What the Known Demands:
Situated Knowing, Collaborative Inquiry, and Middle Level Teacher Education

By Cheryl Taylor Desmond & Barbara Senkowski Stengel

Since 1988, educators at Millersville University (MU) have been intentionally rethinking and gradually redesigning our undergraduate preparation of secondary education teachers. MU is a charter member of the Renaissance Group, a consortium of universities working for the reform of teacher education nationally while maintaining a four-year undergraduate program as a viable option. In addition to our efforts to improve programs within the guiding principles of the Renaissance Group, we have also participated in the Carnegie-funded Project 30 and Pennsylvania Re:Learning (Coalition of Essential Schools-linked) initiatives.

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In this article, we briefly describe the conceptual framework for the redesign of the secondary education program and then concentrate on changes in the student teaching semester that place a new emphasis on middle level education. In describing and analyzing this middle level student teaching experience named the Professional Development Practicum (PDP), we focus on "situated learning" and "collaborative inquiry" as key concepts grounding this facet of the teacher education program.

MU teacher candidates for Pennsylvania secondary certification, grades 7 through 12, complete a sequence of five to six professional education courses and student teaching in addition to a discipline-based academic concentration. Pennsylvania does not have a separate middle level certification but has an active Middle School Association that has strongly advocated the adoption of middle level practices in local school districts. At MU, we have consciously attempted to integrate middle-level principles into the preparation program for *all* secondary certification candidates.

The primary aim of secondary teacher preparation at MU is the development of teachers as inquirers who: (1) acknowledge themselves as an important source of generating knowledge about teaching and learning; and (2) are able to make responsive and responsible decisions about teaching and learning in classrooms. Throughout this development, our prospective teachers visit and revisit ten essential questions that give form and content to these two broad competencies:

1. What is a teacher? What do I bring to teaching?
2. How and why do humans learn? Is learning different for different humans?
3. What IS teaching? What can teachers do to enable learning?
4. What is my purpose in teaching? What do I hope to accomplish with my students? Are these worthy goals?
5. How do I (and others) know what we have accomplished? Are these worthy outcomes?
6. Why are there teachers? Why are there schools?
7. How do schools work? How did we get the schools we have?
8. Who decides what happens in schools and who benefits from schooling?
9. Is there educational work to be done outside of the classroom?
10. Am I capable of being a teacher?

We chose "essential questions" as the medium for focusing our program because of our Deweyan belief that inquiry (learning) begins when puzzlement is present. To state a curriculum in question form is to invite the student to learn with the instructor in responding to a real and complex question.

We chose *these* particular questions because they embody a constructively critical stance toward a public education system, taking nothing for granted while encouraging the social construction of a vision of the possible. The social construction of this vision of the possible is self-consciously encouraged through the structure of the program as well—in junior level teamed field experiences and collaborative "labs," and in the team approach to student teaching described below.

The capstone question "Am I capable of being a teacher?" confronts the individual student. Though asked and answered repeatedly throughout the program, this question can only be answered finally "Yes" by the student who has individually and collaboratively explored fully the previous nine. Student teaching is the capstone experience that, carefully crafted to encourage situated knowing and collaborative inquiry, encourages a fully conscious answer to the final question.

"Situated knowing" refers to the prospective teachers' constructed integration of the knowledge base of teaching and practice. Such knowing requires real students, teachers, and curriculum in a particular school context and shapes the "text" for inquiry by the student teacher who is situated in this classroom and context. The "known" of each student teacher's experience is the basis for the encompassing question: "What does the 'known' demand of me as a teacher?" (Greene, 1973, p.152). Knowing involves both thought and action and requires as well the availability of conceptual models and research-based knowledge from a variety of sources. The clearly concrete and the apparently abstract are integrated in the prospective teachers' goal-oriented actions, actions that are the *evidence* of decision-making capability as well as the *result* of the process of coming to know.

"Collaborative inquiry" implies that this constructed integration occurs most effectively when more than one person engages in shared questions and challenges. The questions and challenges are those that initially every person faces in the process of learning to teach. They arise in different detail for each person, however, shaped by the particular classroom that is the text for inquiry. The answers are, ultimately and paradoxically, personal, but the process is interpersonal.

Preparing for Student Teaching

Our redesign of the courses leading to student teaching includes an alignment of course content into two "blocs" exploring the above-mentioned essential questions from various perspectives: a foundations (social and psychological) bloc and a methods bloc. Integrated into both blocs are preservice field experiences designed to help the prospective teacher **ground** knowledge constructed within course work in the context of the school and classroom, and to **initiate** teaching and knowing of particular learners, classrooms, and schools. Both field experiences become **texts** for inquiry, individually and within the college classroom.

Students' initial field experience occurs during the first year of their professional preparation (typically the sophomore year in college) and focuses upon a tutorial relationship of teacher and learner in a multicultural, urban setting. The experience provides the prospective teacher, with practice, in a controlled one-on-one setting, with coming to **know the learner**, inquiring into his or her strengths and weaknesses, disabilities and abilities, interests and disinterests, within the social and cultural context of the school and society.

The second field experience focuses on the teacher as leader and facilitator of students' learning within the secondary classroom. A laboratory component is included in the bloc of methods courses that bridges thought and action, by utilizing simulations, case studies, micro-teaching, and other action-oriented pedagogical strategies while grounding student decision-making in the accepted knowledge base for teaching.

This developmentally-based redesign integrates the use of technological tools

and authentic assessment (particularly portfolio development) throughout the courses. Teacher educators attempt to model practices as they present them, engaging students in reflection on various strategies as they are experienced.

An additional one-credit pedagogy seminar has also been piloted and proposed as a program requirement. The pedagogy seminar is attached to a course in the candidate's major area of study and team-taught by the liberal arts instructor and a "pedagogy partner" who observes the class on a regular basis. The seminar focuses initially on the analysis of the teaching and learning in the major course, examining in detail the decisions of selection, sequencing, texts, methodology, assessment, etc., made by the instructor. The decision making of the course becomes the **text** for collaborative inquiry by students, the instructor, and the pedagogy partner during the weekly seminar. During the latter third of the semester, the focus shifts to the candidate's construction and transformation of that particular subject-matter knowledge for teaching with reference to middle level and high school students (Stengel, 1992).

By the time teacher candidates present themselves for the student teaching practicum, they have experienced both other-constructed and self-constructed knowledge about students, classrooms, schools, and subject-matter. That is, they have heard, pondered, and re-presented theoretical and research-based facets of the knowledge base. They have interacted with students in a variety of settings, reflected together on the meaning of those interactions, and shaped their own conclusions. This preparation has led them through single student-teacher interaction to class-teacher interaction based on a single subject matter. They are now ready to consider the challenge of multiple teachers and multiple subject matters with common student and common questions, *i.e.*, the reality of middle level education. Before explaining the practicum experience in detail, we review below the research and conceptual orientations that have contributed to our own thought and practice.

Building on the Conceptual Framework and Knowledge Base of Teaching

The student teaching experience has historically provided the opportunity for the most significant collaboration between universities and schools. The importance of this experience in the development of the preservice teacher has been well documented in the literature. Copeland (1980) and Zeichner (1986) have argued that the major influence on a student teacher's acquisition of skills is the culture of the school where student teaching occurs. The cultural context of the classroom and the school where the student teacher learns to teach and the institutional characteristics, learner characteristics, classroom conditions, cooperating teacher behaviors and methods, etc., strongly influence the nature of teacher development. Feiman-Nemser and Buchman (1983) contend that student teaching becomes an "experien-

tial, craft-oriented process" whereby the student teacher develops teaching strategies through the trial and error implementation of practices modeled by the cooperating teacher and relies very little upon the knowledge learned in teacher education classes.

The significance of the student teaching experience in the development of a teacher is revealed in studies that assess student teachers and experienced teachers' perceptions of the importance of the different aspects of their preparation programs. Both student teachers and experienced teachers regard student teaching as the most valuable aspect of their teacher preparation programs (Evertson, 1990). Our own research of Millersville University teacher education graduates confirmed these findings. In a 1992 assessment study of our programs, our graduates ranked student teaching as the most important experience of their entire program (Hughes, 1992, pp. 31-32).

However, the literature suggests that the strong influences of the cooperating teacher and the culture of the school-site often cause students to leave student teaching with more conservative and custodial attitudes (Hoy & Rees, 1977) and less confidence in the general efficacy of teaching (Hoy & Woolfolk, 1990) than they had before entering student teaching. Richardson-Koehler (1988) found that, within two weeks, student teachers discounted the pedagogical influence of their university instructors and attributed most of their practices to their cooperating teacher.

Goodlad (1990) also reported that few teacher education students talk about teachers as agents for change when they are questioned about the roles of teachers in schools. His research indicated that during the student teaching experience: (1) a student teacher's conceptual connections between the knowledge base of teaching acquired during university preparation and knowledge gained in school-based practice are weakened; and (2) a prospective teacher's predisposition to implement instructional reforms in future teaching is lessened.

On the other hand, studies such as Breenan and Simpson's (1993) have found that when student teachers or teaching interns worked side by side with experienced teachers to reform teaching practices in the school culture, the novice teachers learned to analyze the effects of their instruction and were less likely to adopt a traditional approach to teaching.

Research emerging from the study of the professional development schools nationwide underscores the importance of placing student teachers and interns in schools where innovative practices and reforms in teaching and learning are stressed. Beginning teachers are more likely to engage in innovative teaching if they work with experienced teachers who value and implement innovative practices. By facilitating the collaboration among all participants—teachers, university faculty, teacher education students, and administrators—the professional development school model is designed to encourage the application of research findings to instructional strategies in the school setting by experienced teachers working with

student teachers and interns. The provision of a relationship based upon the professional development school model provides the means to bolster both groups of teachers' efforts to reform the instructional practices of schools (Darling-Hammond, 1992).

As a result of these studies and our own observations of our student teachers, we wanted to design an experience where our student teachers would: (1) be active inquirers and knowers; (2) be able to make the connections between knowledge constructed in the college-classroom and the knowledge self-generated in school classrooms; (3) work within a collaborative community of teams of teachers who would support ongoing professional growth and reform; and (4) become responsible knowers and teachers of middle level children.

The conceptual framework for our design lay in what Cochran-Smith (1991) has termed a "collaborative resonance relationship" between school and university. A collaborative resonance relationship fosters the development of teachers who build cultures of teaching that, in turn, support ongoing professional growth and reform. Collaborative resonance links

> ...what students learn about teaching from their field-based school experiences with what they learn from their university experiences through mutually-constructed learning communities.... Programs based on collaborative resonance simultaneously aim to capitalize on the potency of the teaching culture to alter students' perspectives by creating or tapping into contexts that support student teachers' ongoing learning in the company of experienced teachers who are actively engaged in efforts to reform, research, or transform teaching. (p.109)

Described by Cochran-Smith and Lytle (1992) as "inside/outside" knowledge for teaching, this conceptualization of teaching emphasizes the critical role of teachers as knowers. Inside/outside knowledge rather than "outside/in" knowledge is an important

> ...juxtaposition that calls attention to teachers as knowers and to the complex and distinctly non-linear relationships of knowledge and teaching, as they are embedded in the contexts and the relations of power that structure the daily work of teachers and learners in both schools and universities. (p. 469)

In our program we want to foster the individual and collaborative inquiry of student teachers into their own practices and strengthen their efforts to reform middle level teaching across school sites and over time.

The **text** for their inquiry would be the middle level learners in their classrooms, the middle level curriculum, the middle school, and the team/s of teachers, student teachers, and teacher educator-supervisors with whom they worked.

As the research indicates, "outside" knowledge of best practices is not sufficient to support the student teacher's response to the demands of teaching. Individually and collaboratively, student teachers need to be able to reflect on and conceptualize the "known" of their learners, their team, the middle level curricu-

lum, and school, and to be able to interrelate this with the knowledge base of teaching.

Working with teachers and administrators from two middle schools, we designed the program in Fall 1993 and initiated it in these two sites the following semester. We agreed on the following conditions: All participants including student teachers, cooperating teachers, administrators, and teacher educators/supervisors would assess the practicum regularly each semester. The shape and structure of the practicum would be responsive to the specific needs of the school site as to scheduling, curriculum, teaming configurations, etc. Although the shape and structure may vary according to the site, we agreed that every practicum would include two elements:

1. *Collaborative Inquiry*: Small cohorts of two to four student teachers team with one university supervisor and with a school-based team of cooperating teachers who were implementing aspects of middle level reforms in accordance with *Turning Points* (National Middle School Association, 1982). The teaming of student teachers reduces the isolation of traditional student teaching where one student teacher teaches under one cooperating teacher. Each student teacher learns cooperatively with and is able to seek personal support from a group of peers and several cooperating teachers. The overall team works together to inquire collaboratively into the "known" of teaching through school-site meetings and university-site seminars. Student teachers complete guided documentation of the middle level learner, curriculum, management, instructional planning and teaching, and teaming through observations, dialogue journals, and videotapes of their own teaching. A video of a lesson with an accompanying plan is assessed by each student teacher individually and with the supervisor and is shared with the respective student teaching team as an opportunity to view the teaching of peers.

2. *Situated Knowing*: School-site and university seminars focus on individual and collaborative inquiry into the knowledge base of middle level teaching and on the student teacher-generated knowledge of the "known" of their teaching as documented in observation records, reflection journals, and videotapes. The seminars are led by the student teachers, experienced teachers, and teacher educators. They connect teaching-generated knowledge with the knowledge base of teaching and are designed to help student teachers construct meaningful integration of the two sources of knowledge, a process we have termed "situated knowing."

The themes framing the "situated knowing" of the student teachers include: (a) the characteristics and learning needs of middle level children; (b) the organization of middle schools; (c) instruction and management based upon the needs of middle school children; (d) the facilitation of teams and team planning; and (e) interdisciplinary planning and curriculum for middle school learners. We hypothesized that situating the "known" of their teaching experiences into the knowledge base of the

middle level at a time when they are working with middle level students and in a guided, experientially oriented, collaborative team process would reinforce the connection of the knowledge base to practice and strengthen the student teacher's commitment to reform.

Assessing and Adjusting the Practicum

We have completed three semesters of assessment of the Practicum using a Likert scale survey directed at the text of the seminars and an open response questionnaire that measures the "text" of the school based experience and the relationship with the university supervisor. Both forms are adaptations of an assessment form constructed for student teachers working in restructured classrooms along the principles of the Coalition of Essential Schools. The assessment instrument was reviewed and modified by the design team and the university instructors participating in the first semester of the Practicum. Student teachers anonymously complete the survey and questionnaire; cooperating teachers and school principals anonymously complete the questionnaire. Student teachers also participate in a final review of the Practicum at a closing seminar where they collaboratively assess the semester through written narration to guided questions. A school team of student teachers or a combined team of smaller school teams join with an university supervisor who worked with another team to answer the questions of the narrative reflection. All university instructors and supervisors also meet at the close of the semester to respond to similar questions.

After three semesters, 62 student teachers have completed the Practicum in eight middle schools in five different school districts. Student teachers who participate in the Practicum have expressed their preference for middle level teaching rather than the high school level on questionnaires completed by all MU student teachers prior to their experience. The teams of cooperating teachers in the participating school districts are first contacted by the Field Services Office, attend a meeting on the Practicum, and select to participate in the Practicum.

The assessment has investigated three topics:

(1) The mechanics of the Practicum. This includes the organization and scheduling of the experience as well as the structure of the teams.

(2) The collaborative inquiry of the Practicum including the teaming of the student teachers and their collaborative inquiry, the content of the seminars, the relationships with the school team and the supervisor.

(3) The student teacher's future commitment to the use of middle level practices and instructional reforms.

As a result of this ongoing assessment, we have adjusted several aspects of the Practicum as noted below.

The Mechanics of the Practicum

The majority of recommendations from cooperating teachers have been directed at this area. Throughout the three semesters, student teachers' time away from their classrooms for site-based or university seminars, between three to six per semester, continued to be a concern for a small but consistent number of cooperating teachers. Since the traditional secondary program does not include these additional seminars, they recommended that seminars be held after school or on Saturdays. Although we have modified the scheduling of these seminars to accommodate recommendations by participating schools, we have continued to emphasize the importance of these seminars as an opportunity for student teachers to generate and share knowledge, to connect self-generated knowledge to the knowledge base of teaching, and to reflect upon their teaching and have compared them to teachers' own team planning periods and inservice days.

Of the 62 questionnaires completed by cooperating teachers, only three stated that having a team of three to four student teachers with a team of four to five cooperating teachers was too many novice teachers for one team of middle school students. This was an initial concern of the planning team for the Practicum. One team of teachers suggested that the solo teaching of the student teachers be sequenced so the students do not have more than two student teachers teaching in a school day. Having a small team of two student teachers working with a larger team of cooperating teachers also has alleviated this concern. One administrator indicated that the concern is in response to parental concerns.

We have not encountered this concern in a team approach to student teaching we have developed at the high school level. Since 1991, we have been pairing full teams of student teachers with teams of cooperating teachers throughout the school year in the restructured tenth grade of a large urban high school whose curriculum is based upon some of the principles of the Coalition of Essential Schools. These teaching teams have maintained that implementing the role of teacher as "coach" and the needs of urban students have made full teams of student teachers a welcomed necessity.

We also received unanticipated, informal assessments of the Practicum. We learned each semester that communications with the cooperating teachers and schools who had not been directly involved in the design of the Practicum had to be frequent and clearly stated. The teacher educator/supervisor who works with a team is a critical factor in keeping lines of communication open and positive.

Collaborative Inquiry and Situated Knowing

All student teachers, administrators, and supervisors and 95 percent of the cooperating teachers have consistently given very high ratings to the effects of student teacher teams upon the student teachers, the teachers, and the middle level students. The strongest responses have come from the student teachers:

> I thought it was fantastic. My group members were cooperative and it helped when making first time decisions. It made it easier to discuss this with my team members. We met often and have become friends, I think. We are able to talk about many things and discuss a problem as a group. It made the student teaching experience much easier.
>
> Student teaching with a team of student teachers has advantages that greatly outweigh any disadvantages. Having someone so close to your experience, same kids, same schedule, same problems, etc., provided an outlet for venting and help in solving problems.

Cooperating teachers also expressed the value of teaming for the student teachers and for their own team of teachers:

> The student teachers were an integral and highly valued part of our team.
>
> The PDP was most useful in allowing student teachers to work together as a team. We gave them a considerable amount of autonomy and responsibility, and they responded very positively.

In their evaluation of the seminars, student teachers in all three semesters rated most highly those seminars that were directly related to their needs in classroom teaching, such as the characteristics of the middle school learner and the middle school, classroom management for the middle level, middle level instructional planning, teaming, and interdisciplinary curriculum and instruction. We can conclude that student teachers valued most highly the situated knowing that was most explicitly related to their daily experience. Using student teachers' generated knowledge through journals, observations, and videotapes of classroom teaching and learning in the seminars is a highly effective means of constructing the connection to the knowledge base of teaching. The collaborative process of inquiry on these topics values the experience and reflection of the student teacher and illustrates the usefulness of the research, conceptual frameworks, and guided reflection generated by the university supervisor or instructor.

For example, student teachers responded in the following ways:

> The seminars were a helpful way to reflect on our experience and share with others' experiencing similar adventures in the middle school teams.
>
> Definitely. I understand the middle school concept and the middle school student more deeply now.
>
> Yes, the seminars provided, what I thought was, essential background information about middle schools. I found that I utilized much of this information during my student teaching experience.

As a result of the assessments, modifications were made to the content of the seminars and the process or tools for collaborative inquiry. During the first two semesters, we used the Meyers-Briggs Personality Inventory to help student

teachers assess their own personality types and the implications of these types for teaming. Several had completed the inventory previously, and many did not find it a useful tool in assessing team roles. Student teachers also requested that a seminar on the inclusion of exceptional children in the regular classroom and instructional modifications be shifted to the pedagogy courses that preceded student teaching. Both student teachers and cooperating teachers had firm expectations that the time spent in the seminars be wisely used and not wasted. Many expressed the importance of time taken away from their classrooms and the need for well-structured seminars that were heavy with content on the middle level and interdisciplinary curriculum.

The evaluation of the videotaping of a lesson to share with one's team of student teachers was mixed during the first semester due to our poor planning in regard to the availability of videocameras and the scheduling of the review of the tapes. These problems were corrected in the following semesters. With the exception of one cooperating teacher who concluded erroneously that the videotaping was used by student teachers to critique each other's teaching, all other cooperating teachers and student teachers evaluated this as a very effective means of sharing each other's teaching of the same middle level children and of generating knowledge individually about one's teaching with the student teacher's teacher educator/supervisor. The video vignettes also provided a means of cooperative learning on instructional planning and classroom management for all members of the team. Some student teachers completed additional taping of their teaching for their own assessment.

Although we continue to modify aspects of the Practicum with the ongoing assessment by student teachers and cooperating teachers, evaluations to date have strongly reinforced the use of collaborative inquiry and situated knowing as conceptual guides for middle level teacher education. Team planning and teaching an interdisciplinary curriculum while actively constructing knowledge of the middle level student and context strengthened the connection of the knowledge base of middle level teaching to practice.

Commitment to Middle Level Practices and Instructional Reforms

Student teaching commitment to the use of middle level practices such as teaming and the implementation of instructional reforms such as interdisciplinary curriculum was as high or higher at the end of the semester for 57 of the student teachers assessed. This data was analyzed through the rating scale or through the coding of the response statements in the questionnaire. Of the remaining five student teachers, four had concluded that they did not want to seek a teaching job at the middle level, and one concluded that he did not want to teach in the public secondary schools at all. Although the Practicum experience of student teachers working with teachers who are engaged in instructional reform enhanced or reinforced the commitment to instructional reform and middle level practices of a

substantial percentage of student teachers, further study is necessary to determine the contribution of these two effects and the longevity of this commitment when the novice teacher begins teaching in a different school context.

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