This paper describes a student teacher's experience in a school-university partnership and investigates the converging influences of the school and the university on the student teacher. The study examined the experience of a student teacher in the Puget Sound Professional Development Center Middle School Preservice Teacher Education Program, a fifth year program built around an interdisciplinary core seminar, field experience, and on-site supervision. Sara, a nontraditional teacher education student in her late 30s, was the principal informant for the study. The coursework for the program, as well as details of Sara's student teaching placement, are outlined. Several excerpts from her journal are included, as well as descriptions of lesson plans and transcripts of discussions between Sara and her cooperating teacher. The study identifies the benefits of a field experience in the context of a school-university partnership, including: experience for students with a variety of educational practices; gradual enlargement of the field experience, from cross-site visits to part-time student teaching, and finally to full-time student teaching; careful matching of student teachers with cooperating teachers; on-site supervisors; and cohort support in the school to ease the transition from campus to the school. However, there seemed to be a one-way influence from the campus to the school in terms of new teaching strategies. Although the cooperating teacher provided a laboratory for the student teacher to experiment, she did not challenge Sara to be more conscious of the underlying assumptions of new teaching strategies and thus encourage more reflective teaching. The findings suggest several areas for further study including: ways to better integrate course work and internship; ways to expand the cooperating teacher's role to include criticism; and ways to develop more inquiring attitudes toward new teaching strategies. (Contains 22 references.) (ND)
Student Teaching in the Context of a School-University Partnership: An Ethnography of a Student Teacher

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(abstract)

A literature review of student teaching before conducting this research reveals that studies of student teaching come to quite different conclusions. This is due to the fact that the contexts and contents of student teaching have been neglected. The purpose of this paper is to contextualize a student teacher's experience in a school-university partnership and to find out the converging influences of the school and the university on a student teacher.
Student Teaching in the Context of a School-University Partnership: An Ethnography of a Student Teacher

Student teaching is perceived by both teacher educators and teacher education students as the most influential component of the teacher education program (Goodlad, 1990; Su, 1990). There is perhaps more research on student teaching than on any other topics pertaining to teacher education (Lanier & Little, 1986). Among the large body of research literature on student teaching, some research focuses on the impact of student teaching on student teachers in terms of their pupil-control orientations, attitudes toward teaching, beliefs in teaching, and so on. Along the line of this group of research, there are quite different research findings. Some researchers concluded that student teachers become more authoritarian, rigid, impersonal, bureaucratic, and custodial after student teaching (e.g., Copeland, 1980; Glassberg & Sprinthall, 1980; Jones, 1982; Emans, 1983; Packard, 1988). Some inquirers reported that student teachers become more liberal and confident (Zeichner & Grant, 1981; Tabachnick & Zeichner, 1984). Still other scholars denied the impact of student teaching, sometimes even the impact of the whole professional preparation (Lortie, 1975; Arnstine, 1979).

However, as Zeichner (1986, p. 5) observed, "Studies of the role of student teaching in learning to teach, by any account, have not provided us with much information that is useful for policy decisions related to student teaching programs." Zeichner's argument was that the failure of studies to attend to the complex, dynamic, and multidimensional reality of student teaching --- the ecology of student teaching --- is a major reason for the unsatisfactory state of our knowledge base related to the influence of student teaching on the process of learning to teach.
He concluded that the lack of attention to the contents and contexts of student teaching have been two of the most serious flaws in the research on student teachers.

Nine years have passed since Zeichner made his comments in 1986. This period of time witnessed the rapid development of more literature on the impact of field experience on student teachers. Nevertheless, the problem pointed out by Zeichner remains. For example, Hoy and Woolfolk’s experimental study (1990) concluded that student teachers became significantly more custodial in pupil-control orientation, and they became less confident that they could overcome the limitation of their students' home environment and family background. However, student teachers' sense of personal teaching efficacy improved as their sense of general teaching efficacy declined. MacKinnon’s study (1989) depicted a similar picture. He found that compliance was, in the eyes of the four student teachers he studied, a taken-for-granted part of being an outsider in someone else’s classroom. "Living with conformity" was a fact of life for the student teachers in the eight-week practicum.

It is interesting that Cochran-Smith (1991) reported a dramatically different student teaching experience. She found that there was a powerful way for student teachers to learn to reform teaching, or what she referred to as “teaching against the grain.” By placing student teachers in the company of experienced teachers who are themselves struggling to be reformers in their own classrooms and schools, student teachers learn to 1) rethink the language of teaching --- a collaborative process of uncovering the values and assumptions implicit in the educational language, 2) pose problems of practice, 3) construct curriculum, and 4) confront the dilemmas of teaching --- a process of identifying and wrestling with educational issues that are characterized by equally strong but incompatible and competing claims to justice.
It is clear that Cochran-Smith's research findings are diametrically different from Hoy and Woolfolk's and MacKinnon's -- one is a promising picture of learning to teach against the grain, the other is a miserable one of student teacher's conformity to their cooperating teachers and the status quo in the teaching environment and becoming more conservative after student teaching. The reason that they came to different conclusions is that their studies were conducted in different contexts. However, the nature of the contexts in which these studies were carried out is not clear, except that in Cochran-Smith's study student teachers were placed with reform-oriented experienced teachers. Although these studies, without being situated in specific contexts, are constructive in terms of illustrating possible images of student teaching, they cannot inform policy decisions because they do not pinpoint the contexts and contents of student teaching. For example, Hoy and Woolfolk's study begs the questions about in which context student teachers become more conservative after experiencing student teaching, and what are the activities in the student teaching experience which make them so. The same scrutiny can be applied to many other studies on student teaching.

An ecological understanding of student teaching is needed in order to improve the practice of student teaching. A typology of the impact of student teaching, which correlates the effects of student teaching with various contexts and contents, should be developed. Our understanding of student teaching will become accumulative by gradually developing this typology.

This study intended to contribute to this typology by exploring a student teachers' field experience in the context of a school-university partnership. The study reported here employed an ethnographic methodology in order to expose the contexts and contents of this student teacher's field experience. This study focused on the experience of a student teacher. The primary data sources include three interviews with the student teacher, observation of her work in the school and two
method classes on the campus, and almost all of her writings for the teacher education program. The interviews and the lesson plan periods between the student teacher and the cooperating teacher were audio-taped and transcribed verbatim. This paper first contextualizes the informant’s field experience, then proceeds to illustrate some features of her student teaching experience, and finally reflects upon her experience.

**PDC Program: An Innovative Preservice Teacher Education Program**

There has been a professional development school (PDS) movement since mid-1980s. PDSs are “teaching schools” which are an analogy to “teaching hospitals” in medicine. They are established to improve the education of prospective and practicing teachers, to strengthen knowledge and practice in teaching, and to strengthen the profession of teaching by serving as models of promising and productive programs for student teaching (Schlechty et al., 1988; Abdalhaqq, 1989).

In 1988, Puget Sound Professional Development Center (PSPDC, also known as PDC) was created as an outcome of a grant from the Ford Foundation. PSPDC is a consortium of the University of Washington, four middle schools in Seattle area, and the Washington Office of the Superintendent of Public Instruction. One of the goals of PSPDC was to pilot a middle school preservice teacher education program through the College of Education at the University of Washington that would include three major innovations (Grossman & McDaniel, 1990):

* A core seminar on teaching and learning in middle schools, team taught by university professors and middle school teachers, and integrating core classes taught in the regular teacher education program.
The PDC Middle School Preservice Teacher Education Program is a fifth year program, which enrolled a small cohort of 12, 14, 15 for the academic years of 1990-91, 1991-92, and 1992-93 respectively. In contrast to the regular teacher education program, the PDC Middle School Preservice Teacher Education Program has its characteristics on the following three aspects (Yerian & Grossman, 1993):

**Core Seminar.** Four required courses in curriculum and instruction, educational psychology, and educational leadership and policy studies were replaced by a block of courses aimed at middle level preparation of teachers and taught by an interdisciplinary team of from three to five professors (representing the areas of curriculum and instruction, educational psychology, educational leadership and policy studies, and special education), a middle school teacher, and a graduate assistant who also served as a cross-site supervisor. In the fall quarter, when the students were at the university nearly full time, the seminar met twice a week. As the year progressed and the students became more involved with their teaching responsibilities at their school sites, the time commitment to the seminar was reduced. By the third quarter, the seminar format consisted of problem solving sessions in which student teachers would discuss their day-to-day teaching concerns, contributing their experiences across school sites.

The core seminar for the fall quarter emphasized teaching and learning at the middle level through methods such as observation of school experiences, journals of personal reflections, case studies, and lesson plans. When specific topics such as cooperative learning and site-based management were discussed in the seminar, teacher leaders from the schools were invited to the seminar to contribute their
expertise. Throughout the year, two themes were emphasized: First, early adolescent development and middle level education, and second, the integration of special education concerns into lesson planning through the participation of a special education faculty member.

As the students’ time in the field progressively increased from the fall through the winter and spring quarters, the seminar emphasis changed to school-based issues and unit planning. Panel discussions were held in which middle school teachers, principals, a school board member, a representative of the Washington Education Association, a specialist in compensatory education, a professor of school finance, and a researcher on equity and excellence debated current issues affecting middle level education. Each student wrote a case study of a special education student, and participated in developing unit plans within interdisciplinary teams. In addition to the core seminar, the PDC students attended subject-specific methods courses with students from the regular teacher education program.

Field Experience. The four middle schools in the PSPDC, representing four school districts in Seattle area, provided the field sites for most of the PDC students. In a few cases, students with special certification emphases, such as English as a Second Language, were placed in non-PDC schools to gain the necessary experience for the certificate. Each student was placed with a cooperating teacher or a teaching team. Planning for the field experience involved the site supervisors, the cooperating teachers, and the seminar teaching team. The school-based members of the planning team coordinated the curriculum activities of the student teachers at the school sites and arranged for the cross-site school visits that occurred during the year. Periodically, the cooperating teachers would meet with the teaching team to discuss seminar and field related issues.
On-site supervision. In a departure from the traditional method of university based supervision in which one supervisor evaluates a large number of students at various school sites, the site supervisor at each PDC school site was responsible for supervising a group of two to four students who had been placed at that school. Communication among the student teacher, the cooperating teacher, and the site supervisor was facilitated by their informal day-to-day contact, and through formal weekly meeting, between the student teacher and the site supervisor. In addition, the site supervisors were responsible for finding alternative placements when the original placement failed. Site supervisors met monthly with the teaching team to plan the curriculum and to share information about supervision.

The Student Teacher, the Cooperating Teacher, and the School

Sara, in her late 30s, was the principal informant for this study. She was a non-traditional teacher education student, who had spent ten years in marketing, training employees in product knowledge and sales strategies, and five years as an assistant for a government environmental research project, developing standard operation procedure for chemical processing. Sara went back to a community college three years ago, and she would receive her bachelor of arts in English in August 1993.

Sara was one of a cohort of fifteen who were admitted to the PDC Middle School Preservice Teacher Education Program for the 1992-93 academic year. However, she started her coursework for the teacher education program in Summer 1992. Her coursework for the PDC Middle School Preservice Teacher Education Program is as follows:
As it was mentioned in the previous section on field experience, the PDC core seminar gradually led students from the university to the school. When this study was conducted, Sara was a part-time student teacher in the Seattle Middle School, one of the four PDSs in PSPDC.

Sara, among other things, was teaching the social studies/language arts block to the mainstreamed seventh graders. She taught eight to ten periods a week. Her cooperating teacher, Tina (Sara, “S” for student; Tina, “T” for teacher), was a middle-aged lady who was a two-thirds teacher in the Seattle Middle School. Sara perceived that she had a good relationship with her cooperating teacher, and claimed that they had the same philosophy of teaching.

Two other persons with whom Sara had frequent contacts in the school were the site supervisor and Steve, one of Sara’s classmates in the PDC Middle School Preservice Teacher Education Program. The site supervisor had a weekly meeting with the PDC interns. She also coordinated the student teaching, conducted a final evaluation of student teachers, and made recommendations for licensing. Sara often exchanged experience with Steve who had the same experience as Sara. They helped each other emotionally and practiced team-teaching.
The Seattle Middle School is a racially heterogeneous school in a large suburban school district. Of the 517 students enrolled in August 1992, 72% were Caucasian, 18% Asian, 6% black, and 2% Hispanic. It had been a professional development school for six years. More than 80% of the faculty supported the school’s involvement in the PDC Middle School Preservice Teacher Education Program. A previous study conducted by this author (Shen, 1993) revealed that the school teacher’s vision of preservice teacher education in the PDS context was comprised of the following elements: Student teachers’ field experience should be a year-long experience; student teachers responsibilities should be gradually enlarged, moving from coursework on campus to taking over a classroom completely; student teachers should be matched with cooperating teachers; there should be a site-supervisor responsible for coordinating and evaluating student teaching; student teachers should move beyond classroom teaching and become involved in all the work which teaching entails; student teaching should work with a team of teachers and transcend student teachers’ preconception regarding teaching; and student teaching should take place in the context of a school-university partnership. These faculty’s vision of preservice teacher education in the context of professional development school is largely focused on socialization of student teachers.

Sara’s Early Field Experience: Cross-site Visits

The traditional method of field experience is to place, usually at the end of the program, a teacher education student with a cooperating teacher in a school. One of the shortcomings of the traditional way is that student teachers have limited field experience due to the fact that they are exposed to only one way of teaching. This narrows student teachers’ horizons and becomes an impediment for their further professional development. The other shortcoming is that there is not a smooth
transition from the campus to the school; all the field work is crammed in the last two months.

The structure of the PSPDC provides student teachers with the opportunity to visit sites other than the site in which they are student teaching. While taking the PDC Core Seminar on Teaching in Autumn 1992, Sara was engaged in cross-site visits, and she wrote her reflection entitled "A case of similar objectives or there is more than one way to achieve a goal." What follows are excerpts from her article:

One thing is clear about both College Place [a middle school in PSPDC] and [the Seattle Middle School]. Both middle schools are meeting students' needs. What was enlightening was that they had different ways of doing it.... I was very interested in their [College Place Middle School] grading system. Students were all able to achieve B's or more through re-testing or negotiation. In line with middle school philosophy, this allows all students to succeed and allows them to learn from their errors. I was impressed with the diversity of the electives. Students were given a wide variety of choices from Quest and Journalism (with a TV studio) to Computer Labs. What excited me most was the use of technology ... integrating real world technology into curriculum.

I enjoyed this exercise [cross-site visit] and I found it to be a learning experience. It gave me a base for comparing and contrasting many theories of middle school philosophy. It reinforces life's lesson that there is no one right way and the value of diversity. I also find it very valuable to see as many methods of theory in action as possible. This creates a greater data base within myself to draw from in the real world of teaching. Methods that are presented visually and authentically are more likely to be conceptualized in my mind. Now, I have a strong desire to see the other schools in our program.

I enjoyed doing our cross site visits as part of a larger group. It was the first opportunity to get to talk to other interns outside the seminar besides those assigned to our schools. A comradery was created that has gotten stronger in time. We found similarities and compassion in our concerns and strength and quality in our differences. Along with that and meeting professionals from other schools, I found that this project had broadened my educational community base.
It is apparent from Sara’s reflection that she came to realize that there were more ways of educating children well. The experience of cross-site visits allowed Sara to move beyond what Lortie (1975) characterized as “apprenticeship of observation” — teaching in the same way as what student teachers learned by observing their own teachers when moving through the educational ladder. College Place Middle School’s grading system was not a part of Sara’s educational thoughts when she visited the school. She was impressed by this practice. Later, this grading system became a part of her philosophy of teaching. When she responded to the question of her philosophy of teaching during an interview with this author, she observed that “I also believe in correcting errors. All students should have A’s by correcting what they’ve done, because there’s value in learning from your mistakes.” Through activities such as cross-site visit, Sara became identified with a more diversified culture of teaching.

Cross-site visits also provided Sara with the opportunity to share with her counterparts in the teacher education program. The membership in the cohort group, or “comradery” in Sara’s own word, helped her become socialized into the culture of teaching.

**Part-time Teaching Experience**

Sara began part-time student teaching in winter 1992, i.e., the second quarter of the teacher education program. During the second quarter, she observed many classes taught by different teachers and became an assistant for her present cooperating teacher, Tina.

This study took place during the third quarter of her teacher education program. Most of her work in the school involved teaching the social studies/language arts block to the mainstreamed seventh graders. In addition to
this, she also worked on a teaching team for the gifted. By the time when Sara was
in her third quarter, she was spending more time in the school than on the
university campus. She was taking a social studies method course and a science
method course on Monday and Wednesday mornings, and Physical Education and
Health in Schools on Saturdays; the rest of time, she worked as an intern in the
school. The following are some snapshots to illustrate Sara’s teaching experiences.

Russia: A Nine-Week Unit. Sara designed and carried out a nine-week unit
on Russia’s history and geography by employing a teaching strategy named “jigsaw.”
Students were divided into six home groups, each home group consisting of four or
five students. For each task, such as studying Russia’s history, students within a
home group decided who would study leadership evolution, domestic policies,
foreign policies, literature and art, and so on. The students who studied the same
topic formed an expert group. After doing some research work as an expert group,
these experts on, say, Russian foreign policies returned to their home groups to
share what they had learned in the expert group with their friends in home groups.
Each member in the home group would share what they had learned in different
expert groups.

The final product for each home group was to build a timeline of the
evolution of leadership in Russia and marked the corresponding foreign policies,
domestic policies, literature and art on the timeline. In the process of building the
timeline, all members in the home group contributed their understanding. Each
student in the home group had a part of the puzzle; the puzzle would not come
together if a part of it was missing.

Since this was a social studies class, Sara employed the jigsaw strategy not
only to teach Russian history but Russian geography as well. Students were actively
engaged in activities. They compiled figures and drew pictures to illustrate Russia’s
natural resources and climate. Four weeks into the nine-week unit, the class held a
conference to report to their parents what they had learned regarding Russia. The conference was successful according to Sara and Tina.

Snapshot Biography. Since Sara was also teaching language arts to the same group, she integrated the social studies class with the language arts class. At the end of the sub-unit on Russian history, Sara taught students how to write a snapshot biography of one of the Russian leaders. Students were again divided into groups. Each group first decided on whose biography they would write. Then, the group discussed the features of this person’s life. These features became chapters in the biography and each student wrote a chapter. After working on the table of contents and an introduction, and asking somebody else to write a foreword, each group produced a biography collectively. Each group of students then shared their biography with other groups. By engaging in snapshot biography, students not only acquired knowledge of a historical figure, but learned how to write as well.

Lesson Plan Period. Sara and Tina had about four lesson plan periods each week. The lesson plan periods, lasting 35-50 minutes, were between 11:30 to 1:30, depending on the daily schedules. The lesson plan period was the time for Sara and Tina sat down and prepared for the coming days. Each time Sara prepared her lesson plan well. She first talked about her lesson plan and then asked for input from Tina.

When Sara proposed to teach the nine-week unit by employing the jigsaw teaching strategy on March 29, she explained to Tina the process of applying this model. During Sara’s explanation, Tina probed for clarification regarding the activity of the home group and the expert group. The two questions which Tina asked after Sara finished her introduction were about seating and grading. Sara said the final evaluation would be based on the group’s final project rather than on individual’s work although in the process there would be some formative evaluation of each individual’s work. As to the question of seating, Sara said she
had not prepared for grouping, so they worked together to put students into home groups. It was apparent from their conversation that Tina had more knowledge on students’ characteristics; she tended to group compatible students together in order for the cooperative learning to take place.

The situation was almost the same when Sara suggested to integrate social studies and language arts by engaging students in writing a snapshot biography. The following was the dialogue between Sara and Tina when they discussed the snapshot biography approach for the first time:

S: After finishing Boris [an autobiography written by a teenager], I plan to ask them to write biographies on Russian leaders.
N: Wait a minute. Having the kids write biographies on various people?
S: Some of the leaders.
N: OK.
S: And I was thinking about only doing Lenin, Stalin, and three current ones, because they’ll get more information out of those five than anybody else.
N: How long are these biographies going to be?
S: OK. The concept. I don’t think I sat down explaining this to you. Am I right?
N: I don’t think so.
S: OK. And we are doing in class right now so that I don’t have a complete concept of it. Basically, it’s called a snapshot biography. Basically they’re gonna produce a book, which means they have to do a table of contents, an introduction, a foreword about the authors, and a timeline and a map. So, they got everything covered. And we’ll be doing is we each pick something significant in that person’s life, and write a chapter, and chapters of the whole book come together. So, we’re doing one on an Indian doctor in my class. And like one person is writing about her heritage in her early childhood. I am writing about the influences in her life about what made her later become a doctor. Another person is talking about her kind of medical school. The other person is talking about her getting married and working on the Indian reservation. Forward is written by somebody who is not writing the book. The introduction basically gives you a background, what’s going on. The map gives them a concept of where it happened, where this person lived. The timeline gives all the events of that person’s life so that you get the whole picture. And the chapters are just snapshots
from that, four snapshots or five snapshots, that is more story-like than fact. I mean it’s “fact” but you write it in a kind of story-like tone. N: I’d love to see that product when you get it. S: I’ll have it done next week. N: Great. S: I’m a kind of enjoying the fact that we’re working together and also instead of looking at the whole, we start to look at the specifics about a person, and using our imagination to fill in to make it story-like, do you know what I am saying? N: I know exactly what you are saying. S: And they come up with a book. N: The only thing I might recommend though these kids have been doing group work for two weeks on the timeline, it might be time to back off a week and have them do something on their own. S: What we’re gonna let them do? N: I though it will be the Russian language. I can insert that. It’s writing. And it is individual. S: I would like an extra week to plan the biography. I am only getting it done next week.

It is clear from the above conversation that Sara’s blueprint of a teaching unit on snapshot biography was accepted without any challenges from Nita. The concerns Nita expressed during the four lesson plan periods which this author observed were all logistical questions rather than conceptual ones. The cooperating teacher acted as a cooperative figure but not a friendly critic. It is interesting to note that when Sara introduced the concept of snapshot biography, she mentioned that she was working on a project of the same nature for the social studies course which she was taking in the university.

Social Studies in the Elementary School: The Course Where the Ideas Originate

In the syllabus for “Social Studies in the Elementary School,” the instructor stated that one of objects of the course was:
Students will be able to plan social studies units on important topics featuring these teaching strategies: a. concept formation and classifying; b. jigsaw (a cooperative learning strategy); c. integrating literacy education with social studies education through, for example, biography production.

Corresponding to this objective, three of the six assignments for this course were concept formation lesson plan, jigsaw lesson plan, and team biography. When the instructor assigned the team biography, her wording was almost the same as when Sara introduced the concept of snapshot biography to Tina. The instructor first highlighted what was a snapshot biography, and described the assignment to teacher education students as follows:

In a snapshot biography, each person takes one piece and writes it independently.... Each of you should pick up one part of her life [Susan LaFlesche Picotte, a native American doctor] and write it up. Together you write an introduction. Somehow, as a group, you should come up with a map, showing where she studied in college and when she practiced medicine and so on. Another is that you together make a timeline. On the timeline, you might include other things that happened, such as the national events and when she died. And a table of contents. These are the parts you have to have. You have to have the introduction, a timeline, a map, and a table of contents that you all work on together. Another thing that you could ask your kids to do, and I would also like you to do is to ask someone to write a foreword for it.

After explaining the components of the assignment, the instructor went on asking teacher education students to brainstorm about what was involved in the teaching strategy of snapshot biography. The instructor summarized the teacher education students' responses as "reading for information, expository writing, and cooperative skills." Sara, during a casual talk with this author in the Seattle Middle School, complained that although she liked the idea of snapshot biography, it was a waste of time for her to physically engage in doing this.
One the other hand, Sara was enthusiastic about the assignment of jigsaw lesson plan and applying the lesson plan in classroom. In a reflective journal she kept for the social studies course, she wrote:

I have enjoyed the jigsaw lesson development in this class the most. I have finally seen the full value of jigsaw. Teaching my jigsaw has been a joy. At the beginning, the students were resistant to the new process and depending on a group for a final product. [Tina] says that my expectations are what got them over the hump. Because I believed that they could do it, slowly students started believing that they could do. Everyday, several students would come in saying, "I'm starting to get it, [Sara]!" The day that the students did their teaching to their [home] groups, I heard students asking great questions and even arguing about unclear facts. The students got very enthusiastic when it came time to build the timeline.... I am looking forward to using this method the way it is meant to be used many times during my teaching career. Thank you [the name of the instructor] for taking the time to show the value and proper use of this great teaching strategy!

There are perhaps two major reasons for Sara's enthusiasm about jigsaw. First, the jigsaw lesson plan works very well with her students. Second, she can integrate her assignment on campus and internship in school, which means that if the orientation and specific content of the coursework on campus are compatible with and can be immediately utilized in the internship, Sara will be prone to accept and apply the concepts, such as snapshot biography and, particularly, jigsaw. The difference between Sara's reactions to the jigsaw and snapshot biography assignments could be attributed to their relevancy to the internship in the school. A new dimension will be added to this observation if we examine the science method class in which Sara's willingness to accept the approach modeled by the instructor was dramatically reduced.
As the instructor stated, the science method class was hands-on, inquiry-oriented. This author observed two lessons taught by this instructor: one was to ask teacher education students to explain why a small section of the trees in Mt. Rainier National Park were dead on the basis of a set of well-prepared pictures and maps. The other was to develop the concept of circuit by using bulbs, batteries, wires. The approach of these two classes was the same, therefore, only the circuit class will be described below in detail.

The class was comprised of three parts. The instructor first asked the students to write down their own definition of "circuit." Five minutes later, he collected the notes and read them to the whole class. He asked the teacher education students whether their students would understand what a circuit was on the basis of their own definitions. Most of the teacher education students said "No."

The instructor then asked students to work individually to come up with ways they were successful and unsuccessful in making a circuit by using a wire, a battery, and a bulb. The instructor said that this was perhaps the only time they would work individually in this quarter, although the students were sitting in groups. After the students' experiments, the instructor demonstrated four ways to build a circuit with a battery, a wire, and a bulb. He also explained the structure of the bulb, which was crucial for understanding the four possibilities. The instructor also generalized that the direction of the battery did not matter.

He finally gave out Prediction Sheet 1 and asked students to try which of the 12 pictures represented a true circuit. Without his comment on teacher education students' work on Prediction Sheet 1, the students started to work on Prediction
Sheet 2, which contained more complicated circuits. The third part of the class intended to further develop students' concept of circuit.

After the class, this author talked with the teaching assistant for this course. He told me that most of the students in this class were not interested because the subject matter was not relevant to the elementary curriculum. This was confirmed to a certain degree when this author interviewed Sara. She said that "Science has been a waste of my time. I learned a lot about science, but it's certainly not gonna help me to teach. He has not presented anything that I had not already learned." Sara complained that 75 per cent of the grade for this course would be based on a test. The test would be one on knowledge about science as well as more or less what he told us to teach rather than how you would teach it.... I have to remember everything he told us in order to pass the test. We were just talking about it today. You learned it, but you have to apply it. And we're learning it without applying it.

The science method course presents an interesting case in contrast to that of the social studies course. Although the general approach of the science method course, hands-on and inquiry-oriented activities --- was compatible with Sara's philosophy of teaching and the same as that of the social studies course, the science method course had not impacted Sara to the degree that it intended. This is due to two factors: First, the subject matter of the science method course was difficult for most of the teacher education students, and the subject matter was perceived by them as irrelevant to the elementary curriculum. Second, the criterion with which teacher education students were evaluated had nothing to do with how to apply the inquiry-oriented teaching strategy which the science method course was trying to promote.
If we compare the social studies method course with the science method, we may see the mechanism with which a course effectively influences a student teacher. Sara was teaching social studies in the Seattle Middle School while she took the social studies method course in the university, her teaching in the school was a logical extension of her coursework on the campus. The assignments of the course such as writing a jigsaw lesson plan were interwoven with the internship in the school, although in the snapshot biography case, she liked the idea but did not want to personally go through the process. Because of the alignment of the work in two institutions, the jigsaw and snapshot biography teaching strategies achieved the impact that the instructor intended.

In contrast, science method course did not achieve the effectiveness it intended, although the instructor of the course was actually showing an inquiry-oriented, hands-on approach to teaching sciences. As it was described previously about the circuit lesson, the instructor was modeling how to help learners to develop a concept of circuit by engaging them in inquiry. The lesson started with the trial-and-error, asking learners to create the simplest circuit by hands-on activities involving a battery, a bulb, and a wire. It ended with predicting more complicated versions of circuit; and teacher education students might resort to hands-on activities involving more batteries, bulbs, and wires if they were not sure. However, due to the fact that many teacher education students had not developed a correct conception of circuit when they came to the class, which was apparent in the definitions they wrote at the beginning of the lesson, the instructor's intention to model hands-on, inquiry-oriented approach to teaching science was obscured by the overwhelming pressure on the students to acquire the knowledge regarding circuits.

Another factor which influenced the effectiveness of the science method course is that the science method course was not aligned with the internship in the school. Sara was not engaged in teaching science at all. She could not apply what
she learned, nor was she required to. The lack of immediate urgency regarding her work in the school setting shifted her attention away from the hands-on, inquiry-oriented approach which the instructor was modeling.

**Implications of Sara's Case**

Sara's case of field experience which was depicted in the foregoing has its implications for constructing field experience in the context of a school-university partnership. It is now common knowledge that “Schools, colleges, and departments of education (SCDEs) alone cannot educate prospective teachers well. Neither can schools. The success of teacher education requires the partnership of schools and universities” (Shen, 1993, p. 27). However, there are more questions than answers as to how to organize the field experience. Although it is not practical to expect a certain structure can be applied to all settings (Goodlad, 1988, p. 30), an analysis of some of the variables involved in Sara’s case may contribute to the typology of understanding field experience in the preservice teacher education program.

Field experience is one of the innovative elements of the PDC Middle School Preservice Teacher Education Program. Sara seemed to enjoy the field experience organized by the program. She liked the PDC core seminar which gradually introduced her to the field. She said that “I would not trade my PDC seminar with anything on the world.” She perceived that “[The Seattle Middle School] being a PDS, we [interns] were welcomed by 90% of the staff. We have been able to be a part of the community instead of outsiders visiting.” Sara also felt quite comfortable with Tina, she wrote in her reflective journal:

> My cooperating teacher is a member of the team and is very comfortable working with someone and is comfortable with letting another person teach her class.... My [cooperating] teacher is progressive and loves to try out the ideas I learned from my university classes.
Sara liked to work with the site supervisor and members of her cohort in the PDC Middle School Preservice Teacher Education Program. She told this author the following during an interview:

One-site supervision was absolutely the best thing in the world. I never made through this year without her [the site supervisor]. Being assigned to a school as an intern team, and being able to work with other interns in my class was wonderful, emotionally as well as mentally. We worked on special projects together. We helped each other back and forth. We learned a lot about team teaching because of it.

In short, Sara felt satisfied with the arrangement regarding her field experience. She concluded her comment on field experience with the following observation: “I just think the whole thing was better. We did more work, but I think we got ten times in-class experience.”

Because the PDC Middle School Preservice Teacher Education Program was developed in the context of a school-university partnership, there is a supportive structure for field experience. Sara benefited from this supportive structure. Some of the features of this structure which Sara perceived constructive include: letting students have early experience to be exposed to more educational practices; gradually enlarging the field experience, from cross-site visits to part-time student teaching, and finally to full-time student teaching; matching a student teacher with a cooperating teacher; having a cohort in the school in order to ease the transition from the campus to the school; and having an on-site supervisor who bridges the school and the campus and also makes recommendations for licensing.

One conclusion that can be drawn at this point is that the supportive structure embedded in the PDC Middle School Preservice Teacher Education helped Sara to ease her transition from the university into the field. During her field
experience, there was no "becoming more conservative" phenomenon as illustrated by Hoy and Woolfolk (1990), nor was there "living with conformity in student teaching" as elaborated by McKinnon (1989). Therefore, by the virtue of constructing field experience in the school-university context, Sara did not have the miserable experience as depicted by McKinnon, and Woolfolk and Hoy.

On the other hand, although Tina supported Sara’s trying out the ideas she learned in the social sciences method, she did not aggressively engage Sara in “teaching against the grain.” Whenever Sara proposed an idea to plan a unit or part of a unit, the cooperating teacher asked questions for clarification and tried to help Sara to accommodate the idea into the classroom, but she did not challenge Sara for the underpinnings of teaching strategies such as snapshot biography and jigsaw. There seemed to be a one-way influence from the campus to the school in terms of new teaching strategies. The cooperating teacher’s role was to provide a laboratory and help the student teacher to experiment, but not to take a more critical stance to challenge Sara and make her more conscious of the underlying assumptions of the new teaching strategies. Without such challenges, the student teacher might apply and enjoy such teaching strategies as jigsaw, but she did not necessarily develop an inquiring attitude toward teaching. Jigsaw and snapshot biography are, after all, two teaching strategies introduced by the social studies course. What is more important is to assimilate the philosophical underpinnings embedded in the strategies. Lack of critical attitude would become an impediment for her continuing professional development.

The nature of Sara’s field experience revealed that a supportive structure in the context of a school-university partnership is a necessary but not sufficient condition for successful field experience. In Sara’s case, more attention should be paid to the contents involved in field experience. Several questions deserve our attention in this regard: How to reconstruct the science method course so as to let
the student teacher realize the teaching philosophy which the instructor is modeling? How to make the integration of coursework and internship less serendipitous? How to move the cooperating teacher’s role beyond being cooperative to being critical? How to let the student teacher not only enjoy practicing certain teaching strategies but begin to develop an inquiring attitude as well? Solving these questions would require a micromanagement of the contents of field experience within the supportive context of school-university partnership.

Sara’s case of student teaching illustrates the possibility of overcoming the shortcomings associated with the conventional way of student teaching by constructing field experience in the context of a school-university partnership. Without school-university partnership, everything is left to the cooperating teacher; because of the inertia in the field, “becoming conservative” and “living with conformity” will occur in most cases. The benefits of the supportive structure, however, make us realize the imperative to pay attention to the contents of the field experience. More work is needed to improve the school-university coordination in respect of the contents of field experience.
Bibliography


