

Talking to Paper Doesn't Work: Factors that Facilitate Preservice Teacher Reflection

By Heidi J. Stevenson & Kellie J. Cain

Encouraged in large part by the work of Schon (1983), teacher education programs have spent the last two decades providing preservice teachers with experiences designed to help them examine their beliefs and develop reflective habits (Roskos et al., 2001; Tsangaridou & Siedentop, 1995; Zeichner & Liston, 1987). Prior to student teaching, preservice teachers often engage in structured writing activities based on observing their colleagues' teaching in the university classroom, in order to practice reflection (Tsangaridou & Siedentop, 1995). Preservice teachers, however, are not naturally inclined to develop reflective skills (LaBoskey, 1994; Loughran, 1997), so even after completing assignments designed to foster reflection, they still struggle to transfer these skills to their own teaching, and rarely grapple with the quality of dilemmas that inservice teachers view as catalysts for reflection (Cain, 2005).

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These difficulties with reflection are further complicated by the fact that teachers, and preservice teachers in particular, have less autonomy over their curriculum due to top-down filtering of test-related pressures (Moon, Brighton, Jarvis, & Hall, 2007). Adhering to a script or pacing guide limits opportunities to engage in the reflective cycle of identifying challenges, weighing alternatives, and implementing potential solutions. This lack of teacher control over

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the curriculum runs contrary to literature on teacher effectiveness that purports “flexibility,” “creativity,” and “adaptability” contribute to student learning (Berliner & Tikunoff, 1976; Darling-Hammond, Bransford, LePage, Hammerness, & Duffy, 2005; Schalock, 1979; Walberg & Waxman, 1982). Such teaching requires autonomy and reflection, while Darling-Hammond argues that having only one way to teach makes teachers “...less effective in meeting the needs of the students” (PBS, 2001).

Some researchers (e.g., Berliner, 1988; Dinkleman, 2000) question if preservice teachers are capable of developing critical reflective skills, and propose that this may be a more appropriate goal for experienced teachers. Nevertheless, the role of reflection in contributing to teachers’ professional growth and effectiveness is well documented (Constantino & De Lorenzo, 2001; Danielson & McGreal, 2000; Glickman, 2002; Lambert, 2003). Thus, institutions of teacher education (Dewey, 1933; Hatton & Smith, 1995; LaBoskey, 1994; Schon, 1983) and the National Council for the Accreditation of Teacher Education (NCATE, 2002) highly value student learning, and therefore encourage reflection by preservice and inservice teachers, even in this era of high-stakes testing and scripted curriculum. Knowing the important role reflection plays in K-12 learning and the many obstacles preservice teachers face in the process of reflecting, it seems relevant to ask, “How do preservice teachers experience reflection?”

Although teacher educators have roundly embraced reflection, there is little agreement on its definition (Bullough & Gitlin, 1989; LaBoskey, 1994). Contemporary scholars’ interpretations of reflection have been influenced by Dewey (1933), van Manen (1977, 1991) and Schon (1987), among others. For the purposes of this study, the researchers adopt Bullough and Gitlin’s (2001) following depiction of reflection: “being actively engaged in the study of one’s practice and the intersection of belief, action, and outcome so that in the future wiser decisions can be made while teaching” (p.14).

Methods

This study is set at a small, private, Northern California university where both researchers teach. The participants were beginning their student teaching and were placed at three area high schools, with two different cooperating teachers. Data collection took place over a 16-week semester of full-time student teaching. During data collection, the researchers referred not only to participants’ student teaching but also their entire preservice experience at the university, including coursework, fieldwork, and student teaching.

Participants

Two multiple subject and four single subject candidates who were part of one of the researcher’s student teaching cohort were identified and administered

an interview designed for participant selection. Due to their high level of value and engagement with reflection, as identified by the interview, three single subject participants—Erin, Jamie, and Charles—were selected to take part in the study.

In order to share a sense of the participants' experiences with reflection through the teacher education program, it is important to understand that these participants had passed seven teacher education courses at the university, including three introductory, one English Learner (EL), and three methods courses. They were also all placed in highly diverse student teaching placements with two different cooperating teachers. In addition, they agreed to participate in this study, understanding that participation had no impact on their course grade, and they could withdraw from the study at any time. The names used in this article are pseudonyms to protect the identity of all participants. It is also important to note that the researcher who served as a supervisor was only one of four people who determined whether the student would pass student teaching.

Erin

Erin had been an outstanding student throughout her college career. She had a Deweyan perspective on her job as a teacher and emphasized her responsibility to prepare students to be productive citizens (Interview). Erin's teaching reflected her philosophy. She worked with two cooperating teachers during the course of the semester in which she student taught and was assigned to teach classes that were organized by perceived student ability levels, from honors classes to remedial. Erin made a concerted effort to use higher-order teaching strategies in all of her classes, although she conceded that it was a challenge with remedial students, whose experiences in schools so often tend not to be rich and engaging (Interview). Erin's high school placement was in a diverse, urban school of approximately 2,000 students. Forty-eight percent of students were Hispanic while the rest of the student population was evenly distributed among African Americans, Asians, and Whites. Over 60% of the students qualified for the free lunch program. The number of ELs was 14%, significantly lower than the state average of ELs per school.

Charles

Teaching was not Charles' first career choice. After changing his major to English during his sophomore year, a professor suggested that he consider teaching English. Charles rejected the "traditional model of teacher as expert," in describing his educational philosophy, and advocated an interactive, cooperative learning environment in which "students are leading the exploration and the teachers are helping to facilitate their exploration" (Interview). Like many novice teachers, however, Charles found it difficult to implement his egalitarian goals, and taught in a traditional, teacher-centered manner during his student teaching placements. Charles' placement was in a high school located in a suburban neighborhood. Its student body of 2,300 was very diverse: 28% of the students are Hispanic, 24% are

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Asian, 21% are White, and the remaining 27% are African American. Approximately half of the students qualify for the free lunch program.

Jamie

Jamie, like many secondary teachers, fell in love with her content area (history) and her professors' delivery of instruction and then decided to become a teacher. She described the teacher's role in the classroom as being a "guiding leader" where the teacher "guides [students] towards, coaches them, and hopefully motivates them to do most of the work on their own" (Interview). Jamie's philosophy was evident in her teaching. During her student teaching experience, Jamie facilitated and supported students as they participated in performances and completed projects in junior and senior social studies classes. Jamie's student teaching placement occurred in a suburban high school of 2,700 students. The student population was diverse, with 38% White, 29% Hispanic, 17% African American, and 16% Asian. This high school was located in a more affluent area than the other two schools in the present study, and a third of the students qualify for free or reduced lunch.

Data Collection and Analysis

To develop an understanding of reflection, it was deemed appropriate to focus on participants who could be identified as already valuing and engaging in consistent reflection. There were three initial data sources collected per participant: (1) Interview (see Appendix A); (2) eight Reflective Lesson Plans (see Appendix B); and (3) eight Post-Observation Conferences (referred to as Post-observation).

Data collection took place over a 16-week period of student teaching in which participants were observed teaching lessons in grade 9-12 classrooms and submitted reflective lesson plans and conducted post-observation conferences every two weeks (eight times for each participant).

The interview was used for final participant selection, and was tape-recorded, transcribed, and administered to all six initial participants (two multiple subject and four single subject). It consists of ten questions regarding participants' definition of reflection, how reflection had been addressed over their entire teacher education program, and if and how they have applied reflective practices. Responses to questions four through six of the interview protocol (see Appendix A) were used to determine which participants were the most avid in their reflective practices, and thus would be the most informative final participants.

Through administering the interview the first week of student teaching, it became apparent that one single subject and one multiple subject participant were not fully engaging in reflection during their coursework prior to student teaching, and the other multiple subject participant expressed only a vague sense of how she, or teachers in general, could benefit from incorporating reflective practices. Therefore, those participants were eliminated from the study and the three remain-

ing single subject candidates—Erin, Charles, and Jamie—were selected based on their consistent practice and valuing of reflection.

Every two weeks one of the researchers observed the participants teaching a lesson and afterwards conducted a post-observation conference. Each conference began with the question, “How do you think the lesson went?” Participants also referred to the development of reflective practices throughout their teacher education program. The researcher took field notes during and after these conversations and also recorded them to confirm direct quotes.

Every two weeks participants submitted reflective lesson plans based on a Beginning Teacher Support Assistance (BTSA) model (see Appendix B). The form asked candidates to describe the learning goals, instructional activities, and assessments of a lesson, as well as how effective instruction was in each area, and what could be done differently in the future. During the post-observation conferences, it became apparent that participants did not believe these lessons represented authentic reflection. Therefore, this data was not included in final analyses.

The final two data sources from the interview and eight post-observation conferences were submitted to constant comparative analysis (Glaser & Strauss, 1967), identifying common themes and patterns by repeated reviews, and developing appropriate categories by comparing patterns across data. Initial codes included: (1) making meaning through experience, (2) guided partnership approach, and (3) real world versus theory. Further categorization resulted in factors inhibiting or facilitating reflection. Upon additional analysis, it became apparent that the inhibiting factors were merely inversions of the facilitating factors, so once again revisions were made, resulting in the final four assertions presented in this article.

To control for researcher bias, The researchers conferred with each other regarding formulation of categories and coding of statements. After analysis, each participant individually reviewed and approved quotes selected and data presented as a form of member checking. This process was a confirmation that informed the present study’s work as it did not result in any major revisions.

Results

1. A Teacher Education Program Should Value and Model Reflection and Facilitate Reflective Practices

Calderhead (1992) and Yost, et al. (2000), argue that to have reflective teachers, reflective schools and reflective teacher educators are needed. All three participants in this study clearly understood that their teacher education program aimed to create reflective practitioners and that reflection is valued as a requisite skill to good teaching. As Erin described her introduction to concepts of reflection, she explained, “I think I first learned about reflection in [my] education program because I think that’s part of their mission statement that they want to create more reflective instructors” (Interview). As participants discussed their experiences of learning how to reflect,

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however, it appeared that prior to student teaching they experienced few models of reflection that they came to understand as useful for teaching. It was not until the semester-long student teaching practicum that participants came to engage in reflection similar to practicing teachers.

Charles did note an exception to this when he described a course prior to student teaching in which the instructor modeled reflective processes and coached Charles to reflect:

“Well, this is what I see,” and he’d say, “No, what do you notice about this?” and it’s not just your reporting of the actions, but it’s reporting the reasons for the actions, and the background, and your reactions. (Interview)

The teacher education program appears to have successfully conveyed the importance of reflection to candidates. What is not evident, however, is whether or not the program provided modeling of reflective activities that are needed in actual practice. The disconnect Erin and Jamie experienced between values espoused by the program and practices regarding reflection are not unique. O’Donoghue and Brooker’s (1996) study of reflection in a teacher education program revealed that although program literature and faculty stated that creating reflective practitioners was an objective, there was no agreement among faculty or students about what reflection meant. They cautioned that, “Reflection is in danger of coming into disrepute if the practices aimed at its promotion among student teachers do not match the rhetoric” (p. 107).

2. Engaging with Knowledgeable Others (e.g., Cooperating Teachers and Supervisors) Supports the Reflective Process

While student teaching, participants in the present study all drew on their cooperating teachers’ experience to assist them in making sense of the classroom dilemmas they encountered. Both Erin (three times) and Charles (four times) used the phrase “outsider’s perspective” in the data corpus, both noting they found such a perspective helpful in facilitating reflection. This supports Pultorak’s (1993) finding that an oral interaction with someone experienced in reflection leads preservice students to higher levels of reflection. This is also in line with Copeland’s (1986) result which suggests teacher educators need to teach students which questions to pose while engaging in reflective writing and responding to students’ writings.

Another’s experience and expertise can assist teachers in reflecting on teaching episodes and taking action in ways they might not have attempted without these outsider perspectives (Blanton, Berenson & Norwood, 2001; Bolin, 1988; Hoover, 1994; Pultorak, 1993; Vygotsky, 1978). More specifically, Dinkelman (2000) found that conferences with a university supervisor possessing a deep understanding of reflection and his/her students encourages critical reflection. This appeared to also be true for Erin and Charles. Erin explained,

...it’s not as clear what you could do better, I think that’s really when an outsider’s

perspective helps, like the mentor teachers helped, and [my supervisor] in telling me how my lessons could have been improved. (Post-observation, 6)

Charles also valued the perspective of an outsider to help him reflect,

You know, unless someone gives you some honest feedback about your reflection, it's really almost wasted effort. (Post-observation, 3)

The quality of support for reflective practices, and its effectiveness, however, can vary widely by support person. Kettle and Sellars (1996) caution that in some contexts there is "no evidence to suggest that supervisors were encouraging student teachers to think about the wider ramification of their teaching practice" (p. 21). Jamie, in particular, noted a marked difference in the quality of support provided by her two cooperating teachers.

Jeff instituted the reflective journal with me, where he would write on one side and then I would write in response to his side or I would write to him and he would respond, so that we could have a communication going while we were busy or so that we could remember our thoughts about different things. With Ben [my first cooperating teacher], maybe after a couple of lessons he would just be like, "You were a lot more comfortable that time," and I'd ask him what had made me uncomfortable before. (Post-observation, 6)

It is interesting to note that Jeff was a graduate of another reflective practiced-based teacher education program.

Instructors prior to student teaching also served as outsiders, providing comments on coursework and fieldwork assignments to support reflection. Nevertheless, all participants preferred the immediate and personalized nature of advice from cooperating teachers and university supervisors during student teaching, as compared to feedback provided by instructors. Jamie illustrates,

My reflection here [student teaching] is more verbal and discussing [sic] with other teachers and there [fieldwork] I didn't—I talked to myself on paper and got a response or two from [instructors] that was about it. (Post-observation, 4)

3. A Sense of Belonging and Relationships in the Classroom Assist with Reflection

Fairbanks and Meritt (1998) found that close relationships, which formed between cooperating and preservice teachers, contributed to the preservice teachers' willingness to take risks and approach teaching as inquiry. All three participants emphasized how feeling like they were invested in their student teaching class influenced their reflection. In fact, both Erin and Charles used the terms "invested" and "rapport" when discussing student teaching. As Erin described the kind of reflection she engaged in during fieldwork prior to student teaching she observed,

If I had to give a lesson in the class for fieldwork, I only reflected on the night after because I wouldn't have to teach that lesson again, neither would I have to teach

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that lesson on the following day because it was a one-time deal... (Post-observation, 6)

Kagan (1992) noted that the brevity of field experiences contributes little to challenge preservice teachers' beliefs and lead to reflection. Like Erin, Charles felt that his time in classrooms during fieldwork was also too fleeting to establish a relationship with students and understand the details of each particular classroom:

It was not until late into my fieldwork hours that I really started getting a feel for the classroom. Up until that point I was getting over the hump of students seeing me as an observer or as an intrusive person in the classroom, not really being settled yet. And that time that it took to get acclimated to me was wasted time. And I wasn't really able to reflect effectively until the last bit. But while student teaching, it was a long enough time and I was with the students enough that I really built a rapport, and when I made a reflection, I made a decision and I was really able to implement that and I could see how it really had a change and those are all the things lacking from the coursework with reflection. (Post Observation, 8)

As Charles alludes to above, during student teaching participants were actively reflecting on their practices, and this may be attributed to the relationships they established with their students. Noddings (1995) stated,

When we care, we must employ reasoning to decide what to do and how to best to do it. We strive for competence because we want to do our best for those who we care for. (p. 138)

Erin resonated with this notion as she said,

I was reflecting while I was giving the lesson, I was reflecting the night after, the day after, the week after, just because I had a lot more invested in these students [than my fieldwork students]. (Post-observation, 8)

In the present study, student teaching gave these participants a sense of belonging, authentic tasks and problems, and trust (Mewborn, 1999; Willard-Holt & Bottomley, 2000) that allowed them to experience reflection in ways not available to preservice teachers only engaging in coursework or fieldwork.

4. Freedom over Time and Form Encourages Reflection

About reflection, Charles stated, "Sometimes you have to write it down, sometimes you have to talk to someone. There's so many different ways to go about it." This is in alignment with Spalding and Wilson's (2002) finding that diversity among student teachers requires availability of a wide range of strategies to help them reflect. Pultorak (1993) showed that asking preservice teachers to reflect in a number of different ways, through the use of journals and dialogue, influenced the types and quality of reflection in which they engaged.

On 17 different instances, participants in the present study identified the time-consuming nature of the reflective lesson plans (see Appendix B) as prohibitive of

reflection. This supports Bullough and Gitlin's (1991) finding that the time pressures preservice teachers face inhibit their ability to reflect. Erin stated, "Those [reflective lesson] plans were just so lengthy that sometimes they inhibited true reflection because I often didn't have a lot of time" (Post-observation, 8). Each participant also made recommendations on ways to modify the reflective lesson plan (e.g., more open-ended prompts, emphasis on what to do next time) to best fit the manner in which they are able to reflect.

Conclusion

The present study investigated participants' reflective practices throughout their teacher education program, from coursework through student teaching. An interview and eight post-observation conferences were conducted with each participant during student teaching, and the results derived from constant comparative analysis (Glaser & Strauss, 1967) present intriguing patterns in terms of factors facilitating participants' reflection.

Though the results of the present study provide interesting insights into participants' reflection, they also raise intriguing questions. Similar to Erin and Jamie in this study, preservice teachers frequently experience a disconnect between the values espoused by their education program and practices taught regarding reflection (O'Donoghue & Brooker, 1996). Therefore, it seems important to ask, "As most teacher education programs address reflection in their mission, how do they ensure that all educators in their program (e.g., professors, supervisors, and cooperating teachers) have a consistent and well-articulated understanding of reflection and how to foster it?" It may also be intriguing to investigate traits of cooperating teachers that actively and regularly encourage reflective practices and whether this population shares any common traits.

If graduating reflective practitioners is a programmatic objective, then it may be important to address the fact that this study's participants, and preservice teachers in general, have limited opportunities to engage in meaningful reflection prior to student teaching (Cain, 2005). It may also be prudent to address Dinkelman (2000) and Berliner's (1988) concerns regarding preservice teachers' capabilities to learn and implement critical reflective skills. A worthy question may be, "What manner of reflective assignments prior to student teaching are developmentally appropriate and relevant in building a foundation of reflective skills that can be transferred to their work as teachers?"

Quality of reflection appears to be influenced by not only having opportunities to reflect, but also by being able to do so in a variety of ways (Pultorak, 1993; Spalding & Wilson, 2002). The students in the present study mentioned 17 times that they felt the reflective lesson plans they were assigned to develop reflective skills actually prohibited their reflection. It would be interesting to investigate how and if many teacher education programs offer choice in the mode of reflection by

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asking, “What options regarding form of reflection (e.g., dialectical or personal journals, conversations, vlogs) contribute to changes in practices, resulting in K-12 student learning?” and “How do reflective assignments assess and respond to the development of preservice teachers’ reflection across the spectrum from coursework and fieldwork through student teaching?”

These questions warrant additional research and contemplation during articulation in teacher education programs. The researchers acknowledge that a severe limitation of the present study is the small number of participants. Value may be found in studying a greater number of participants placed in different school sites providing numerous missions and cultures regarding reflection. In addition, it may be interesting to investigate how participants from different universities may experience reflection at the same school sites, and in schools with varying cultures of reflection.

Addressing the conceptual and methodological issues presented here could assist teacher education programs, K-12 principals, and BTSA groups in supporting a culture and encouraging practices that foster meaningful, autonomous reflection. The result could well be preservice teachers’ adoption of life-long reflective practices which best improve their teaching (Yost, et al., 2000) and positively contribute to student learning (Osterman & Kottkamp, 2004).

References

- Bullough, R. V., & Gitlin, A. D. (1989). Toward educative communities: Teacher education and the quest for the reflective practitioner. *Qualitative Studies in Education*, 2(4), 285-298.
- Bullough, R. V., & Gitlin, A. D. (1991). Educative communities and the development of the reflective practitioner. In B. R. Tabachnick & K. Zeichner (Eds.), *Issues and practices in inquiry-oriented teacher education*. London, UK: Falmer Press.
- Bullough, R. V., & Gitlin, A. D. (2001). *Becoming a student of teaching: Linking knowledge production and practice*. New York: Falmer Press.
- Cain, K. J. (2005). The development of teachers’ reflectivity: Theory into practice (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (Accession Order No. 3198705).
- Calderhead, J. (1992). The role of reflection in learning to teach. In L. Valli (Ed.), *Reflective Teacher Education: cases and critiques* (pp. 139-146). New York: State University of New York Press.
- Constantino, P. M., & De Lorenzo, M. N. (2001). *Developing a professional teaching portfolio: A guide for success*. Boston: Allyn & Bacon.
- Copeland, W. D. (1986). The RITE framework for teacher education: Preservice applications. In J. V. Hoffman & S. A. Edwards (Eds.), *Reality and reform in clinical teacher education* (pp. 24-44). New York: Random House.
- Danielson, C., & McGreal, T. L. (2000). *Teacher evaluation to enhance professional practice*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Darling-Hammond, L., Bransford, J. D., LePage, P., Hammerness, K., & Duffy, H. (2005). *Preparing teachers for a changing world: What teachers should learn and be able to*

- do. San Francisco: Jossey-Bass.
- Darling-Hammond, L. (Interviewee). (2001). Only a Teacher. [Interview transcript]. Retrieved from PBS Web site: <http://www.pbs.org/onlyateacher/>
- Dewey, J. (1933). *How we think*. Lexington, MA: D. C. Heath.
- Fairbanks, C. M., & Meritt, J. (1998). Preservice teachers' reflections and the role of context in learning to teach. *Teacher Education Quarterly*, 25(3), 47- 68.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. New York: Aldine.
- Hatton, N. & Smith, D. (1995). Reflection in teacher education: Towards definition and implementation. *Teaching and Teacher Education*, 11, 33-49.
- Kagan, D. (1992). Professional growth among preservice and beginning teachers. *Review of Educational Research*, 62(2), 129-169.
- Lambert, L. (2003). *Leadership capacity for lasting school improvement*. Alexandria, VA: Association for Supervision and Curriculum Development.
- LaBoskey, V. K., (1994). *Development of reflective practice: A study of preservice teachers*. New York: Teachers College Press.
- Loughran, J. J., & Russell, T. J. (Eds.). (1997). *Teaching about teaching: Purpose, passion and pedagogy in teacher education*. London, UK: Falmer Press.
- Mewborn, D. S. (1999). Reflective thinking among preservice elementary mathematics teachers. *Journal for Research in Mathematics Education*, 30(3), 31-52.
- Moon, T. R., Brighton, C. M., Jarvis, J. M., & Hall, C. J. (2007). *State standardized testing programs: Their effects on teachers and students* (RM07228). Storrs, CT: The National Research Center on the Gifted and Talented, University of Connecticut.
- National Council for Accreditation of Teacher Education (NCATE). (2002). *Professional standards for the accreditation of schools, colleges, and departments of education*. Washington, DC: National Council for Accreditation of Teacher Education.
- O'Donoghue, T.A., & Brooker, R. (1996). The rhetoric and the reality of the promotion of reflection during practice teaching: An Australian case study. *Journal of Teacher Education*, 47(2), 99-109.
- Osterman, K. P., & Kottkamp, R. B. (2004). *Reflective practice for educators: Improving schooling through professional development*. Thousand Oaks, CA: Corwin Press.
- Pultorak, E. G. (1993). Facilitating reflective thought in novice teachers. *Journal of Teacher Education*, 44(4), 288-295.
- Roskos, K., Vukelich, C., & Risko, V. (2001). Reflection and learning to teach reading: A critical review of literacy and general teacher education studies. *Journal of Literacy Research*. 33(4), 595-635.
- Schon, D. A. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.
- Schon, D. A. (1987). *Educating the reflective practitioner*. San Francisco: Jossey-Bass.
- Shallock, D. (1979). Research in teacher selection. In D. C. Berlinger (Ed.), *Review of research in education*. New York: American Educational Research Association.
- Spaulding, E., & Wilson, A. (2002). Demystifying reflection: A study of pedagogical strategies that encourage reflective journal writing. *Teachers College Record*, 104(7), 1393-1421.
- Tsangaridou, N. & Siedentop, D. (1995). Reflective teaching: A literature review. *Quest*, 47(2), 212-237.
- van Manen, M. (1991). *The tact of teaching: The meaning of pedagogical thoughtfulness*.
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- New York: State University of New York Press.
- van Manen, M. (1977). Linking ways of knowing with ways of being practical. *Curriculum Inquiry*, 6, 205-228.
- Waxman, H. C., & Walberg, H. J. (1982). The relation of teaching and learning: A review of reviews of the process-product paradigm. *Contemporary Education*, 1, 103-120.
- Willard-Holt, C. & Bottomley, D. (2000). Reflectivity and effectiveness of preservice teachers in a unique field experience. *Action in Teacher Education*, 22(2), 76-89.
- Yost, D. S., Sentner, S. M., & Forlenza-Bailey, A. (2000). An examination of the construct of critical reflection: Implications for teacher education programming in the 21st Century. *Journal of Teacher Education*, 51(1), 39-49.
- Zeichner, K. M., & Liston, D. P. (1987). Teaching student teachers to reflect. *Harvard Educational Review*. 56(1), 23-48.

Appendix A **Interview Protocol**

1. How would you define reflection?
2. Can you describe the way it was introduced to you in your teacher education courses?
3. Talk about some of the reflective assignments you've completed for this class. What kinds of things have you been asked to reflect about?
4. Describe how you've been using reflection during this course?
5. How do you think practicing teachers might use reflection?
6. How might reflecting help you teach once you get your own classroom?
7. Have you had any opportunities to practice reflection while working with students? If so, can you describe a situation you encountered while working with students where you ran into a problem, reflected, and then took action?
8. How, if at all, do/did your own experiences as a student come into play in your reflection?
9. Can you describe the thought process(es) you go through/went through when you reflect(ed)?
10. What did you find yourself drawing on as you thought about and answered these questions (Levin, 2003)?

Appendix B
Form A—Instruction Plan and Reflection

FORM A: INSTRUCTION PLAN AND REFLECTION

Teacher: _____ Support Provider: _____

Grade/Class: _____ Subject Matter: _____ Date: _____

DIRECTIONS: Complete the left-hand side of this form prior to the lesson that will be observed by your support provider. Complete the right-hand side of the form following the lesson.

INSTRUCTION PLAN To be completed prior to the lesson	REFLECTION To be completed following the lesson on your own or with your Support Provider
LEARNING GOALS	LEARNING GOALS
<p>What are your goals for student learning for this lesson? What do you intend for students to learn?</p> <p>In what ways are these goals important to students?</p> <p>How does the content of this lesson build on what the students have already learned?</p> <p>How do these goals relate to what you plan to do in this content area in the future?</p>	<p>In what ways were these goals appropriate for your students?</p> <p>In what ways were they not appropriate?</p>

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FORM A: INSTRUCTION PLAN AND REFLECTION

STUDENT GROUPING	STUDENT GROUPING
<p>How will you group students for instructions?</p> <p>Why have you chosen this grouping?</p>	<p>In what ways was the grouping of students effective?</p> <p>In what ways was the grouping of students ineffective?</p> <p>How would you group students for similar instruction in the future? Why?</p>
INSTRUCTIONAL STRATEGIES	INSTRUCTIONAL STRATEGIES
<p>What instructional strategies will you use for this lesson?</p> <p>Why have you chosen these instructional strategies?</p>	<p>In what ways were your instruction strategies effective?</p> <p>In what ways were your instruction strategies ineffective?</p> <p>What instructional strategies would you use in the future in similar situations?</p>

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Appendix B
Form A—Instruction Plan and Reflection
 (continued from previous page)

FORM A: INSTRUCTION PLAN AND REFLECTION

<p style="text-align: center;">STUDENT ACTIVITIES</p> <p>How will you group students for instructions?</p> <p>Why have you chosen this grouping?</p>	<p style="text-align: center;">STUDENT ACTIVITIES</p> <p>In what ways was the grouping of students effective?</p> <p>In what ways was the grouping of students ineffective?</p> <p>How would you group students for similar instruction in the future? Why?</p>
<p style="text-align: center;">MATERIALS AND RESOURCES</p> <p>What instructional materials and resources will you use, if any?</p> <p>Why have you chosen these instructional materials and resources?</p>	<p style="text-align: center;">MATERIALS AND RESOURCES</p> <p>In what ways were your materials and resources effective?</p> <p>In what ways were your materials and resources ineffective?</p> <p>What different materials and resources would you use in future instructions?</p>

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FORM A: INSTRUCTION PLAN AND REFLECTION

<p style="text-align: center;">ASSESSMENT</p> <p>What evidence will you look for, from a variety of sources, that students have achieved the learning goals?</p>	<p style="text-align: center;">ASSESSMENT</p> <p>How effective were your assessment strategies in measuring the student learning goal for this lesson?</p> <p>How would you assess student learning differently in the future? Why?</p>
<p>GENERAL REFLECTION</p>	
<p>If you were going to teach this lesson again to the same group of students, what would you do differently? What would you do the same? Why?</p>	
<p>Overall, to what extent were students intellectually engaged in significant learning? What was the quality of the students' intellectual involvement, as reflected in such things as the nature of the questions of the discussions, the nature of the activities, students' pride in their work, the quality of their thinking, the depth of their understanding?</p>	

CFAST 3: Profile of Practice

Field Review Version

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