

Inquiring Minds Want to Know: Building Pre-Service Teachers' Skills Through an Inquiry-Based Practicum

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Working with young adolescents is one of the most invigorating, exciting and demanding choices for budding educators. Enabling pre-service teachers to meet the challenges of working with a population in the midst of wondrous and confusing changes requires programs specially designed to provide background information, experiences, and practical skills to help them succeed (McEwin & Dickinson, 1997; Scales, 1992; Scales & McEwin, 1994). In this article, I describe an inquiry-based practicum that is part of a pre-service teacher education program at (masked University Name) designed for elementary or secondary education majors who are interested in teaching middle school. The program was designed to meet established guidelines for middle level education (National Middle School Association, 2001; Interstate New Teacher Assessment and Support Consortium, 1992) and includes a thorough study of the nature and needs of young adolescents and middle grades curriculum and instruction, as well as an interdisciplinary major, specialized methods courses and early and continuing experiences in middle schools.

Why an Inquiry-Based Approach?

The inquiry-based practicum was created to give students the opportunity to engage in a teaching and learning method that few of them have experienced. Because the “apprenticeship of observation” (Lortie, 1975) is such a powerful influence on how new teachers will teach, using this strategy with pre-service teachers is critical if we want them to employ it in their future classrooms.

The inquiry project is also an example of how to create curriculum that is student-centered and relevant. Because our students read about the possibilities of this approach during their introduction to middle schools course readings (for example McDonough, 1991), this gives them an opportunity to see such an approach in action. Further, this approach prepares students to engage in future action research (Martin-Kniep, 2000) and helps to establish the skills they will need to become reflective practitioners who can identify important questions, gather and analyze data and make decisions about their teaching.

The inquiry focus of the practicum is also designed to meet the following essential NMSA (2001) standards:

Standard 3: Middle level teacher candidates understand the major concepts, principles, theories, standards, and research related to middle level curriculum and assessment, and they use this knowledge in their practice. Indicator Six – Know how to incorporate all young adolescents’ ideas, interests, and experiences into curriculum.

Standard 5: Middle level teacher candidates understand and use the major concepts, principles, theories, and research related to effective instruction and assessment, and they employ a variety of strategies for a developmentally appropriate climate to meet the varying abilities and learning styles of all young adolescents. Indicator One - Understand the principles of instruction and the research base that supports them. Indicator Two – Know a wide variety of

teaching, learning, and assessment strategies, and when to implement them. Indicator Five – Understand ways to teach the basic concepts and skills of inquiry and communication.

Standard 7: Middle level teacher candidates understand the complexity of teaching young adolescents, and they engage in practices and behaviors that develop their competence as professionals. Indicator One: Understand their evolving role as middle level education professionals.

Program Context

We offer a series of specialized courses that leads to a state-recognized endorsement in middle level education. These courses include an introduction to middle schools class, a middle school curriculum and instruction class, the inquiry-based practicum and an optional service-learning practicum and seminar. On the first day of the introductory course students brainstorm a list of questions they would like to answer about schools, students, teaching, and curriculum. These questions help to shape our discussions and field experiences, and set the stage for the inquiry-based practicum. Following the introductory course, students register concurrently for the curriculum and instruction course and intensive practicum. In the curriculum course, students learn the fundamentals of lesson and unit planning and instructional strategies, and complete an interdisciplinary team-designed curriculum plan.

The Inquiry-Based Practicum Approach

The three-credit practicum course is designed to provide an early field experience and help students assess their interest in teaching this age group. In addition, students complete an inquiry project for which they define a question then gather and analyze data. The major goals of the course include: 1) observing and reflecting on instruction in middle schools; 2) teaching both small and large groups in

the classroom; 3) completing a research project designed to help students learn more about middle schools; and 4) thoroughly assessing the desire to work with early adolescents. The students meet weekly in a seminar class to share practicum experiences and define their research project.

The 40-hour field experience frames the course. Students are assigned to one or more carefully selected teachers according to students' anticipated areas of endorsement. To reinforce elements of reflective practice, students are required to keep a weekly reflective observation journal and to respond to log questions posed in the text (Posner, 1996). Each week, both the journal and the chapter questions focus on a different theme such as "first impressions," "teachers," or "students." In their journals, students follow an ethnographic format of recording observations in one column, and raising questions or posing interpretations in an adjacent column. To synthesize observations and reflections, students meet on campus with the practicum supervisor one hour per week to discuss contentious issues raised by each week's theme.

The central element of the intensive practicum course is a student-designed inquiry project. Facilitating such an approach in a once per week seminar in a 10-week quarter system is a challenge, but the following step-by-step process has been successful. During the first session of the seminar, an overview to the inquiry learning cycle is provided (Henderson, 2001; Martinello & Cook, 2000) To begin their own process of inquiry, students first reflect on questions they examined during the introductory course and then brainstorm possible inquiry topics about life in middle schools. The topics typically range from questions about students and parents to those about teachers, curriculum, classroom management and a wide range of middle school approaches. Students write their questions down on prepared "question cards" and present them to one another during class. As they present, they elaborate on topics of interest and together they create a concept web, with categories

generated and labeled by students. The questions are collected by the instructor, typed up, and emailed to the class. In addition, they then review the lists of potential research topics provided by the instructor that are drawn from *A 21st Century Research Agenda* (National Middle School Association, 1997). Students are asked to return to class the following week with their five top questions.

During the second class session, a quick sharing of students' top questions is presented to determine the range of issues of interest. This typically narrows our list to 3-5 major topic areas. Students are then asked to locate, read, and bring in a scholarly article on their top topic choice for the next class session. At the third meeting, we discuss the strengths and weaknesses of whole-class and small-group inquiry, and determine if one or more topics will be pursued, and which topics will be the focus.

Once a topic is determined, students pose further questions to explore before finally choosing a central question for the inquiry project. Because the question choice determines, to some extent, the methodology of the inquiry, that, too, is discussed until the class reaches consensus on the approach to be taken. Student cohorts have used open-ended questionnaires, interviews, and surveys to gather data for their inquiry projects.

Once the project is defined, students take charge to organize task assignments, establish timelines, determine the particulars of the research script, data collection forms, and data tabulation through a dynamic group process in which the instructor is involved as both group member and leader. They are also asked to each locate an additional four scholarly articles about the chosen topic. Data collection is facilitated at the practicum schools and students are required to include at least two stakeholders in their sample. This gives students a clear focus and encourages them to interact with a wide range of people in schools, including students, teachers, counselors and parents.

While encouraging student ownership of the inquiry project, the seminar leader retains an important role in working with students.

The instructor must assist in establishing the criteria to ensure students pose a "good" question, and provide enough information about research methods and background sources of information about each topic to ensure that the students' study will be meaningful. By the end of the quarter, students are required to tabulate their data set and write an interpretive report which is submitted for a grade.

In the five years we have used this approach, student groups have successfully defined interesting questions and approaches to data gathering. Two groups have presented their inquiry projects at National Middle School Association conferences (Harwood, Everhart, Moon, & Pruss, 2001; Harwood, Brimer, Bouma, Frazier, Madsen, Steinkamp, & Zaccheo, 1999) and a third presented at a state-level conference. Participation in professional conferences helps students see how they can contribute to the profession, and brings them in contact with an inspiring range of people and ideas.

In the inquiry-based practicum, students are motivated by choosing their own topics, and they learn a lot about the research process in addition to learning about schools and the people who inhabit them. For some of our students this field experience proves to be the pivotal point in their decision to pursue a career at the middle level. Those who were questioning their decision will either find it confirmed or rejected by this experience. And for most students, the course ignites their excitement to pursue other experiences with middle-level students.

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