

Student teacher and cooperating teacher tensions in a high school mathematics teacher internship: The case of Luis and Sheri

1. Introduction

Teacher educators and teachers alike acknowledge students' clinical experiences, especially their teaching internship experience, as one of the most important and influential experiences in their teacher education programs (Byrd & McIntyre, 1996; Wilson, Floden, & Ferrini-Mundy, 2002). Despite the importance of teaching internships, there has been little research on prospective teachers teaching internship experience (Peterson, Williams, & Durrant, 2005; Wilson, et al., 2002). Although this lack of research exists across disciplines, it is especially acute in secondary mathematics education (Mtetwa & Thompsom, 2000; Rhoads, Radu, & Weber, in press). We seek to address this void with the present study.

The teaching internship is a time in which many teachers develop their philosophy of teaching. The cooperating teacher with whom a student teacher is placed may contribute to the development of this philosophy. In a survey of 63 secondary mathematics student teachers, interns cited their cooperating teacher as having the greatest influence on their teaching philosophy (Frykholm, 1999). However, sometimes this influence may not be a positive one. Ensor (2001) described how one secondary mathematics student teacher rarely taught in a manner that aligned with her own teaching philosophy. Ensor hypothesized that this may have been due to the cooperating teacher's different philosophy. In a more recent study with nine secondary mathematics student teachers, Rhoads, Radu, and Weber (in press) found that student teachers felt that having teaching philosophies that differed from their cooperating teacher was not problematic, as long as they were given freedom to try out their own teaching methods.

The feedback that cooperating teachers provide interns also affects student teachers' pedagogical and mathematical development. Peterson and Williams (2008) presented a case study of two secondary mathematics student teachers. One teacher was paired with a mentor who challenged her to think deeply about the mathematics she was teaching, but the other student teacher was paired with a cooperating teacher whose feedback focused on classroom management issues. This second student teacher missed key opportunities to develop his mathematical knowledge for teaching. Other researchers have suggested that mathematics-specific feedback is rare in the student teaching experience (Fernandez & Erlbigin, 2009).

Freedom of teaching methods and the feedback that student teachers receive from their cooperating teachers are just two of many factors that can affect a student teacher's experience. In a previous study, we found a wide variance in the quality of prospective teachers' internship experiences (Rhoads, et al., in press). Some students reported having positive experiences where they learned a great deal. Others reported having negative experiences where they had tense relationships with their cooperating teachers and felt constrained in the teaching methods they were allowed to apply. The purpose of this paper is to understand such a negative relationship in more detail. We do this by presenting a case study of a student teacher and a cooperating teacher who had a difficult relationship, focusing on what issues may have contributed to these difficulties.

2. Research methods

Context. This data came from a larger study that took place at a large northeastern state university. In the fall of 2009, there were seven prospective high school mathematics teachers enrolled in a five-year mathematics education program at this university. To understand their teaching internship experiences, we interviewed all seven of these students, along with six of their cooperating teachers and three of their supervisors, about their teaching internship experience. In this paper, we focus on one student, Luis, and his cooperating teacher, Sheri. (Luis and Sheri are pseudonyms.)

Luis and Sheri. Luis worked with two cooperating teachers, Sheri and Anya. Anya declined to be interviewed but gave Luis very favorable evaluations. By most accounts, Luis was an exceptional student. His GPA as a mathematics major was nearly 3.9; he earned A's in all of his teacher education classes, and the teachers of his mathematics education classes raved about his performance; and his student-teaching supervisor gave him very high evaluations, saying he could develop into a "master teacher". Sheri was viewed by her principal and Luis' supervisor as an effective teacher; by her account, she had worked successfully with two student-teachers in the past.

Data and analysis. At the end of the semester, Luis and Sheri individually met with the first author for a semi-structured interview about their experiences during Luis' teaching-internship. Questions were based on the preliminary findings reported in Rhoads, et al. (in press) and focused on their overall experience, their relationships with one another, the freedom Luis was permitted in the classroom, and the feedback Luis received. Analysis of these interviews was conducted by the authors in the style of Strauss and Corbin (1990); the findings of this analysis were then compared with the interview with Luis' supervisor as well as written artifacts that we collected (i.e., Sheri and others' formal feedback of Luis and 20 pages of hand-written feedback that Sheri provided to Luis). Once our tentative conclusions were reached, the first author again interviewed Luis to see if he felt these findings were accurate and to ask about issues we found ambiguous. This data was used to amend our findings.

3. Results

Although Luis and Sheri both professed to respect one another and not dislike each other personally, each reported having a difficult internship experience. We identified seven causes of tension between them: (a) different perspectives on how much freedom Luis was allowed, (b) disagreements about what mathematics should be emphasized in Luis' teaching, (c) Luis' failure to understand students' thinking, (d) Luis' difficulties with time management, (e) Sheri's propensity to interrupt Luis during his lessons, (f) Luis receiving little feedback from Sheri late in the semester, and (g) a tense personal relationship between them.

In the presentation, we will illustrate each of these points in detail. For the sake of brevity, we discuss only three in this proposal.

Freedom of teaching methods. Sheri taught primarily with the use of PowerPoint slides. She also required that Luis have his notes prepared in a format that could be readily displayed to students. However, Sheri felt Luis had freedom because he could prepare his notes and solutions to in-class problems using PowerPoint, overhead slides, or in some other format. In this way, Sheri

believed she allowed Luis freedom in “pretty much everything” in teaching. In contrast, Luis felt constrained that he could not be responsive to the students, in part because he could not work through in-class problems in real time. This cause of tension suggests that what might constitute freedom to a cooperating teacher might be quite restrictive for a student teacher.

What mathematical topics should receive emphasis. Luis taught precalculus with Sheri and believed it was important to prepare the students mathematically for higher courses, such as calculus. For example, when Luis taught addition of functions, he encouraged students to think critically about the domain of a sum of two functions with different domains. During this lesson, Sheri interrupted Luis to say “you’re spending way too much time on this”. In her interview, Sheri expressed that many of her students were not going to take calculus and so the ideas that Luis emphasized were unnecessary, confusing to students, and too time consuming. Many mathematics educators would likely prefer the ideas that Luis emphasized in his teaching, and this points to the possible conflicts between the goals of mathematics educators and those of cooperating teachers in the internship experience.

Common difficulties of beginning teachers. Both Sheri and Luis acknowledged Luis had difficulty with time management and understanding student thinking. However, Luis was not alone in this regard. All the student teachers that we interviewed had similar difficulties, and other cooperating teachers and supervisors found this to be normal. One difference in Sheri and Luis’ interactions was she thought that this was a serious shortcoming that prevented Luis from teaching her class competently.

4. Significance

Typically, in the United States, cooperating teachers receive little or no formal preparation informing them of how to be effective cooperating teachers or even telling them what to expect (Giebelhaus & Bowman, 2002). Recently, some researchers have urged for the development of such preparation programs (Feiman-Nemser, 2001; Giebelhaus & Bowman, 2002). Our results suggest what might be included in such programs. First, cooperating teachers should be aware of what difficulties student interns are likely to have so they do not find these difficulties to be problematic. Second, cooperating teachers should be encouraged to allow student teachers sufficient freedom to try out the ideas they learned in their teacher education programs. Third, mathematics educators and cooperating teachers should be encouraged to discuss their philosophies and goals regarding the student-teaching experience. Such conversations may not lead to consensus, but could lead to a mutual understanding and help to avoid some of the tension that we saw with Luis and Sheri.

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