators' and faculty perceptions of their own quality-improvement efforts, challenges, and sources of support. Before outlining some observations and recommendations arising from the results, we should highlight cautions about, and limitations of, the study.

Cautions and Limitations

Although we were pleased with the initial 46% response rate to the online survey, one should remember that about half of those invited chose not to participate. It was not possible to compare responders with non-responders; it could be that the latter group included proportionately more of those from lower-quality or less-committed programs.

Additionally, the survey has all the limitations of self-report data. Social desirability may have influenced responses to some questions. Similarly, although this study was not officially conducted by NAEYC, two of the authors are known for their current or former association with NAEYC's work on teacher education standards and program reviews. Thus, some participants may have tried to please the research team by citing NAEYC publications, authors, and standards as their preferred sources of information.

It is also difficult to draw conclusions from a respondent's decision not to identify a given issue (e.g., working with primary grade children, health and safety knowledge) as a current priority. Not selecting something as a priority could indicate a lack of felt importance for that issue, or it could indicate that performance in the area is perceived as satisfactory in the program and it therefore fails to draw special attention at the moment.

Observations from the Results

Great Variability in Early Childhood Teacher Preparation. Results of the survey and interviews underscore the difficulty of drawing broad-brush conclusions about early childhood teacher education programs. Respondents, and their programs, varied considerably on many dimensions—their programs' size and focus, their understanding and use of theory and research, their priorities for enhancing student competencies, their planned activities, the critical issues with which they were dealing, and the inferred quality of their programs. This variability suggests the need for further, in-depth research with subgroups, and it also cautions policy makers and others to avoid facile generalizations about such a diverse field.

Comparing Associate and Baccalaureate Programs. More similarities than differences between associate and baccalaureate degree programs emerged from this study. Certainly there were differences: for example, the greater use of state teacher standards by baccalaureate programs, most likely because these programs are more accountable for complying with state standards. Additionally, associate degree programs may be oriented more toward standards for children's programs, such as child care, Head Start, or NAEYC program accreditation standards, rather than toward state teacher certification standards.

Yet our results emphasize many areas of consistency. For example, statistical comparisons showed very few differences between the responses from associate degree and baccalaureate/graduate programs in terms of priorities, program activities, the dynamics of program functioning, and many of the programs' challenges. These consistencies go against some conventional wisdom that associate degree and baccalaureate programs are completely different and even at odds. Instead, the results tend to confirm the strong similarities in priorities, needs, and challenges across associate and baccalaureate programs and faculty.

Program Priorities. The results suggest that, overall, programs seem to be prioritizing and implementing quality-improvement strategies around many of the competencies that research indicates should be prioritized. For example, respondents frequently cited as a priority helping students implement high-quality curriculum effectively. Although our survey and interviews did not provide respondents with a definition of "quality" in curriculum, the need for high-quality, well-implemented curriculum has received considerable attention in the field, both in national research syntheses and recommendations (e.g., Bowman, Donovan, & Burns, 2001; Klein & Knitzer, 2006; NAEYC & NAECS/SDE, 2003) and in recent federally funded research on curriculum and school readiness research (e.g., Bierman et al., 2008; Clements & Sarama, 2008; Greenes, Ginsburg, & Balfanz, 2004; Justice, Mashburn, Pence, & Wiggins, 2008; Preschool Curriculum Evaluation Research Consortium, 2008). Other emphases, such as the focus on addressing linguistic and cultural diversity, and on appropriate assessment of young children, are also in line with what evidence would suggest should be emphasized. However, it may be of concern that few programs are emphasizing students' skills in "having more frequent and developmentally supportive interactions with individual children," a foundation for promoting children's development and learning and a competency that has a strong basis in recent research (e.g., LoCasale-Crouch et al., 2007).

Faculty Capacity. The results also raise questions about faculty capacity, including knowledge of and facility with theory and research. It was noted that the question about theories elicited some responses that would not be considered theories. While it is possible that some respondents were attempting to use the "theories" question to describe some foundations of their program that are more conceptual frameworks than theories, this interpretation is unlikely since the question allowed for comments, and no comments were made to that effect. Furthermore, the general pattern of responses to the "What research or researchers do you rely on?" question showed a similar pattern, with many respondents either choosing not to answer the question or citing schools of thought or resources that are not research and individuals who are not researchers. Without a firm grasp of these issues, it is difficult to see how faculty can help their students find, critique, and use research as part of their implementation of evidence-based practices. In addition, we saw that for more than three-fourths of the respondents, students' knowledge about research is not a priority. For several reasons, then, programs, students, and young children might benefit from more faculty familiarity with and access to current research.

Other Challenges. Besides the challenge of faculty capacity, other challenges make it difficult for programs to implement their priorities. Both internal and external constraints pose continuing challenges, ranging from lack of philosophical support from upper administration, to over-reliance on adjuncts, to the difficulty of providing high-quality preparation for teachers entering a low-paying labor market. It also appeared that despite the instructions to select only a few priorities, many respondents—especially those in associate degree programs—selected almost every option as a priority this year. Was this pattern a sign of commendable ambition, of responses to multiple pressures, or of complete over-commitment? This study cannot answer that question, but it may warrant further investigation.

Accreditation. Again we were surprised that there were almost no differences between the responses of those programs that were nationally recognized/accredited and those that were not. However, in considering reasons for this lack of difference, one must consider the diverse reasons for programs' being in the not-accredited category. As noted in an earlier section of this paper, some programs were not accredited because of reviewers' judgments that the program's report failed to show that students had met all five of the NAEYC standards (i.e., programs were actually of low quality). Other programs, of unknown quality, were housed in one of the many institutions that do not participate in NCATE accreditation (43% of respondents). Still other ECE programs did not participate in the accreditation process because the program did not lead to licensure/certification. And still other programs may have been of adequate or high quality but, because of internal difficulties like staffing shortages or a lack of support for report preparation, produced a weak report that inadequately reflected the program's strengths. Therefore, both within this paper and in the field at large, a program's not-accredited status is not necessarily synonymous with low quality. This will be a continuing challenge as researchers try to unpack the program-quality variable. The field would benefit from a consensus on the definition of higher education program quality that is relatively easy to operationalize and measure and is distinct from accreditation.

Recommendations

The results of this study suggest some possible actions to enhance the quality of the 1,200-plus college and university early childhood teacher education programs in the United States. Although ongoing inservice training is essential to a high-quality workforce, early childhood teacher education programs should be a critical part of any professional development system. With greater support, higher education programs can be more effective contributors to students' professional development. The following, illustrated with some brief interview excerpts, represent some areas in which better support from institutions, states, researchers, and professional organizations could lead to quality improvements for programs and students.

1. Invest in having sufficient numbers of full-time early childhood-trained faculty.

> *"I have 145 students this year and only me...."*

Faculty concern about insufficient numbers of full-time faculty with early childhood backgrounds was a recurring thread throughout many sections of the survey and interview results. Both baccalaureate/graduate and associate degree programs were affected, although some issues were more salient for associate degree faculty. This difference may partially be explained by national data showing that associate degree early childhood programs have half the number of full-time faculty as programs in 4-year institutions (Early & Winton, 2001). As one associate degree respondent said, "I AM the team, along with some adjuncts. Any quality improvement, I do myself."

Besides supporting teamwork for quality improvement, adequate numbers and quality of faculty would allow students to experience multiple perspectives, to be exposed to a breadth of knowledge, and to receive the kind of teaching and mentoring needed to be effective when working with young children and families. Apparent gaps in some respondents' research knowledge base may be explained in part by overwhelming workloads and little time or opportunity to keep up, which leads to the next recommendation.

2. Expand faculty knowledge about research and evidence-based practices.

> *"I can't say I'm totally on top of the game."*

There is a pressing need for faculty development around evidence-based practice in early childhood education (Buysse & Wesley, 2006). Faculty need help finding and evaluating relevant research, learning about new theoretical perspectives, and becoming more informed consumers of research. The new "Faculty Teaching Modules" from *Research Connections* (http://www.researchconnections.org/teaching_modules) are a potential resource, but much more support is needed. Interviews as well as comments from the survey indicate that many faculty welcome opportunities for professional development but have little access at present.

3. Promote and support accreditation for higher education programs.

> *"Whoever's building the process, make sure it's valid and reliable, but keep in mind you're asking already overburdened people to do it."*

The majority of respondents expressed appreciation for and a belief in the benefits of the accreditation process, whether they had gone through it or had only heard about it. Those who had gone through accreditation reported benefits of the process, such as a clearer sense of the program's missions, strengths, and needs, and better assessments of students' competencies. Based on the perceived benefits of the process, accreditation may be a quality-improvement activity that national organizations, states, and institutions

could more actively promote—with the help of additional resources, time, and money for faculty—with positive results. That is, participating in the collaboration and self-study required of the process could lead, for many programs, to a renewed or refined sense of purpose and pride among faculty, as well as sharpened knowledge, skills, and dispositions among students.

4. Strengthen connections between associate and baccalaureate/graduate programs.

> "[We] need to get our act together for seamless transitions...need to see where we feel territorial."

The results of this study strongly suggest that associate and baccalaureate/graduate programs share many priorities, activities, and issues. Creating opportunities for faculty across programs to communicate, to learn from each other, to share resources, and to plan together will surely benefit faculty from both types of programs. Promising collaborative steps are being taken, but much more is needed, since such joint activities have the potential to lead to quality improvement at all degree levels, and they may build better bridges for the many students wishing to transfer from associate to baccalaureate programs.

5. Take advantage of NAEYC's status and credibility among faculty.

> "Again, you have to weed out what's out there, but you have American Pediatric Association, NAEYC...."

NAEYC was viewed by the overwhelming majority of participants as a credible source of guidance on almost every facet of early childhood education and teacher preparation—including facets that are not actually within its scope. NAEYC's reputation among early childhood teacher educators allows it to be a trusted source of information and resources, including its links to other professional organizations, researchers, and partners that will further assist programs in their quality-improvement activities. Strengthening these links may multiply NAEYC's potential impact on teacher education. Additionally, NAEYC's new Office of Applied Research has the potential to extend the organization's reach in that area of need, providing resources, training, and updated information about current research findings (NAEYC Office of Applied Research, 2008).

6. Plan additional research on quality, and quality improvement, in early childhood teacher education programs.

A well-planned, collaborative research agenda could build on and extend the themes emerging from this descriptive study. For example, research is needed around the benefits (for early childhood education students and, ultimately, for the children they teach) of (1) having sufficient numbers of early childhood-trained faculty; (2) providing more and better professional development opportunities for faculty; (3) using accreditation as a quality-improvement activity; (4) improving faculty understanding of, and access to, research; (5) creating a fieldwide consensus about what a high-quality early childhood teacher education program looks like; and (6) having a degree from a high-quality program as opposed to a low-quality program.

Conclusion

No single influence can be held responsible for young children's development and learning, including what degree is held by a teacher. Nonetheless, a teacher's education, if it is rich and deep and positive, provides a critical foundation that may constructively influence children's experiences.

Despite recent reports that failed to find an association between teachers having a degree and better outcomes for children, no one (including those researchers) would claim that we should abandon the idea that higher education can and does contribute significantly to teachers' capacity to influence child development and learning in critical, positive, lasting ways. We need to keep unpacking the "letters after the name" variable, to look more closely at the content and quality of ECE degree programs. But as we unpack the quality component, we must also avoid blaming programs that are trying to function in a context that has seriously constrained their ability to hire good faculty, mount effective faculty professional development, and keep current in developmental and educational research. Rather, we must use the results of this study and other studies to identify the kinds of support that programs need to produce future generations of dedicated, effective teachers.

Notes

1. The NAEYC standards are currently being updated; for more information, see http://www.naeyc.org/about/positions/draftprepstds0808.asp.
2. The term "national recognition" is used in the NCATE/NAEYC process for review of baccalaureate and graduate programs as part of the NCATE unit accreditation system, and the term "accreditation" for NAEYC's system for associate degree programs. For simplicity, in this paper "accreditation" will be used for both.
3. A number of states also use the NAEYC standards to define high-quality teacher preparation in their state-level program reviews.
4. The following discussion does not include associate degree programs, because the NAEYC accreditation system for those programs was only recently implemented.
5. We express sincere appreciation to our FPG colleagues, who provided us with the directory information in a usable format.

References

Bierman, Karen L.; Domitrovich, Celene E.; Nix, Robert L.; Gest, Scott D.; Welsh, Janet A.; Greenberg, Mark T.; et al. (2008). Promoting academic and social-emotional school readiness: The Head Start REDI program. *Child Development, 79*(6), 1802-1817.

Bowman, Barbara T.; Donovan, M. Suzanne; & Burns, M. Susan (Eds.). (2001). *Eager to learn: Educating our preschoolers.* Washington, DC: National Academy Press.

Burchinal, Margaret R.; Cryer, Debby; Clifford, Richard M.; & Howes, Carollee. (2002). Caregiver training and classroom quality in child care centers. *Applied Developmental Science, 6*(1), 2-11.

Burchinal, Margaret; Hyson, Marilou; & Zaslow, Marty. (2008). Competencies and credentials for early childhood educators: What do we know and what do we need to know? *NHSA Dialog, 11*(1), 1-7.

Buysse, Virginia, & Wesley, Patricia W. (Eds.). (2006). *Evidence-based practice in the early childhood field.* Washington, DC: Zero to Three.

Clements, Douglas H., & Sarama, Julie. (2008). Experimental evaluation of the effects of a research-based preschool mathematics curriculum. *American Educational Research Journal, 45*(2), 443-494.

Darling-Hammond, Linda. (1997, November). *Doing what matters most: Investing in quality teaching.* New York: National Commission on Teaching and America's Future.

Early, Diane M., & Winton, Pamela J. (2001). Preparing the workforce: Early childhood teacher preparation at 2- and 4-year institutions of higher education. *Early Childhood Research Quarterly, 16*(3), 285-306.

Early, Diane M.; Bryant, Donna M.; Pianta, Robert C.; Clifford, Richard M.; Burchinal, Margaret R.; Ritchie, Sharon; et al. (2006). Are teachers' education, major, and credentials related to classroom quality and children's academic gains in pre-kindergarten? *Early Childhood Research Quarterly, 21*(2), 174-195.

Early, Diane M; Maxwell, Kelly L; Burchinal, Margaret; Alva, Soumya; Bender, Randall H.; Bryant, Donna; et al. (2007). Teachers' education, classroom quality, and young children's academic skills: Results from seven studies of preschool programs. *Child Development, 78*(2), 558-580.

Greenes, Carole; Ginsburg, Herbert P.; & Balfanz, Robert. (2004). Big math for little kids. *Early Childhood Research Quarterly, 19*(1), 159-166.

Hart, Betty, & Risley, Todd R. (1995). *Meaningful differences in the everyday experiences of young American children.* Baltimore, MD: Paul H. Brookes.

Hyson, Marilou (Ed.) (2003). *Preparing early childhood professionals: NAEYC's standards for programs.* Washington, DC: National Association for the Education of Young Children.

Hyson, Marilou. (2007). *NAEYC reviewers' perceptions of early childhood program strengths and weaknesses.* Unpublished manuscript.

Hyson, Marilou, & Biggar, Heather. (2005). NAEYC's standards for early childhood professional preparation: Getting from here to there. In Martha Zaslow & Ivelisse Martinez-Beck (Eds.), *Critical issues in early childhood professional development* (pp. 283-308). Baltimore, MD: Paul H. Brookes.

Justice, Laura M.; Mashburn, Andrew; Pence, Khara L.; & Wiggins, Alice. (2008). Experimental evaluation of a preschool language curriculum: Influence on children's expressive language skills. *Journal of Speech, Language, and Hearing Research, 51*(4),983-1001.

Klein, Lisa, & Knitzer, Jane. (2006). *Effective preschool curricula and teaching strategies* (Pathways to Early School Success, Issue Brief No. 2). New York: National Center for Children in Poverty.

LoCasale-Crouch, Jennifer; Konold, Tim; Pianta, Robert; Howes, Carollee; Burchinal, Margaret; Bryant, Donna; et al. (2007). Observed classroom quality profiles in state-funded pre-kindergarten programs and associations with teacher, program, and classroom characteristics. *Early Childhood Research Quarterly, 22*(1), 3-17.

Maxwell, Kelly L.; Lim, Chih-Ing; & Early, Diane M. (2006). *Early childhood teacher preparation programs in the United States: National report.* Chapel Hill: University of North Carolina, FPG Child Development Institute.

NAEYC Office of Applied Research. (2008). Diverse and useful strategies for bridging early childhood research and practice. *Young Children, 63*(6), 10-13.

National Association for the Education of Young Children. (2001). *NAEYC standards for early childhood professional preparation: Initial licensure programs. Retrieved January 5, 2005, from http://www.naeyc.org/faculty/pdf/2001.pdf*
      Editor's Note: this url is no longer active.
      Editor's note: See also:
http://www.naeyc.org/ncate/standards

National Association for the Education of Young Children. (2005). *NAEYC early childhood program standards and accreditation criteria: The mark of quality in early childhood education.* Washington, DC: Author.

National Association for the Education of Young Children (NAEYC) & National Association of Early Childhood Specialists in State Departments of Education (NAECS/SDE). (2003). *Early childhood curriculum, assessment, and program evaluation: Building an effective, accountable system in programs for children birth through age 8.* Retrieved December 19, 2008, from http://naecs.crc.uiuc.edu/position/pscape.html

NICHD Early Child Care Research Network. (2000). Characteristics and quality of child care for toddlers and preschoolers. *Applied Developmental Science, 4*(3), 116-135.

Peisner-Feinberg, Ellen S., & Burchinal, Margaret R. (1997). Relations between preschool children's child-care experiences and concurrent development: The Cost, Quality, and Outcomes Study. *Merrill-Palmer Quarterly, 43*(3), 451-477.

Phillipsen, Leslie C.; Burchinal, Margaret R.; Howes, Carollee; & Cryer, Debby. (1997). The prediction of process quality from structural features of child care. *Early Childhood Research Quarterly, 12*(3), 281-303.

Preschool Curriculum Evaluation Research Consortium. (2008, July). *Effects of preschool curriculum programs on school readiness: Report from the Preschool Curriculum Evaluation Initiative.* Washington, DC: National Center for Education Research, Institute of Education Sciences, U.S. Department of Education. Retrieved December 19, 2008, from http://ies.ed.gov/ncer/pubs/20082009/index.asp

Scherer, Marge. (Ed.). (1999). *A better beginning: Supporting and mentoring new teachers.* Alexandria, VA: Association for Supervision and Curriculum Development.

Schweinhart, Lawrence J.; Montie, Jeane E.; Xiang, Zongping; Barnett, W. Steven; Belfield, Clive R.; & Nores, Milagros. (2005). *Lifetime effects: The High/Scope Perry Preschool study through age 40* (Monographs of the High/Scope Educational Research Foundation No. 14). Ypsilanti, MI: High/Scope Press.

Shonkoff, Jack P., & Phillips, Deborah A. (Eds.). (2000). *From neurons to neighborhoods: The science of early childhood development.* Washington, DC: National Academy Press.

Tout, Kathryn; Zaslow, Martha; & Berry, Daniel. (2005). Quality and qualifications: Links between professional development and quality in early care and education settings. In Martha Zaslow & Ivelisse Martinez-Beck (Eds.), *Critical issues in early childhood professional development* (pp. 77-110). Baltimore, MD: Paul H. Brookes.

Vu, Jennifer A.; Jeon, Hyun-Joo; & Howes, Carollee. (2008). Formal education, credential, or both: Early childhood program classroom practices. *Early Education and Development, 19*(3), 479-504.

Wilson, H. Kent; Pianta, Robert C.; & Stuhlman, Megan. (2007). Typical classroom experiences in first grade: The role of classroom climate and functional risk in the development of social competencies. *Elementary School Journal, 108*(2), 81-96.

Winton, Pamela J.; McCollum, Jeanette A., & Catlett, Camille (Eds.). (2007). *Practical approaches to early childhood professional development: Evidence, strategies, and resources.* Washington, DC: Zero to Three.

Zaslow, Martha, & Martinez-Beck, Ivelisse. (Eds.). (2005). *Critical issues in early childhood professional development.* Baltimore, MD: Paul H. Brookes.

Author Information

Marilou Hyson, Ph.D. is senior consultant for the National Association for the Education of Young Children and affiliate faculty in the Applied Developmental Psychology program at George Mason University. She has contributed to standards development and accreditation systems for early childhood teacher education. Her research, consulting activities, and publications have addressed issues in early childhood professional development as well as children's emotional development and their approaches to learning.

Marilou Hyson, Ph.D.
NAEYC
1313 L Street, NW, Suite 500
Washington, DC 20036
Telephone: 202-365-4791
Email: mhyson@naeyc.org

Heather Biggar Tomlinson, Ph.D., is a professional development specialist at the National Association for the Education of Young Children. A former Congressional Fellow, her interests include higher education quality, teacher preparation, and the applications of developmental research to early childhood programs and practices.

Carol A. S. Morris, M.S., is a doctoral candidate in the Applied Developmental Psychology program at George Mason University in Fairfax, Virginia. Her area of interest is teacher-child interactions, with the ultimate goal of assisting early childhood professionals in creating more positive emotional environments for the children in their care.

Appendix A

Survey Questions

Note: Not all respondents received all questions; specified answers triggered a skip function to pass over irrelevant questions.

1. I agree to participate in this survey.

☐ Yes

2. What is the title of your program or programs? Please check all that apply.

☐ Early Childhood Education

☐ Child Development

☐ Early Childhood and Elementary Education

☐ Other (please specify) _____

3. In which larger unit, school, or college in your institution is your program located?

☐ Education

☐ Child or Family Studies

☐ Consumer or Family Sciences

☐ Social or Behavioral Sciences

☐ Human Development

☐ Health/Human Services

☐ Arts & Sciences

☐ Other (please specify) _____

4. What is your own position within the program?

☐ Department chair or program head

☐ Early childhood education coordinator

☐ Full-time faculty, not chair/head

☐ Part-time or adjunct faculty, not chair/head

☐ Administrator of unit within which early childhood program is located

☐ Other (please specify) _____

5. Does your institution offer a CDA or One-Year Certificate?

☐ No

☐ Yes, in addition to other degree programs

☐ Yes, we only offer a CDA or One-Year Certificate

6. Does your early childhood program offer an associate's degree?

☐ Yes

☐ No

7. Approximately how many associate's degree students are currently enrolled?

☐ Degree offered, but no students enrolled

☐ 1 - 10 students

☐ 11 - 25 students

☐ 26 - 50 students

☐ 51 - 100 students

☐ 100+ students

8. Approximately how many associate's degrees are awarded annually?

☐ 0 – 10
☐ 11 - 25
☐ 26 - 50
☐ 51 – 100
☐ 100+

9. Does your early childhood program offer a bachelor's degree?

☐ Yes
☐ No

10. Approximately how many bachelor's degree students are currently enrolled?

☐ Degree offered, but no students enrolled
☐ 1 - 10 students
☐ 11 - 25 students
☐ 26 - 50 students
☐ 51 - 100 students
☐ 100+ students

11. Approximately how many bachelor's degrees are awarded annually?

☐ 0 – 10
☐ 11 - 25
☐ 26 - 50
☐ 51 – 100
☐ 100+

12. Does the bachelor's degree program lead to certification/licensure?

☐ Yes, for all students
☐ Yes, it could if the student chooses
☐ No

13. Does your early childhood program offer a master's degree?

☐ Yes
☐ No

14. Approximately how many master's degree students are currently enrolled?

☐ Degree offered, but no students enrolled
☐ 1 - 10 students
☐ 11 - 25 students
☐ 26 - 50 students
☐ 51 - 100 students
☐ 100+ students

15. Approximately how many master's degrees are awarded annually?

☐ 0 – 10
☐ 11 - 25
☐ 26 - 50
☐ 51 – 100
☐ 100+

16. Does the master's degree program lead to certification/licensure?

☐ Yes, for all students
☐ Yes, it could if the student chooses
☐ No

17. Does your early childhood program offer a doctoral degree?

☐ Yes
☐ No

18. Approximately how many doctoral students are currently enrolled?

☐ Degree offered, but no students enrolled

☐ 1 - 10 students

☐ 11 - 25 students

☐ 26 - 50 students

☐ 51+ students

19. Approximately how many doctoral degrees are awarded annually?

☐ 0 – 10

☐ 11 - 25

☐ 26 - 50

☐ 51 – 100

☐ 100+

20. Please tell us about the faculty who have their primary responsibility in your early childhood program (including all degree programs if you have several).

Number _____

Rated for: Full-time and Part-time/adjunct

☐ 0

☐ 1 - 3

☐ 4 - 9

☐ 10 – 15

☐ 16+

Approximate percentage with a degree in early childhood education

Rated for: Full-time and Part-time/adjunct

☐ None

☐ 1 – 25%

☐ 26 – 50%

☐ 51 – 75%

☐ 76 – 100%

Approximate percentage of with a degree in child development

Rated for: Full-time and Part-time/adjunct

☐ None

☐ 1 – 25%

☐ 26 – 50%

☐ 51 – 75%

☐ 76 – 100%

Approximate percentage with a degree in elementary education

Rated for: Full-time and Part-time/adjunct

☐ None

☐ 1 – 25%

☐ 26 – 50%

☐ 51 – 75%

☐ 76 – 100%

Approximate percentage with direct employment experience with children 0-8

Rated for: Full-time and Part-time/adjunct

☐ None

☐ 1 – 25%

☐ 26 – 50%

☐ 51 – 75%

☐ 76 – 100%

21. How much do you, personally, know about and rely on the following sources for guidance in maintaining or improving program quality?

Rating options: Know About and Rely Very much, Know About and Rely Somewhat, Know About and Rely Very little, Do Not Know About

Our state's standards for teacher preparation
Our state's child outcome standards or early learning guidelines
NAEYC standards for professional preparation
NAEYC standards for programs serving children
Standards from other national organizations (such as NCATE, NCTM, INTASC)

22. Would other faculty in your program be likely to answer in a similar way?

☐ Very likely

☐ Somewhat likely

☐ Somewhat unlikely

☐ Very unlikely

☐ Do not know

23. Are there specific researchers, research reports, or research findings that you, personally, rely upon frequently? If so, please cite an example or examples.

1. _____
2. _____
3. _____

24. Would other faculty in your program be likely to answer in a similar way?

☐ Very likely

☐ Somewhat likely

☐ Somewhat unlikely

☐ Very unlikely

☐ Do not know

25. Are there specific theorists or theories upon which you, personally, base your approach to early childhood education? If so, please cite an example or examples.

1. _____
2. _____
3. _____

26. Would other faculty in your program be likely to answer in a similar way?

☐ Very likely

☐ Somewhat likely

☐ Somewhat unlikely

☐ Very unlikely

☐ Do not know

27. What student competencies or outcomes do you, personally, consider most essential in preparing future professionals? Understanding that these are only examples, please list up to 3 in each of the following areas: knowledge, skills, and dispositions (such as professional attitudes/behaviors).

1. Knowledge _____
2. Knowledge _____
3. Knowledge _____

1. Skill _____
2. Skill _____
3. Skill _____

1. Disposition _____
2. Disposition _____
3. Disposition _____

28. Would other faculty in your program be likely to answer in a similar way?

☐ Very likely

☐ Somewhat likely

☐ Somewhat unlikely

☐ Very unlikely

☐ Do not know

29. Strengthening students' effectiveness this year: Again from your personal perspective, what are your current priorities to enhance students' effectiveness as future early childhood practitioners? Although all of the items listed may be important, please focus on your priorities for this year (select all that apply).

☐ Working more effectively with infants and toddlers

☐ Working more effectively with primary-grade children

☐ Better ability to produce positive child outcomes in specific areas (e.g., literacy, math, social/emotional development)

☐ Improved content knowledge in a certain area (e.g., mathematics, literacy, science)

- [ ] More comfort and skill working with culturally and linguistically diverse children
- [ ] More comfort and skill working with children who have disabilities or developmental delays
- [ ] Having more frequent and developmentally supportive interactions with individual children
- [ ] Working more effectively with families
- [ ] Better skills in addressing children's challenging behaviors
- [ ] Better skills in using appropriate assessments of young children
- [ ] Better promoting children's health, safety, and nutrition
- [ ] Developing more professionalism and use of ethical standards
- [ ] Implementing high-quality curriculum effectively
- [ ] Working more effectively with other professionals
- [ ] Knowing about and using others' research in their practice with children
- [ ] Better developing students' own research skills
- [ ] Being more effective leaders and advocates
- [ ] Other (please specify)

30. Would other faculty in your program be likely to answer in a similar way?

- [ ] Very likely
- [ ] Somewhat likely
- [ ] Somewhat unlikely
- [ ] Very unlikely
- [ ] Do not know

31. Activities that support quality improvement priorities this year: Considering your early childhood program as a whole (not just your personal activities), please indicate which activities are the focus of your program's efforts this year (select all that apply).

- [ ] Redesigning courses or developing new courses
- [ ] Improving the quality of students' field experiences
- [ ] Developing new ways to assess student competencies
- [ ] Analyzing our program for alignment with national or state standards
- [ ] Engaging in a systematic self-study of our program to prepare for accreditation review
- [ ] Engaging in systematic self-study of our program, not connected with an accreditation process
- [ ] Submitting an application/program report for accreditation review
- [ ] Engaging in overall program revision or reconceptualization
- [ ] Any other major activity not previously mentioned (please specify)

32. Is your program focusing effort on building faculty capacity this year?

- [ ] This year, we are focusing little or no effort on this area.
- [ ] This year, we are focusing some or a lot of effort on this area.

33. Please briefly comment on why the program may be focusing little or no effort on building faculty capacity this year (such as a hiring freeze or recent completion of a major faculty development project).

_____
_____
_____
_____

34. Building faculty capacity is one way to support quality-improvement priorities. Please indicate which faculty-related activities are the focus of your program's efforts this year (select all that apply).

- [ ] Hiring more full-time faculty
- [ ] Hiring more part-time or adjunct faculty
- [ ] Hiring faculty with higher levels of formal education (for example, more faculty with doctorates)
- [ ] Hiring faculty with current knowledge and experience in early childhood education specifically
- [ ] Fostering a more collaborative spirit among program faculty
- [ ] Involving faculty in workshops or retreats
- [ ] Improving faculty access to current research, professional development resources, or conferences
- [ ] Improving access to colleagues in other early childhood teacher preparation programs
- [ ] Reducing workloads to allow more time for quality improvement activities
- [ ] Other (please specify) _____

35. How would you describe the way your faculty currently interacts around program improvement?

- [ ] Faculty frequently work together as a team.
- [ ] Faculty sometimes work together as a team.

☐ Faculty work together infrequently.

☐ Other (please specify) _____

36. In general, how would you describe how your early childhood program currently functions? Please be frank.

☐ We are in change mode. We are responding to new external requirements.

☐ We are in implementation or maintenance mode. We are putting into practice what we have developed.

☐ We are in survival mode. We are keeping our heads above water just teaching courses and advising students.

☐ We are in fatigue mode. Most faculty are too tired and indifferent to think about innovation or improvements.

☐ We are in conflict mode. Energy is mostly going into interpersonal conflicts and turf issues.

☐ We are in building mode. We are able to invest time and energy in quality improvement.

☐ We are in celebration mode. We feel our quality improvement efforts are getting results and we are energized to do more.

☐ Other description of program functioning, or comments.

37. How much support does/would your institution's upper administration (for example, dean, provost, president) give to the early childhood program's quality improvement activities?

Rating options: A great deal, Some, Very little, None, Do not know

☐ Philosophical/conceptual support

☐ Financial or other resources support

38. What kinds of information, support, or resources (financial or other) would contribute to the continuing improvement of your early childhood program?

_____
_____
_____
_____

39. Is national accreditation or state approval of your early childhood program required by your state or institution?

☐ Yes

☐ No

40. National accreditation or state approval of our early childhood program is required and...

☐ We are very pleased that accreditation/approval is required; it has significant benefits for us.

☐ We are somewhat pleased that accreditation/approval is required; the process is worthwhile despite significant challenges.

☐ We are somewhat displeased that accreditation/approval is required; in general, the benefits do not outweigh the work involved.

☐ We are very displeased that accreditation/approval is required; it is much too time-consuming and competes with other priorities.

☐ No general statement is possible; faculty disagree strongly about the value of accreditation/approval.

41. National accreditation or state approval of our early childhood program is not required and...

☐ We think accreditation/approval is definitely a worthwhile process; we participate voluntarily.

☐ We think accreditation/approval is a worthwhile process; we might like to participate if possible.

☐ We are mostly pleased that accreditation/approval is not required; the benefits probably would not outweigh the additional work.

☐ We are very pleased that accreditation/approval is not required; we see no benefit in going through the process.

☐ No general statement is possible; faculty disagree strongly about the value of accreditation/approval.

42. Is your early childhood program nationally accredited or approved by your state? If you have more than one program and have different answers (both yes and no), please check all yeses that apply (and do not click "no").

☐ Yes, by NCATE/NAEYC

☐ Yes, by NAEYC's Early Childhood Associate Degree Accreditation

☐ Yes, by our state using nationally approved standards

☐ Yes, by the state using other standards

☐ No/Not yet

43. As a program that has successfully gone through national accreditation or state approval, have you seen specific benefits as a result? Please check all that apply.

☐ Clearer sense of our program's mission, strengths, and needs

☐ Greater collaboration among the early childhood faculty

☐ Greater collaboration with other parts of our institution

☐ Improved learning opportunities for our students

☐ Improved assessment of our students' competence

☐ Better ability to use data for program improvement

☐ Enhanced reputation of our program

☐ Increased ability to attract resources

☐ Increased sense of pride and accomplishment among faculty and students

☐ Few if any benefits, despite the successful outcome

☐ Other benefits or comments

44. Our early childhood program is not nationally accredited or state approved because

☐ We have not yet applied but plan to.

☐ We have applied and are engaged in self-study.

☐ We have submitted a report and await a decision.

☐ We applied but were found not in compliance with one or more standards; we plan to submit a revised report.

☐ We applied but were found not in compliance with one or more standards; we do not plan to resubmit.

☐ We have never applied and do not plan to.

☐ Other (please specify)

46. At a later date, we hope to conduct telephone interviews with a limited number of respondents to this survey. Would you be willing to participate in a brief telephone interview?

☐ Yes

☐ No

47. So that we can arrange a time for a brief telephone call (at a later date), please provide your preferred e-mail address here.

_____

Appendix B

Quality Improvement in Teacher Education Programs: Follow-Up Interviews

The first set of questions is about implementing priorities.

1. In the Web survey, we asked about priorities for quality improvement in early childhood teacher preparation programs. Can you tell me about a few of the key priorities for your program?

2. What would help you implement those priorities for your ECE program? [Probe: If the answer focuses mainly *on internal things* that would help implement the priorities, ask about anything outside the institution—for example, state policies. If their answer focuses mainly *on external things*, ask about whether there are things within the institution that can help implement the priorities.]

The next set of questions is about keeping current in theory and research in child development and early childhood education.

In the Web survey, we asked participants about what sources of guidance they use in setting priorities and designing their programs. Respondents reported looking to many different sources. Some cited theory and research as a guiding source and some did not.

3. How important do you think it is to keep up with new developments in theory and research?

4. In your own situation, how easy or difficult is it for you to keep up with new developments in theory and research? [Probe: if they say it's easy, what makes it easy? If they say it's difficult, what stands in the way?]

5. Are there additional resources or supports that would help you and your colleagues keep up with new developments in early childhood theory and research?

The next set of questions is about building faculty capacity.

6. In the Web survey, we asked about what programs are doing to build faculty capacity. Many people referred to hiring freezes or other difficulties in adding enough new, well-qualified faculty. Is that an issue for your program?

7. For the faculty already in your program, what kinds of activities or professional development do you think are important in building the knowledge and skills of current faculty?

8. Are those activities happening or being supported? What is your program or institution doing to build the knowledge and skills of faculty? [Probe: if their answer is about general faculty development across all departments, help interviewee focus on the ECE department or professional development specifically aimed at ECE faculty.]

9. Do you think enough is being done by your program and institution to build the ECE faculty's capacity? [Probe: If not, what else do you think is needed?]

Now let's turn to some questions about student competencies.

10. As your students prepare to become early childhood educators, what are the areas in which they are having the most difficulty, or that are the most challenging for them?

11. Why do you think those are especially challenging areas? [Probe: Are the challenges because of something about the students, the design of the program, etc.?]

Next we would like to ask some questions about accreditation.

The results of the Web survey showed a great deal of interest in the accreditation of professional preparation programs as a tool for quality improvement, but there were also

some differences of opinion expressed by the respondents. Respondents had both positive and negative impressions of accreditation.

12. Speaking for yourself, regardless of what your colleagues might say, how do you feel about accreditation of college and university ECE programs as a way to achieve quality improvement?

13. What have been your experiences with accreditation of early childhood professional preparation programs, or what have you heard?

14. Are there issues that the accrediting bodies should know about? [If so, what are they?] Note: if it's already clear that the person doesn't think accreditation's important, skip the next question, but make a note.]

15. It sounds like you think it [could/would] be beneficial to increase the number of accredited early childhood teacher preparation programs. What would need to happen to accomplish this, in your opinion? [Probe: For example, resources to support self-study? More training about the accreditation process? Changes to the process?]

The next questions are about the organizational climate of your program.

In the Web survey, we asked about programs' organizational climate. You may remember that we asked you to choose among several options to describe your climate. These included the following: building mode, survival mode, implementation or maintenance mode, change mode, conflict mode, fatigue mode, or celebration mode. [Note: read them the definitions, if needed.]

16. How would you characterize your program's climate right now? You don't need to pick one of these labels if they don't seem to fit. [Probe: if they just give the "mode," or a quick label, like "terrible," say: Can you say a little more about that? Or: What makes you say so?]

17. In your opinion, is your program moving in a positive or a negative direction, and what makes you think so?

18. Why do you think [those things are happening/it's moving in that direction]?

That's all the questions we have that refer to the Web survey specifically. Now we would like to ask your opinion about a few broader issues.

19. Looking into your crystal ball, what do you see as the future of early childhood teacher education—in general, not just in your own program? [Probes: if just says "promising," or "at risk," ask: What leads you to that conclusion? What are some signs on the horizon for you?]

We just have a couple of more questions and then we will be through.

Here's another big issue: Some people are questioning whether *degrees* really make a difference in what teachers do and in outcomes for children. In fact, some recent research is calling into question the benefit of teachers having a degree.

20. Do you think that degrees make a difference? Why or why not? [If their answer is something like, "it depends," ask for further information: Can you tell me more about that?]

21. And finally, is there anything else about early childhood teacher preparation that you would emphasize as needing improvement? [Probe: for example, are there things in the typical college curriculum or methods of preparation that should be changed or given more emphasis?]

22. Is there anything else I have not asked about that you would like to share?

View responses to this article from invited panel members…