New Dimensions for Building Expertise in Mentoring and Differentiation.

A school-college partnership in central Virginia is attempting to meet the complex challenges presented by diversity, standards, and accountability by offering inservice and preservice teachers unique, reform-based professional development opportunities for building expertise in mentoring and differentiating curriculum and instruction. The first phase of this reform-based professional development program involved mentor teacher training that enhanced mentor teachers' skills in guiding new teachers, overseeing field experiences, and supervising student teaching. The second phase involved inviting teachers to form a study group focused on learning and applying the principles of differentiated curriculum and instruction. Data from pre- and post-surveys and a case study of one preservice and one inservice teacher provided evidence of the effectiveness of expanding teacher training to include differentiation. Participants indicated that mentoring of beginning teachers needs should be differentiated to fit the needs of all participants. The school-college partnership revised its professional development model to combine mentoring and differentiation in a reform-based approach that embraced mentoring, coaching, and a study groups. (Contains 16 references.) (SM)
New Dimensions for Building Expertise in Mentoring and Differentiation

Kay Brimijoin and James Alouf

2003
New Dimensions for Building Expertise in Mentoring and Differentiation

Kay Brimijoin, Ph.D. and James Alouf, Ph.D.

One of the most complex challenges in teacher education and professional development is preparing novices and mentor teachers to meet the needs of a diverse student population. Increasing student diversity, coupled with an emphasis on standards and accountability, has dramatized the need to build expertise in differentiating curriculum and instruction for preservice and inservice teachers (Darling-Hammond & McLaughlin, 1996).

Understanding how to create curriculum and deliver instruction that is differentiated for a range of learners and learning styles is characteristic of best practice teaching (Kelly, 2001). Building “best practice” in differentiation is challenging but attainable if professional development is supported by collaboration and reflection (Brimijoin, 2000; Tomlinson, et. al., 1995). Mentoring, peer coaching, and study groups, as reflective and collaborative processes, can enhance best practice in differentiation and provide the means for sustaining “reform-based” professional development that ensures effective transfer from theory to practice (Garet, et al., 2001, p. 920). The collaboration, feedback, and dialogue characteristic of mentoring, peer coaching, and study groups support preservice and inservice teachers as they implement differentiated curriculum and instruction (Brimijoin, 2002; Tomlinson & Allan, 2001). This reform-based professional development allows novice and experienced educators to translate the theory of differentiation into practice while simultaneously researching and studying the principles and theories of responsive teaching, a form of action research described by Allen and Calhoun (1998). Action research in differentiation can be a crucible for change, encouraging preservice and inservice teachers to construct best practice for responding to what Harvard’s
genomics researcher, Hans Hofmann, calls the “tremendous plasticity and potential built into the
genes of each individual” (Shaw, 2003).

A school-college partnership in central Virginia is attempting to meet the complex
challenges presented by diversity, standards, and accountability by offering inservice and
preservice teachers unique, reform-based professional development opportunities for building
expertise in mentoring and differentiating curriculum and instruction. The concept of mixing
mentors, novices and differentiation took shape as qualitative data collected during two phases of
professional development offered rich information about what constitutes best practice in
differentiation for preservice and inservice teachers (Berliner, 1988).

Phase One: Mentor Teaching Training

The first phase of this reform-based professional development program evolved as a
mentor teacher training effort to improve teacher retention and was implemented by the central
Virginia school-college partnership with grant monies from the Virginia Department of
Education. A selective application process targeted a group of volunteers for mentor teacher
training in summer courses and academic-year workshops. The training was designed to enhance
mentor teachers’ skills in guiding new teachers, overseeing teacher preparation field experiences,
and supervising student teaching. Mentors responded to pre- and post-surveys about their training
in summer courses and workshops and mentoring duties during the school year. Survey results
(Walker, et al., 2000) showed that the two-year endeavor had been remarkably successful.
Professional pride increased among mentor teachers as they proactively supported emerging and
beginning teachers. College faculty created new collegial links with K-12 educators, becoming
mentors themselves as they shared current research and innovative pedagogy with teachers and
administrators. Survey results revealed a critical challenge, however, as mentors attempted to
support novices and beginning teachers who struggled to create, implement, and manage
appropriate learning experiences for increasingly diverse classes. Participant responses suggested that training in mentoring would be strengthened by collateral training in differentiating curriculum and instruction.

**Phase Two: A Differentiation Study Group**

The second phase of professional development took shape as the school division invited volunteer teachers to form a study group focused on learning and applying the principles of differentiated curriculum and instruction. Drawing from best practice research on the importance of dialogue and reflection in effective professional development (Birchak, et al., 1998), members of this study group observed each other, analyzed and reflected on their understanding and practice, and collaborated to create and teach differentiated lessons. Study group members conducted action research, using their classrooms as laboratories to test theories, analyze student response, and adjust the design of curriculum and instruction to improve practice (Brimijoin, 1999). Work in the study group was non-evaluative; teachers were encouraged to take risks as they implemented innovative approaches to teaching and learning.

School division administrators were encouraged by the work of the study group, but dismayed by a lack of training in differentiation among candidates for employment. In 1998-99 interview teams found that only one out of ten candidates could define differentiation with any confidence and none had any extensive background in differentiating curriculum or instruction. These findings underscored the need for preservice teachers to be familiar with the principles and practice of differentiation before their student teaching or job interviews. Consequently, the school division invited the college to join the study group phase in order to ensure that their licensure candidates, as potential school division employees, would be trained in differentiation. It seemed most effective to link the differentiation study group with the college’s Teaching Methods course. Inservice and preservice pairs or triads, called study buddies, learned the
principles of differentiation through independent and shared readings, discussion, and analysis of videotaped examples. Together, study buddies created, taught, and evaluated differentiated lessons aligned with state standards and designed to meet varying readiness levels, interests, and learning profiles in local classrooms.

In order to assess the effectiveness of the expanded study group, preservice and inservice teachers completed pre- and post-surveys. Survey results showed that the study group experience gave preservice and inservice teachers a consistent definition of the key principles of differentiation, a clear understanding of what effective differentiation should look like in practice, and the chance to assess their efforts to design and implement differentiated curriculum and instruction through videotape reflection and analysis.

In addition to the pre- and post-surveys, one of the project researchers conducted a case study of two participants from the differentiation study group during a student teaching experience (Brimijoin, 2002). This micro-view of how participants transferred their learning from the study group to the classroom demonstrated the importance of mentoring as the inservice teacher modeled effective, responsive teaching and provided reflective feedback as the preservice teacher attempted to translate theory and principles of differentiation into practice. Case study results provided evidence to support a closer alignment of mentor teacher training and the differentiation study group.

As mentor teacher training and the differentiation study group proceeded on parallel paths, survey and case study results proved helpful in making modifications to improve each phase of professional development. Interestingly, a central theme began to emerge from the data as responses suggested that collapsing the two phases into a unified initiative might facilitate and possibly accelerate efforts to build expertise in differentiation while modeling best practice mentoring (Scherer, 1999).
Method

This study was conducted in a rural school division and at a private, liberal arts college in central Virginia. Qualitative data were collected for professional development evaluation on two levels over two years. First, mentor teachers responded to pre- and post-surveys about their work in summer courses, workshops, and mentoring duties during the school year. Second, preservice and inservice teachers completed pre- and post-surveys about their work in the differentiation study group. Third, one of the authors completed a case study of a preservice teacher and an inservice teacher during twelve weeks of student teaching.

Participants

The pool of participants included 29 mentor teachers in 1999-2000 and 37 in 2000-2001. Each year's participants completed a three-credit course offered during the summer and three follow-up workshop sessions during each school year. Fourteen inservice teachers and 12 preservice teachers participated in the differentiation study group in 1999-2000 and 12 inservice and 10 preservice teachers participated in 2000-2001. The study group met monthly and completed peer observations in the fall semester, and met in curriculum-writing workshops during the spring semester. Participants in the case study were both members of the 2000-2001 study group, although they had not been paired as “study buddies” (see Figure 1).

Participants in the Study

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<td>Mentor Teacher Training</td>
<td>29 Inservice Teachers</td>
<td>37 Inservice Teachers</td>
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<tr>
<td>Differentiation Study Group (DSG)</td>
<td>14 Inservice Teachers 12 Preservice Teachers</td>
<td>12 Inservice Teachers 10 Preservice Teachers</td>
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<td>Case Study</td>
<td>1 Inservice Teacher (DSG) 1 Preservice Teacher (DSG)</td>
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Data Analysis

Analysis of the qualitative data from the mentor teacher program and the differentiation study group involved categorizing evidence. This categorization identified patterns and themes related to inservice and preservice teacher perceptions about the effectiveness of their efforts to differentiate curriculum and instruction (Patton, 1990). Erickson's (1986) approach to interpretive analysis provided the framework for generating and testing assertions about the practice of differentiation in the case study of the inservice and preservice teacher. By evaluating data across the inservice groups (mentor teachers, differentiation study group members, and the case study participant) and preservice groups (differentiation study group and case study participant), it was possible to identify strengths and weaknesses in phases of professional development and pinpoint recommendations for refining program design and improving outcomes.

Results

Mentor Teachers

Survey results from mentor teachers called for continuing training in mentoring and coaching skills to support teacher retention. Mentors went beyond basic support for mentor training, however, and requested professional development in differentiating curriculum and instruction in order to better meet the needs of beginning teachers and preservice teachers in field experiences and student teaching. Mentor teacher responses indicated the following:

- Teachers wanted more focus in summer courses and academic-year workshops on how to meet the needs of academically diverse students. Instruction in differentiation was perceived as a need for mentors, beginning teachers, and preservice teachers.
Mentor teachers found videotaped examples of differentiation valuable in providing examples of theory in practice. They requested professional resources as well as videotaped examples of each other, with opportunities for discussion and reflection. Mentor teachers needed coverage in their classes to collaborate with beginning and preservice teachers in planning, peer observing, and reflecting on differentiated lessons. Mentor teachers asked for time to design differentiated curriculum and locate appropriate resources. Mentor teachers wanted more guidance on how to integrate assessment, standards, and differentiation.

Mentor teachers had begun to discover that in providing scaffolding for beginning and preservice teachers they could not ignore curriculum and instruction. In fact, mentors recognized that many of the management difficulties experienced by intern, preservice, and student teachers resulted from a lack of clarity in lesson design and minimal attention to meeting individual learner needs. While they acknowledged the importance of communication, listening, sharing resources and routines, and providing guidance in time and work management, an overwhelming number of mentor teachers indicated they needed assistance in diagnosing and planning for the varied needs of students (Walker, et. al., 2000).

Differentiation Study Group

Although the pairing of prospective teachers in the Teaching Methods course with an inservice "study buddy" in the differentiation study group had produced favorable results, survey results provided suggestions for improving the study group experience. Inservice teacher responses indicated the following:
Training in differentiation prior to their assignment as "study buddies" was seen as critically important. Inservice teachers felt uncomfortable being in "survival mode," learning differentiation along with preservice teachers while being expected to serve as mentors to them.

Teachers wanted more instruction in concept-based curriculum design and additional time with their "study buddies" to plan and reflect.

The teachers wanted more visual and written examples of differentiation across a range of grade levels and content areas, including music, art, and physical education. For visual examples they requested videotapes of "real" classrooms in addition to professionally filmed examples that were often seamless and appeared impossible to replicate.

Responses from preservice teachers were similar in many respects:

- Preservice teachers wanted more visual and written examples of differentiation. They wanted to see videotapes of each other and of local inservice teachers implementing differentiation.

- Preservice teachers were unclear about concept-based curriculum design, although the vast majority believed it was the best way to plan lessons and wanted more practice with design and delivery.

- Preservice teachers wanted more planning and reflection time with their "study buddies" during monthly meetings and in their field placements.

- Overwhelmingly, preservice teachers maintained that consistent modeling of exemplary differentiation in the Teaching Methods class, field experiences, and student teaching was essential for effective transfer of learning.
Survey results showed that time was a key factor in determining the success of the study group experience. Inservice teachers had to balance time for dialogue and reflection with their “study buddy” and the immediate demands of the classroom. The logistics of planning proved challenging as teachers’ schedules often changed unpredictably. In addition to more time, inservice teachers believed that basic competency in differentiation before participation in the study group would allow them to more effectively mentor preservice teachers. It was clear that the comfort level of the inservice teacher directly affected the subsequent quality of the preservice partner’s experience.

Case Study

Results of a case study conducted by one of the authors (Brimijoin, 2002) provided evidence for modifying both the mentor teacher training and the differentiation study group. Case study findings indicated the following:

- The student teacher’s experience with differentiation was limited to the Teaching Methods course in a context-free college classroom. While all her teacher preparation courses had involved fieldwork, the majority of her experiences had been with inservice teachers who had little or no background in differentiation. With limited models and opportunities to apply differentiation before student teaching, responsive teaching on a daily basis was a tremendous challenge for the student teacher.

- The clinical instructor’s coursework in differentiation and participation in the study group had enabled her to provide effective modeling and coaching, two elements that proved to be critical in supporting the student teacher’s attempts to differentiate.

- The clinical instructor and student teacher found that extended co-planning and co-teaching accelerated the student teacher’s success with differentiation.
When modifications or interventions were made in response to specific "cries for help," the student teacher was more likely to increase her competence and confidence in differentiating curriculum and instruction.

Since student teaching occurred in the spring semester, the student teacher missed the establishment of routines and procedures that created a learning community dedicated to differentiation at the beginning of the school year. Consequently, the student teacher had difficulties meshing her management system with the existing values of the learning community.

The clinical instructor was "reflectively adept" (Brimijoin, 2002) in that she modeled continual self-assessment and theory testing for the student teacher.

Case study results indicated that not being paired in the differentiation study group first semester might have been a missed opportunity for the two participants. Student teaching in a fully differentiated classroom where the students expected differentiated curriculum and instruction forced the maturation of the preservice teacher, fast-forwarding her through the traditional developmental stages of student teaching (Lidstone & Holingsworth, 1992). This forced maturation required specific and timely interventions by the clinical instructor to provide extra coaching, planning, and modeling in differentiation in response to the student teacher's requests for support (Fuller, 1969). The clinical instructor and student teacher believed that additional time together during the differentiation study group might have increased their competence and confidence, leading to greater success in their efforts to effectively differentiate curriculum and instruction.

Discussion

Results from mentor teacher surveys and reflections, differentiation study group data, and the case study of sample participants from the study group provided evidence to expand mentor
teacher training to include differentiation. In response to this evidence, the school division and college revised the scope of ongoing mentor teacher training supported by an additional grant from the Virginia Department of Education. The core of the revised training initiative was a three-credit course in differentiation. This course began with a three-day summer institute that included central office and school administrators whose training would enable them to mentor their own mentor teachers. College faculty and a central office administrator taught the course, modeling differentiation by pre-assessing participants and offering sessions based on readiness levels, interests, and/or learning profiles. While differentiating the course content, the instructors shared principles, strategies, and lesson prototypes for differentiating K-12 curriculum and mentoring beginning and preservice teachers.

Using the differentiation study group as a model, the new course included an action research element to provide the extended practice mentor teachers had requested. As part of their coursework in the two months following the summer institute, mentor teachers and administrators were paired to design, teach, and observe differentiated lessons. Once each semester the collaborators reconvened to share results of their action research in a guided reflection with the group, analyzing their success in differentiating.

Syllabi for teacher preparation courses at the college were revised to emphasize differentiation and concept-based curriculum design. College faculty modeled differentiated instruction while teaching the theory and principles of differentiation. Assignments for all but introductory field experiences were set up with trained mentor teachers whenever possible.

Mentor teachers completed the course in differentiation before the study group work began, giving them the experience they had requested in order to effectively mentor their preservice buddies. College faculty also redesigned "study buddy" assignments so that preservice teachers in the study group were paired, whenever possible, with mentor teachers who would
supervise their student teaching in the spring. This allowed preservice teachers to work with mentors trained in differentiation for their entire senior year.

Conclusions

The paper documents the linkage of mentoring and differentiation as connections among inservice and preservice teachers, administrators, and college faculty were forged in a learning community focused on meeting the diverse needs of today's students (Beasley, et. al., 1996). The learning community was strengthened after qualitative data suggested that mentor teachers would be more effective in supporting preservice and beginning teachers if they were able to model effective differentiation.

Survey and case study results of two phases of professional development indicated that mentoring beginning teachers involved much more than a warm welcome, familiarity with school handbooks, drop-in visits, and gift baskets. In fact, when faced with the challenges of diverse and inclusive classrooms, even veteran, mentor teachers admitted operating in the beginning stages of teacher development (Fessler, 1992; Lidstone & Hollingsworth, 1992). Qualitative data clearly indicated that professional development should be differentiated to fit the needs of all participants. The school-college partnership revised their professional development model to combine mentoring and differentiation in a reform-based approach that embraced mentoring, coaching, and a study group. This created a "sustained and intensive" effort, which Garet (2001, p. 935) suggested would most likely change practice. Preservice and inservice teacher experiences and evaluations suggested new dimensions for building expertise in mentoring and differentiation. The role of mentors transformed, as they added coaching in differentiation to the positive communication, resources, and general assistance they provided for novices, and preservice teachers were better prepared to meet the complex challenges of an increasingly diverse student population.
References


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