From All to Each and Every: Preparing Professionals to Support Children of Diverse Abilities

Camille Catlett, M.A.,
Frank Porter Graham Child Development Institute

Susan P. Maude, Ph.D.,
Iowa State University

Melanie Nollsch, M.S., and Susan Simon, M.A.,
Kirkwood Community College

W*hy would my students need to know about assistive technology? That's just for special education students.*

> Question posed by an early childhood faculty member from Ohio, January 2014

Over a decade of research has consistently revealed the lack of emphasis on young children of diverse abilities in the coursework and field experiences of associate's and bachelor's degree programs that are preparing early childhood teachers (Chang, Early, & Winton, 2005; Goor & Porter, 1999; Maude et al., 2010; Maxwell, Lim, & Early, 2006; Ray, Bowman, & Robbins, 2006). Thus, it is not surprising when a national study reveals that while 71% of surveyed teachers taught students with disabilities, only about 17% felt very well prepared to meet the needs of these students (National Center for Education Statistics, 2002). As well documented as preparation shortcomings are, both internal and external constraints (e.g., lack of philosophical support from upper administration, reliance on adjuncts, lack of professional development for faculty members vis-à-vis new content or priorities) make changes in emphasis in preservice early childhood programs difficult (Hyson, Tomlinson, & Morris, 2009).

In many ways, early childhood educators are the gatekeepers of opportunities for young children of diverse abilities to fully participate in learning, development, and play with typically developing peers. It is within

their classrooms, with appropriate services, supports, and collaboration, that young children of diverse abilities enjoy the full benefits of quality inclusion. Fueled by recent revisions in standards (National Association for the Education of Young Children, 2009a), position statements (Division for Early Childhood/National Association for the Education of Young Children, 2009), and evidence-based practices (National Professional Development Center on Inclusion, 2011), support by families and professionals for quality inclusion is higher than ever.

This article highlights how one early childhood associate degree program set out to more effectively prepare future early childhood educators to support young children of diverse abilities in inclusive settings. The lessons learned from this project can help others realign their priorities for, and perspectives on, supporting each young child, whether by preparing future professionals, delivering training and technical assistance, or working directly to support children and families.

Setting the Stage

In 2010, Kirkwood Community College in Cedar Rapids, Iowa, with support from a grant from the Office of Special Education Programs, set out to examine and revise their paraeducator program in early childhood education to better support young children who are culturally, linguistically, and/or ability diverse. Kirkwood's Associate of Applied Science (AAS) in Early Childhood Education (ECE) is a sequence of preparation that requires nine early childhood education courses, plus four or five additional courses in early childhood and/or special education.[1] The federal grant required program leaders at Kirkwood to examine and revise required courses to incorporate an emphasis on 11 areas of evidence-based practice for supporting young children of diverse abilities in early childhood settings (see Figure 1). In addition, program leaders were tasked with incorporating field experiences that would prepare students to support diverse young learners and providing professional development that would prepare faculty to fully incorporate new methods, models, and materials in their coursework.

To support the sequence of change and improvement required by the grant, the early childhood leaders at Kirkwood Community College used an evidence-based model for supporting change in higher education programs called the Crosswalks Intervention Model as the basis for

[1] It is important to note that the AAS in Early Childhood program at Kirkwood Community College was a very strong program before applying for the grant. Leaders at this institution have been actively and successfully working to grow the quality of the program for many years. Application for, and perseverance through, this project show the extent to which this program is committed to quality and excellence.

Figure 1
**Areas of Evidence-Based Practice Required by the Office of Special Education Programs (OSEP)**

1. Knowledge of typical disability conditions

2. Expectations and outcomes related to children of diverse abilities

3. Instructional strategies to support early development and learning, or preacademic achievement

4. Skills for modifying learning environments to meet the needs of young children of diverse abilities

5. Skills for observation and data collection

6. Skills for assisting in the implementation of transition plans and services across settings

7. Skills for communicating effectively with children and families

8. Skills for developing and implementing IFSPs and IEPs

9. Skills for providing clear expectations for outcomes of children who are culturally and linguistically diverse and their families

10. Skills for emphasizing social-emotional and behavioral interventions and classroom management practices

11. Skills for collaborating and working effectively with related services professionals/practitioners

enhancing coursework and developing instructor expertise (Maude et al., 2010). Where the original Crosswalks Intervention Model addressed change and improvement related to incorporating cultural and linguistic diversity, Kirkwood's adaptation of the Crosswalks model used the same five-step framework to incorporate an emphasis on ability diversity, while at the same time paying attention to ways in which cultural and linguistic diversity could also be infused.

What Did We Do?

Kirkwood's approach unfolded in the same five phases as were used in the Crosswalks Intervention Model (see Figure 2). In the *first phase* of the 4-year project, Kirkwood leaders formed an Advisory Committee consisting of full-time and adjunct faculty members, and community partners drawn from Head Start, local schools, the Area Education Agency, graduates of the Kirkwood program working in the early childhood field, and faculty from related disciplines. Early in the project, a full-day retreat with key Kirkwood faculty, adjuncts, and community partners provided an opportunity to develop a shared vision of

Figure 2
Phases of Kirkwood Project Approach
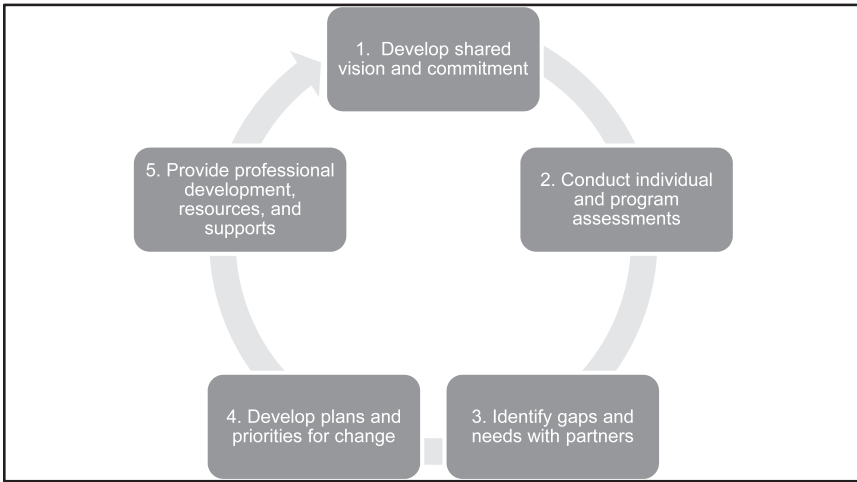
the knowledge, skills, and dispositions they wanted to grow in each graduate of the program. This was accomplished through a Crosswalks Intervention activity called the Graduate of the Future, which invited faculty members and community partners to collaboratively develop a picture of what they wanted future graduates of the early childhood program to know and be able to do.

The *second phase* of the process, focused on gathering information about all components of the Kirkwood early childhood program through a systematic needs assessment process. Information about the program, the faculty members, and the students were each assessed in a variety of ways, as described below. Please note that these are only a partial listing of the needs assessments, faculty, student, and/or program measures that were used.
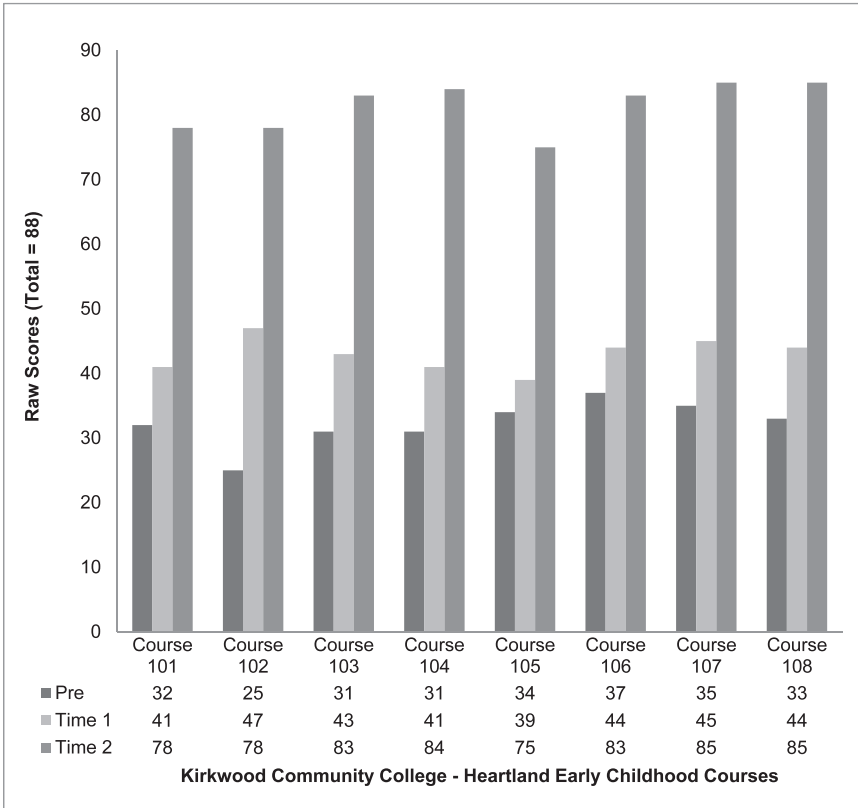
- Three aspects of the overall early childhood program—coursework, field experiences, and program practices—were assessed by faculty members and community partners. Individuals were asked to identify areas of strength and areas for improvement, all of which were then compiled in a profile of the program.
- Information about the knowledge, skills, and capabilities of Kirkwood faculty members were assessed using the Crosswalks Assessment of Knowledge, Skills, and Instructional Strategies (CAKSkIS).
- Each Kirkwood syllabus was assessed using a rubric organized by areas required by the OSEP grant (see Figure 1). In addition to review by faculty and advisory committee members, syllabi were also reviewed by independent outside evaluators.

The *third phase* provided the opportunity to examine all findings using data from evaluations and input from the retreat. Attention was paid to areas in which instructors showed less content expertise and to aspects of content that were not reflected in course syllabi. With these data in hand, plans were developed for ways in which to build capability (the *fourth phase*). Different approaches were identified based on the nature of the finding (e.g., one-on-one consultation, whole group presentation). With plans and priorities articulated, the work of the *fifth phase*—the provision of professional development, resources, and supports to achieve targeted changes—could unfold. Examples that follow will highlight changes in two major components of the associate degree program: (1) course syllabi and (2) knowledge and skill of faculty members and community partners. Diversity of knowledge and skill across participants was taken into account in designing professional development. For example, all adjunct faculty, some community partners, and Kirkwood's program leaders hold master's degrees in either early childhood or special education. Other community partners held associate degrees in early childhood. The roles or agencies represented as "community partners" also reflected those serving on the advisory board (Head Start, community child care, Area Education Agency, paraeducators, school district teachers, etc.).

To address priorities for changes in course syllabi, Kirkwood colleagues used a process from the Crosswalks Intervention (deconstruction/reconstruction). Each of the eight syllabi was reviewed by an outside content expert who suggested evidence-based sources, readings, audiovisual materials, and Web sites for incorporating the desired areas of emphasis. Possible revisions to activities and assignments were also offered. The Kirkwood program director worked with the adjunct faculty members who teach each course to revise all aspects of the syllabus. The outside content expert reviewed the revised syllabi and offered additional suggestions. Then, after additional revisions and over time, each syllabus was reassessed using the syllabus rubric to measure progress by both the participating faculty members and an external evaluator. A summary of that progress is displayed in Figure 3.

One starting point for the revisions was to make certain that language used in each syllabus was inclusive and explicit. For example, faculty members shifted from using the word *parents* to either *family* or *parents and family.* This explicit and consistent change was a constant reminder to faculty and students alike that the broader term was inclusive of people such as aunts, grandmothers, siblings, foster families, and others in each child's life. This also took the form of introducing new terms and content. For many of the early childhood faculty members, for example, assistive technology was a relatively unfamiliar concept. When resources and

Figure 3
**Course Syllabi Rubric Scoring Results by External Evaluator, Results Are
Reflective of Syllabi from 2008 to 2013.**

	Course 101	Course 102	Course 103	Course 104	Course 105	Course 106	Course 107	Course 108
■ Pre	32	25	31	31	34	37	35	33
■ Time 1	41	47	43	41	39	44	45	44
■ Time 2	78	78	83	84	75	83	85	85

Kirkwood Community College - Heartland Early Childhood Courses

ideas for how to use assistive technology to support the full participation of children with and without disabilities were shared, faculty readily embraced the shift and identified ways to incorporate an emphasis on assistive technology in each Kirkwood course.

Another starting point was to identify and incorporate evidence-based practices that were underpinnings for each course, drawing on resources from the National Association for the Education of Young Children (NAEYC) and the Division for Early Childhood of the Council for Exceptional Children (DEC/CEC), among others. This supported the priority for all changes to Kirkwood syllabi to support alignment with both national (DEC, NAEYC) and state standards.

Support for growth in faculty and community partner expertise took several forms. Professional development sessions were organized around content areas that were targeted for enhancement from the initial knowledge, skills, and instructional strategies survey as well as what emerged in

discussion or end-of-session evaluation forms during ongoing professional development activities. Some sessions were organized exclusively for faculty and incorporated examples of how new content could be addressed through readings, activities, and assignments. Other sessions provided rich opportunities for faculty and community partners to learn together. For example, one area for enhancement was building the capacity of students to respond to dilemmas in their daily practice (e.g., incorporating Individualized Education Program (IEP) goals for one child embedded within the daily early childhood curriculum). To prepare for the professional development on this topic, faculty gathered examples of dilemmas that frequently arise in settings that support young children of diverse abilities. Presenters then shared effective approaches for navigating real world dilemmas. The result enabled faculty to incorporate the dilemmas and the approaches in their coursework and collaborate with community partners to implement or share the same approaches.

To ensure that new areas of emphasis were not superficial (e.g., one new article), Kirkwood developed a tool they call a curriculum map. Curriculum maps were designed to ensure that key concepts were embedded in all early childhood courses in ways that built knowledge and skill without being repetitive. So, for example, the curriculum map on inclusion identifies specific media, speakers, materials, instructional approaches, and assignments that can be used to increase the emphasis on inclusion in *each* course in the Kirkwood program. (Note: Kirkwood's curriculum maps are available to view or download at the early childhood program's Web site.) Additional strategies for developing expertise included purchasing resources and software especially in the area of assistive technology (e.g., Boardmaker™).

What Happened?

The instrument used to evaluate the eight syllabi consisted of a 22-item rubric organized across the following areas: Course Description (four items); Course Objectives (five items); Texts, Readings, and Resources (three items); Assignments (five items); Guest Speakers (two items); and In-Class Instructional Experiences (three items). Individual indicators under each of the six areas included statements assessing whether there was evidence of cultural diversity, linguistic diversity, ability diversity,

I think the vocabulary (diversity, problem solving, adaptations) we have been using has become more universal in all of the classes, too.

Faculty member

evidence-based practices, problem solving, and/or collaboration in the syllabus and supporting documents. The rating scale ranged from 1 or None/Little, 2 or Some, 3 or Significantly, to 4 or Extensively. The maximum score possible was 88. Kirkwood's target was a score of 70 or higher on each syllabus.

Syllabi were evaluated across multiple time periods (pre-intervention or baseline, Time 1, and Time 2). Data were shared with key faculty members and adjunct staff at each point in time so professional development could be focused on areas in which growth was not occurring. For instance, syllabi were showing little growth in the areas of problem solving so a focused professional development retreat was designed on the use of cultural dilemmas as an instructional strategy supporting problem solving and diversity.

Figure 3 provides a summary of the results obtained by the external evaluator. Here you can see some growth between the pre- or baseline syllabi and Time 1 (1 year after the scoring of pre-syllabi) with significant growth at Time 2 (two years after scoring the Time 1 syllabi). Although not all syllabi were able to obtain the maximum score of 88, all demonstrated significant growth and improvement over time, having received low initial scores between 25 and 37 and moving to higher, more positive scores ranging from 75 to 85. All syllabi exceeded the target goal of 70 points or higher.

Multiple measures and methods were used to capture changes in faculty members and community partners' knowledge, skills, and dispositions. These included self-assessment instruments (pre-/post-), end of professional development retreat or event evaluations, and focus groups. At this time we are able to share these additional results obtained from the following: (1) end of retreat surveys by faculty members and community partners and (2) focus group data from full-time and adjunct faculty members and students. Capturing change in professional development has some limitations when using a traditional pretest-posttest model of evaluation. Often participants do not "know what they don't know" until after the professional development activities are conducted. Therefore, we chose to implement a retrospective pretest model (Allen & Nimon, 2007; Lynch, 2002) at various points across the project in addition to traditional pretest-posttest methods. In a retrospective pretest model

> *The directions are much clearer, and we have definitely put an emphasis on adaptations for all of the activities in the course assignments.*
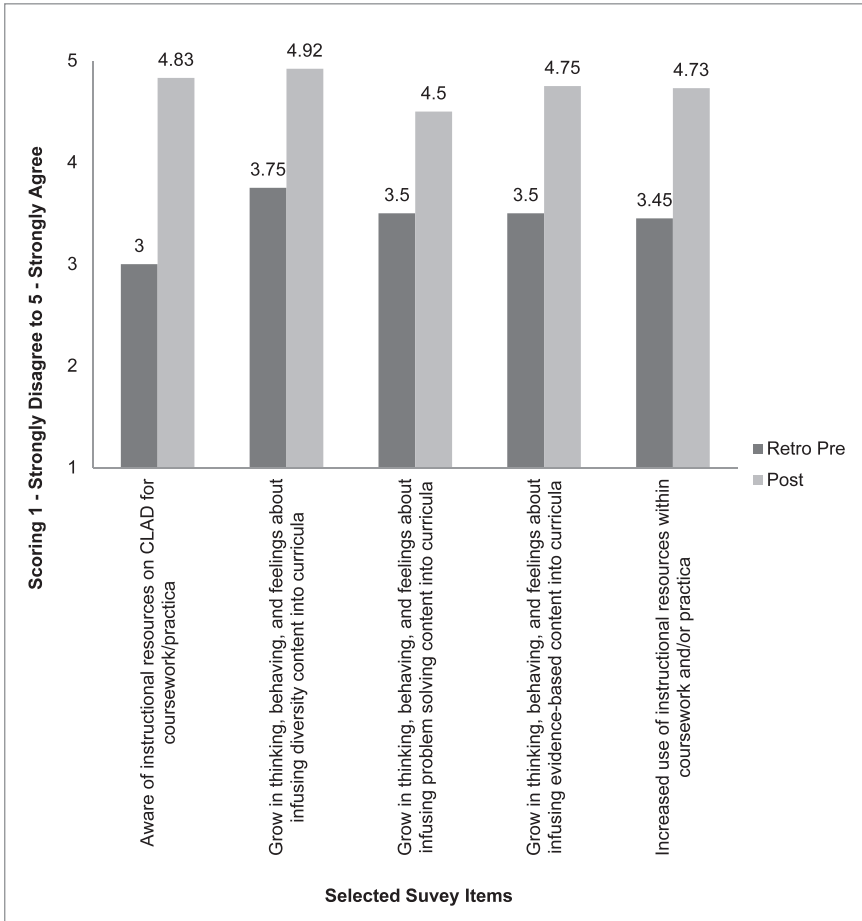>
> Kirkwood student

Figure 4
Evaluation of Professional Development Events by Faculty

one collects both pretest and posttest evaluation data at the end of the professional development activity.

Typically, participants are asked to rate their perceptions on their knowledge, skills, or dispositions after the event and compare that to where they would rate themselves prior to the professional development event. As noted in Figure 4, faculty members and community partners indicated positive shifts in their awareness, growth in reflecting about, and/or use of instructional strategies that supported infusion of culture, language, and/or ability diversity. These data were further supported as we collected more qualitative data.

A series of focus groups were facilitated by both the internal and external evaluators. Students participated in a focus group as they were exiting their program while full-time and adjunct faculty members participated in

one of two focus groups held approximately half-way through the grant cycle. The feedback from faculty members identified several themes that underscore progress on the targeted goals. First, they reported an increased understanding of expectations for them on specific curricular and content areas to be covered in their course work.

Second, faculty members indicated that they were exposed to and willing to utilize evidence-based resources on culture, language, and ability diversity within their coursework. As one faculty member said,

> *Just knowing that these resources are out there is new—especially the Web sites [for OSEP-funded projects]. For instance, the professional sites like CSEFEL [the Center on the Social and Emotional Foundations of Early Learning]… just being able to refer to the articles and pull those research-based articles to support what's already (covered) in the text.*

Third, faculty members identified an increased awareness about and emphasis on culture, language, or ability diversity across the ECE curriculum as a whole. One faculty member offered this example:

> *I was teaching about how you can teach children to write and all that is involved. … I noticed that in my class of 10 students that night a third of them were English language learners themselves. I asked to be sure there weren't any others, and I never would have done that before. But the three that were English language learners, one was Spanish, one was Chinese, and one was Hindi. So I had them each come up and write their name, in their (home) language, their native language on the chalkboard. Then they each shared their stories about how each of them learned English, and they were all a little bit different.*

When asked specifically if they would have done any of the previous activities before this grant, a typical response was

> *I really don't think so. I never have [done that] and I've taught that class session many times before. It was just that awareness [that I have gained through the grant] of cultural differences and language learning that brought it to my mind. I didn't plan it in advance. You know it was just something that I was aware of as we were talking about the topic of how we teach writing.*

Finally, faculty members shared how participating on this grant made them more intentional in addressing culture, language, and ability diversity. As one said,

I'm reflecting more and I practice (strategies more). I'm think-
ing a lot more about what I've done each evening after I teach.
I used to not really think that much about it actually but I
really think now and I'm trying a little bit differently because
I'm always thinking about the Heartland Grant and how can
I incorporate some aspects of it [what I've learned] each time
I'm teaching.

Lessons for All

The lessons from this project have implications for all the participating partners (faculty members, professional development providers, early childhood special education and allied health colleagues, and early childhood practitioners). For faculty, the most obvious lesson learned is that the Crosswalks Intervention was very effective in supporting desired changes in course syllabi related to increased emphasis on evidence-based practices for supporting diverse young learners. Even though data analysis is not complete, Kirkwood has also learned that the Crosswalks Intervention has supported many desired changes in the knowledge and skill of faculty members.

Additional lessons reflect benefits directly to the Kirkwood program, to the community, and to other institutions of higher education in the state. Benefits to the program included the alignment of ongoing professional development with areas of strength and need. For example, lower CAKSkIS scores on content related to supporting dual language learners, with and without disabilities, and their families led to a sequence of workshops and resources on that topic. Because professional development was provided for both faculty members and community partners, another positive outcome was increased capacity to use evidence-based practices for serving young dual language learners in community field experience sites.

Additional benefits for participating community partners included expanded familiarity with the ECE program at Kirkwood, as well as a stronger sense of investment in, commitment to, and ownership of the program. For example, when Kirkwood faculty members visited community sites, they incorporated real dilemmas that early childhood teachers encounter in their teaching; community partners were impressed with that effort to "keep it real." In addition, opportunities for faculty members and community partners to participate in professional development together heightened both the common knowledge of topics such as inclusion and the shared commitment to preparing students, through the integration of course work and field experiences, to support progress

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Because it is incorporated in all of the courses, we're seeing it in the students as they come through our courses, and we're seeing it then in their practice. When they're doing their field experience and when they're doing their lesson planning.

Faculty member

on their shared vision of a Graduate of the Future. In addition, a shared vocabulary has also built the capacity for communication and collaboration across early childhood and early childhood special education partners.

The other lesson learned through this process has been that change takes time and commitment, a burden made lighter by shared commitment and participation. In Kirkwood's case, the initial investment (Phases 1–5) took over 2 years. The commitment to continued self-assessment and change by this program will ensure that the investments in time and energy will reap rewards for their students, community partners, and the children and families served.

While the level of support, commitment, and change that Kirkwood brought to the change process would be difficult to accomplish without external support, there are lessons they learned that could be of use to any program. Here are six ideas for ways to tackle some of the tasks they accomplished:

1. *Be explicit* with the words, images, and examples you use. Develop an inclusive vocabulary and an intentional filter and use them consistently to examine everything you produce.
2. *Establish a clear vision* for what you want your students or staff to know and be able to do. Using an activity like Graduate of the Future (or a teacher or early interventionist of the future) would be one way. Once a program is clear about the attributes they want each student or staff member to achieve, it will support decisions about what's important and what's not. Further, a clear vision will enable a program to frequently reassess progress toward achieving their vision.
3. *Become skilled* at using approaches that build the capacity for early childhood settings to support children of diverse abilities. For example, Universal Design for Learning (UDL) is a set of practices that help teachers, therapists, and administrators to design and implement early care and education environments that remove physical and structural barriers and provides multiple and varied formats for instruction and learning. The revised DEC Recommended Practices

(Division for Early Childhood, 2014) highlight the effectiveness of UDL (e.g., E2. Practitioners consider Universal Design for Learning principles to create accessible environments).

4. *Use sources from other fields.* Participants in this process benefited tremendously from increased access to evidence-based sources and materials from other fields. Early childhood special education colleagues became more familiar with the emphasis in individually appropriate practice that is foundational to NAEYC's position statement on developmentally appropriate practice (National Association for the Education of Young Children, 2009b). Similarly, early childhood colleagues became more familiar with DEC's Recommended Practices (Division for Early Childhood, 2014).

5. *Embrace resources that bridge diverse fields and perspectives.* The DEC-NAEYC joint position on inclusion is a good example of a resource that can provide a connection among diverse colleagues who want to blend their efforts to support each child's full potential (Division for Early Childhood/National Association for the Education of Young Children, 2009). Or, the Supporting Change and Reform in Preservice Training Project (SCRIPT-NC) has developed "landing pads" of resources for increasing the emphasis on cultural, linguistic, and ability diversity in college courses. Landing pads are available at the project's Web site from which anyone can download resources nine different early childhood topics (http://scriptnc.fpg.unc.edu/resource-search). While these materials were originally developed to share resources that support cultural, linguistic, and ability diversity with faculty members, they are also collections on which students, practitioners, administrators, or family members can draw for evidence-based sources, audiovisual materials, or Web sites.

6. *Establish a community of practice* of faculty members, community partners, and family members to support ongoing program improvements. Be sure to include recent graduates because they will be able to candidly describe what they learned that has been helpful and what they didn't learn but really needed.

The work at Kirkwood Community College provides a powerful model of how one program can support the shift from preparing students to work with *all* children to preparing them to support *each* and *every* child and family. How will you use the lessons they learned to make your own work more explicit, intentional, and inclusive?

Note
For more information, please contact Camille Catlett at camille.catlett@unc.edu

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