Using Critical Incidents to Promote and Assess Reflective Thinking in Preservice Teachers

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ABSTRACT The powerful influence of prior educational experiences and a varying capacity to think reflectively and critically present potential barriers that preservice teachers face in implementing the knowledge and skills learned in their teacher education programs. Teacher educators can guide students’ development of a decision-making schema by providing opportunities for students to reflect on authentic teaching experiences with feedback. This study examined the effectiveness of using Critical Incidents in a supervised field experience with explicit instruction and coaching to increase the capacity of preservice teachers to develop reflective and critical thinking skills. A three-person review panel analyzed 135 Critical Incidents. Examination of frequency and category data showed that writing Critical Incidents increased the degree of preservice teachers’ orientation toward growth and inquiry. Results of the self-assessment of growth in critical reflection revealed the emergence of an orientation akin to Dewey’s (1933) three attributes of reflective individuals, open-mindedness, responsibility, and wholeheartedness.

Introduction

The powerful influence of prior educational experiences and a varying capacity to think reflectively and critically present potential barriers that preservice teachers face in implementing the knowledge and skills learned in their teacher education programs. New teachers have the tendency to model their practice on their own K-12 educational experiences (Pajares, 1992; LaBoskey, 1993; Hatton & Smith, 1995; Wideen et al., 1998; Brownlee et al., 2001). These experiences create deeply ingrained attitudes and beliefs that constitute a ‘latent philosophy of education’, (Bolin as cited in Henry, 1999, p. 53) which is not easily changed through formal study of teaching methodology (LaBoskey, 1993). This latent philosophy must be made explicit in order for preservice teachers to critically reflect on and examine their practice in light of current research and technology. If beginning teachers are not firmly and confidently grounded in pedagogy and curriculum with an effective decision-making schema
based on reflective and critical thinking, the knowledge and skills gained in their training program may be quickly and easily obliterated (Posner, 2000). Teacher educators can guide students’ development of a decision-making schema by providing opportunities for students to reflect on authentic teaching experiences with feedback.

This study examined the effectiveness of an instructional tool, The Critical Incident (Tripp, 1993), on the ability of preservice teachers to think critically and reflectively about their practice. A Critical Incident provides a deeper and more profound level of reflection because it goes beyond a detailed description of an event that attracted attention, to analysis of and reflection on the meaning of the event. This analysis and reflection assists teachers in examining all possibilities before reaching a conclusion (Dewey, 1933) in order to deal effectively with multi-faceted problems as well as to identify the underlying assumptions governing their actions. The Critical Incident format guided preservice teachers to: (a) use the language of their profession; (b) connect theory to practice as they explain their practice; (c) connect their practice to the standards of their profession; and (d) describe how their reflection/analysis would affect their actions in the classroom and school communities. Used in the context of a supervised field experience, with explicit instruction and discussion and feedback, Critical Incidents were collected and analyzed to evaluate the effectiveness of the tool to increase preservice teachers’ levels of reflective language and thinking, their degree of orientation toward growth and inquiry, and modes of reflective thinking.

Teacher Education and Critical Reflection to Date

In the last two decades teacher education programs have increasingly focused on reflection as an important aspect of teacher formation (Dieker & Monda-Amaya, 1997; Henry, 1999; Parkay, 2000; Yost & Sentner, 2000). The general concept of teacher reflection dates back to John Dewey’s (1933) encouragement for teachers to examine the underlying rationale for their choices. He identified three attributes of reflective teachers: open-mindedness, responsibility, and wholeheartedness. Schön (1983, 1987) linked reflection to action. He described two types of reflection: reflection-on-action (debriefing after the event) and reflection-in-action (during the event). Recently, definitions of reflection and effective instructional tools to develop reflection have been examined (Hatton & Smith, 1995; Dieker & Monda-Amaya, 1997; Yost & Sentner, 2000). These researchers concurred that there is a need for the validation of the impact of strategies and activities used for the development of critical reflection. Yost and Sentner (2000) recommended that ‘research address the relationship between teacher education experiences and the development of preservice teachers’ critical-thinking abilities’ (p. 8).

Numerous avenues have been explored in the attempt to promote reflection in teacher education programs (Yost & Sentner, 2000). Additionally, underlying assumptions that must be taken into account when selecting instructional methods to promote reflection have been identified. They include:

1. Reflection is developmental in nature (Calderhead & Gates, 1993; Hatton & Smith, 1995; Kagan, as cited in Hatton & Smith, 1995) and selection of instructional and field activities needs to reflect this understanding.
Using Critical Incidents

2. Supervised field experiences are essential throughout a teacher education program (Hatton & Smith, 1995; Wideen et al., 1998; Henry, 1999) because: (a) learning occurs in authentic settings (Samaras & Gismondi, 1998) and (b) real and immediate concerns arise in authentic settings (Dewey, 1933) that allow students to actively engage in connecting theory to practice (Tripp, 1993; Shulman, as cited in Yost & Sentner, 2000).

3. Internalized schemas promote the development of sound, routinized decision-making, an integral part of the cycle of reflection (Sparks-Langer & Colton, 1991).

4. Since ‘purposeful writing is internalized into one’s ongoing thinking’ (Roland, 1995, p. 122), writing is a critical lever of learning that provides a springboard from which students can move from the specific to the general as well as develop a habit of reflection (Rodriquez & Sjostrom, 1998; Yost & Sentner, 2000).

5. Guided mentoring of the writing process can enhance reflection (Hunter & Hatton, 1998). Using a structured text may help preservice teachers to develop an internal reflective dialogue (Dieker & Monda-Amaya, 1997).

6. Dialogue helps students externalize their thinking skills and develop their points of view. Sharing reflections validates, expands, and enriches internal conversations (Costa & Kallick, 2000).

Frameworks for evaluating levels of reflection have emerged. Sparks-Langer et al. (1991) conceptualized a seven-level framework: three levels of language and four levels of thinking. The levels of language are: (a) no descriptive language; (b) a simple layperson description; and (c) events labeled with appropriate, pedagogical terms. Four levels of thinking were characterized by: (a) tradition or personal preference; (b) principle or theory; (c) principle or theory and consideration of context factors; and (d) consideration of ethical, moral, political issues.

LaBoskey’s (1993) continuum of reflective thinking examines how teachers vary in their degree of orientation toward growth and inquiry, from concrete thinkers to alert novices to pedagogical thinkers. Concrete thinkers ask ‘how to’ or ‘what works’ questions, may have either interfering attitudes and/or emotions, depend more on external motivation and specific tasks in order to engage in reflection, rely on personal experience in learning to teach, and are unaware of their need to learn. Alert novices enter programs with a fairly strong inquiry orientation, are driven by the need to know, value open exploration, have the ability and propensity for reflection, and ask ‘why’ questions. Pedagogical thinkers engage in reflection as a matter of course, have a student-orientation, are strategic, are grounded in knowledge of self, children, and subject matter, operate with tentative conclusions, and are aware of teaching as a moral activity.

Van Manen (1977) has suggested a hierarchical model of three modes or distinct levels of reflective thinking: technical, contextual, and dialectical. Ideally, these levels parallel the growth of the individual teacher from novice to expert or master teacher. The first level, technical reflection, concerns the effective application of skills and technical knowledge in the classroom setting. The second level, contextual, involves reflection about the assumptions underlying specific classroom prac-
tice and consequences of practice. And the third level, dialectical, entails asking questions about moral, ethical, or socio-political issues.

Method

The purpose of this study was to determine the effects of Critical Incidents and associated instructional activities on the reflective abilities of preservice teachers. One hundred-thirty-five Critical Incidents, written by preservice teachers during a six-week field experience, were collected and analyzed by a three person review panel. The panel evaluated the Critical Incidents for: (a) levels of reflective language and thinking; (b) degree of orientation toward growth and inquiry; and (c) modes of reflective thinking. Additionally, content analysis of a self-assessment offered information about preservice teachers’ perception of their growth in reflection abilities.

Participants and Context

Conducted at a mid-size Midwestern university, 135 Critical Incidents were collected from 28 undergraduate preservice teachers during a six-week, half-day field experience, the semester prior to student teaching. In a co-requisite course, instructional activities, including the Critical Incident tool, were used to promote critical reflection. The supervised field experience in conjunction with coursework provided these preservice teachers with authentic opportunities to think reflectively and critically (Wideen et al., 1998; Henry, 1999; Yost & Sentner, 2000). Prior to this semester, students have completed 210 hours of structured field experiences and a variety of reflective activities.

Instrumentation

A draft format of a ‘Critical Incident’ form was based on David Tripp’s (1993) four steps: (a) describe and explain an incident; (b) find a general meaning and classification for the incident; (c) take a position regarding the general meaning; and (d) describe actions to be taken. A two-part Critical Incident form was constructed using these components: a description of an incident that ‘amused or annoyed’ (Tripp, 1993, p. 20), was ‘typical or atypical’ (Tripp, 1993, p. 36), was an ‘aha or ouch’ (Posner, 2000) or a ‘felt difficulty’ (Dewey, in LaBoskey, 1993, p. 25.); and, the meaning of the incident written as a detailed reflection and analysis of the incident. The description required rich and concrete detail; the meaning required preservice students to find the generalizable aspect of the incident, link it to professional standards, elucidate their position regarding the general meaning, and select potential future actions pertaining to this meaning. It is the second half, the meaning, which makes an incident ‘critical’ (Tripp, 1993). The intent of the tool was to focus on the meaning of the incidents rather than on the experience of them.

The field testing of the format was completed over two semesters (Fall 1999, Spring 2000) with 48 preservice teachers. Review of the written Critical Incidents and class discussion prompted four major revisions to the format. An Emotions component was added to facilitate the understanding that emotions and what comes to our attention (an ‘incident’) are inherently connected (Brockbank & McGill,
1998). Second, the use of ‘I’, required when describing each player’s perspective, enriched explanations and deepened and broadened understanding of the perspectives of others. Next, the Classification component was placed before the General Meaning component to provide a single focus for discussion while demonstrating that one incident relates to many aspects of teaching/learning. Finally, preservice teachers connected their daily classroom practices to professional standards by selecting standards that were addressed in their Incidents (Table 1).

Explicit Instructional Activities

In the co-requisite course, preservice teachers learned about critical reflection through scaffolded activities (Bean & Stevens, 2002) that were developmentally appropriate, were field-based, provided a schema, and included mentoring in purposeful writing and dialogue. First, they discussed reflection-in-action and reflection-on-action (Brody, 1994) and were introduced to the components of the Critical Incident. Next, they practiced writing a Critical Incident by selecting an ‘aha’ or ‘ouch’ they experienced when watching an educational video. High quality examples were provided to students. Then, as they taught in the public schools, students completed one Critical Incident per week for five weeks.

For the first two incidents, students shared the first half, the incident, and then worked in small groups to complete the second half, the critical incident. They then finished the incident and sent it electronically to the instructor for feedback. The instructor provided a written summary of issues generated from each set of Critical Incidents, as well as individual, written feedback. In large group instruction, examples from the students’ work were used to showcase exemplary components and to practice revising those Incidents that needed expansion or a clearer focus. In small group discussions, students gave each other feedback and discussed their perceptions, thereby exercising their ‘external voice of reflection’ (Costa & Kallick, 2000, p. 61). Individual conferences were also available for students who needed more individualized instruction. Table 2 displays the third Critical Incident written by a preservice teacher.

Data Collection

One hundred and thirty-five Critical Incidents were collected electronically from 28 preservice teachers as a course requirement over a six-week period in Fall 2000. At the end of the semester, they completed a self-reflection statement regarding their perception of growth in reflective skills.

Data Analysis

A review panel (Borg & Gall, 1989) consisted of two colleagues with extensive involvement in the teacher preparation program, and me, the instructor for the co-requisite course and supervisor of the teaching field experience. Review panel participants were experienced K-12 and undergraduate educators who were well
<table>
<thead>
<tr>
<th>CRITICAL INCIDENT FORM</th>
<th>Instructional intent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Part I: INCIDENT</strong></td>
<td></td>
</tr>
<tr>
<td><strong>What:</strong> rich, concrete facts</td>
<td>Provide details (Tripp, 1993; Pultorak, 1996); Encourage recognition of the difference between fact and inference; Write without judgment or interpretation</td>
</tr>
<tr>
<td><strong>Emotions:</strong> what emotions were evoked</td>
<td>Understand the connection between what they pay attention to and their own feelings. Demonstrate that a range of emotions can be experienced throughout the process (Hargreaves, 1995; Brockbank, 1998)</td>
</tr>
<tr>
<td><strong>Why:</strong> explanation of the incident from the perspective of each participant; use ‘I’ for each participant’s explanation</td>
<td>Search the context within which the event occurred for explanations; Recognize that understanding all perspectives is an essential tool for conflict resolution and problem solving; Explore the full meaning and impact of the incident on all participants to support open-mindedness (Dewey, 1933)</td>
</tr>
<tr>
<td><strong>Part II: CRITICAL INCIDENT</strong> (Specific details from above incident are not to be discussed in this section)</td>
<td>Search for meaning within the mundane (Tripp, 1993; Hole &amp; McEntee, 1999)</td>
</tr>
<tr>
<td><strong>Classification:</strong> a list of aspects of teaching/learning/schooling illustrated by the incident; the most compelling aspect is the focus for the general meaning component</td>
<td>Explore possible meanings rather than determine the meaning (Hole &amp; McEntee, 1999). Understand that every incident has multiple facets</td>
</tr>
<tr>
<td><strong>General meaning:</strong> two to three paragraphs about the selected Classification topic; Without specific details from incident, with an explicit connection to theory, and related to the broad field of education</td>
<td>Engage students in critical thinking; Use writing as a vehicle to understanding; Connect theory to practice; ‘Bump up’ thinking from the particular to the general; Link to prior knowledge and the literature</td>
</tr>
<tr>
<td><strong>Professional standards:</strong> primary/related standards selected</td>
<td>Match appropriate standards to the critical incident; Understand that several standards can be addressed in one incident</td>
</tr>
<tr>
<td><strong>Position:</strong> summary of beliefs; ‘As an educator, I believe/value …’</td>
<td>Identify one or two personally held beliefs related to the educational issue discussed in the general meaning component (Yost &amp; Sentner, 2000)</td>
</tr>
<tr>
<td><strong>Actions:</strong> related to position, observable actions outlined; ‘As an educator, I will …’</td>
<td>Move from reflection to action to illustrate the cycle of teach-reflect-teach (Keating et al., 1998). Describe their practice in light of their new understandings</td>
</tr>
</tbody>
</table>
TABLE II. The third Critical incident written by one preservice teacher

Incident

What
My partner and I had been teaching social studies classes for about a week. We had carefully planned each lesson, and tried to plan corresponding projects that would be challenging and interesting for all of the students. Their mid-morning break was winding down and social studies was about to start. I was standing next to Amanda, a girl who sits in the back. She looked up at me, ‘Miss McIntyre, do we have to have social studies?’ I am used to hearing this, even before we started teaching most of the children let us know that they do not think much of social studies. I tried to convince her it was not so bad. She sighed ‘But all you guys do is talk.’ I was speechless, because she was right.

Emotions
First I was really surprised because I felt my partner and I had worked hard trying to differentiate the projects we assigned so they would be interesting and accessible to the students. I was also disappointed in myself, because as much as we tried to differentiate the assignments, I realized the largest portion of class was just us lecturing, and after everything I have learned in school I should know better than that. I felt guilty because looking back I realized kids have been drifting off more and more, and it took this girl telling me so to realize it. I was also grateful to Amanda for saying this to me. Sometimes it is hard to see something that is right in front of you.

Why
Amanda: I can only sit and listen to people talk about the American Frontier for so long. I’m bored. 
Beth: I am almost embarrassed that I have had all of this instruction about how little learners retain during lecturing, yet it took a student telling me to realize that was what I was doing.
Changes will be made!

Critical Incident

Classification (bold items will be focus of General Meaning)
- Teaching style
- Teacher self-awareness
- Self-assessment
- Awareness of student learning preferences/needs
- Awareness of student interest and attention span

General meaning/significance
A college student working towards a teaching degree gets a lot of information in a short period. Most universities offer field experiences to give students familiarity with the classroom and to start to put the theories they learn into practice. All of the statistics, theories, and facts in the world will not be beneficial to learners unless the teacher puts them into practice. It is easy for a new teacher, or a student teacher, to fall into traps of doing things the easy, familiar way, even if they have been told it is not effective. Teachers need to be aware of themselves and their teaching style. Careful self-assessments need to be constantly made by a teacher to make sure he or she is putting their theories into practice, and that they are effective.

INTASC Standards: 3, 7, 9

Position
As an educator, I do believe that students cannot be lectured to constantly and be expected to retain all of the information and spit it back out in a test or quiz… teachers need to develop an effective self-assessment for themselves. Sometimes student feedback is a part of this assessment. Teachers need to be aware of what they are doing as opposed to what they know.

Actions
I will make (or use a published) checklist for myself to periodically assess my methods. I will use it to check how many times I used a particular teaching style. I will try to keep from sticking with an ineffective teaching style is get and listen to student feedback. I can do this formally and informally. I understand that some students, given the opportunity, will tell me everything is boring, however, honest, (sometimes brutal), feedback from the people my instruction is supposed to be benefiting could be the most valuable tool for self-improvement.
grounded in the theoretical underpinnings of critical reflection and instructional design.

Four dimensions of the Critical Incidents were rated. (The review panel divided Sparks-Langer et al.’s (1991) seven levels for measuring and describing reflective thinking types into two dimensions, language and thinking, and did not use Level 1.)

1. Levels of language. Two levels of language were assessed: Level 2—a simple, layperson description of the incident; and Level 3—a description using appropriate, pedagogical terms. Level 1, ‘no descriptive language’, was not used because the structured and directive writing prompts of the Critical Incident form eliminated that possibility.

2. Levels of thinking. Four levels of thinking (Sparks-Langer et al., 1991) were assessed: (a) tradition or personal preference; (b) principle or theory; (c) principle or theory and consideration of context factors; and (d) consideration of ethical, moral, political issues.

3. Degree of orientation toward growth and inquiry. Placement on LaBoskey’s (1993) continuum of reflective thinking, (concrete thinker, alert novice, and pedagogical thinker), was assessed.

4. Modes of reflective thinking. Van Manen’s (1977) three modes of reflective thinking (technical, contextual and dialectical) were assessed. Although Van Manen implies that a hierarchy exists in this model, the review panel used the modes to categorize the focus or content (LaBoskey, 1993; Hatton & Smith, 1995).

Reliability figures ranged from 16 to 64% for levels of thinking and from 33 to 75% for levels of reflective thinking and degree of orientation for growth and inquiry at the beginning of training. Decision rules were honed through the consensus process. Rules generated included: (a) the distinction between a ‘theory’ and a ‘principle’ when evaluating the level of thinking; and (b) what constituted quality and quantity of pedagogical terms when evaluating the level of language. Reviewers recognized that the quality of writing must not influence their ratings. The training ended when agreement rates were in the range 75–85%. The panel met four times. Minutes of the review panel’s discussions were kept in order to document decision rules.

Review panel ratings for each dimension for each Critical Incident were tabulated. Using Statistical Package for the Social Sciences (SPSS), frequencies of use were tabulated for each dimension to examine individual and overall growth by incident (e.g. Critical Incident #1 compared to Critical Incident #2).

Results

The purpose of this study was to determine the effects of Critical Incidents and related instructional activities on the reflective abilities of preservice teachers. One hundred and thirty-five Critical Incidents, written during a six-week field experience, were collected and analyzed by a three-person review panel. The panel
evaluated the Critical Incidents for: (a) levels of reflective language and thinking; (b) their degree of orientation toward growth and inquiry; and (c) modes of reflective thinking. Content analysis of written responses concerning perception of individual growth in reflective abilities yielded additional information.

Levels of Reflective Language

No pattern was found in the use of layperson language versus the use of pedagogical terms. Overall, both levels were evenly distributed. Seventy-three incidents were written using only language a layperson might use and 61 incidents were written using pedagogical terms. The individual levels of language chosen were unrelated to the temporal order of the Incidents. Eighteen preservice teachers had a balance between using layperson and pedagogical terms; three used only layperson language; the remaining seven used one of the levels in four out of the five Incidents. No one wrote all Incidents using pedagogical terms (Table 3).

Levels of Reflective Thinking

Overall, the majority (87%) of the Incidents was written at the first two levels of thinking. The use of the tradition or personal preference level decreased and use of the principle or theory within a specific context level increased. Sixteen preservice teachers exclusively used a tradition/personal preference or a principle or theory as the rationale for the General Meaning component. Three demonstrated thinking exclusively at the highest two levels; one demonstrated all levels of thinking; and one demonstrated only the levels that used a principle with context or consideration of issues. Four preservice teachers did not use the lowest level of thinking, and one student exclusively used the lowest level of thinking (Table 4).

Degree of Orientation toward Growth and Inquiry

Applying LaBoskey’s (1993) criteria for three points on her continuum of reflective thinking, approximately two thirds of the incidents were written at the level of concrete thinker. There was an increase from 4 (Critical Incident #1) to 15 preservice teachers (Critical Incident #5) using the alert novice level of thinking. Closer examination revealed that 75% used both concrete thinker and alert novice thinking styles. Five used only the concrete thinker mode; one operated at the alert
TABLE IV. Frequency of levels of thinking

<table>
<thead>
<tr>
<th>Level of thinking used</th>
<th>Critical Incident #1</th>
<th>Critical Incident #2</th>
<th>Critical Incident #3</th>
<th>Critical Incident #4</th>
<th>Critical Incident #5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tradition or personal preference</td>
<td>11</td>
<td>13</td>
<td>14</td>
<td>10</td>
<td>10</td>
<td>58</td>
</tr>
<tr>
<td>Principle or theory</td>
<td>12</td>
<td>11</td>
<td>11</td>
<td>14</td>
<td>12</td>
<td>60</td>
</tr>
<tr>
<td>Principle or theory and consideration of context factors</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Consideration of technical, moral, political issues</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

thicker level exclusively; and one person had Incidents written at all three levels. Of note is that only one Incident, an initial one, was written at the pedagogical level (Table 5).

Modes of Reflective Thinking

Across all Incidents, 75% of preservice teachers used both the technical and contextual modes of reflective thinking. The use of the contextual mode doubled from Critical Incident #1 to Critical Incident #4. One person used only the contextual mode, and four used only the technical mode (Table 6).

Student Self-Assessment

At the end of the semester, the preservice teachers were asked to reflect on their abilities to think critically and reflectively by responding in writing to this prompt:

TABLE V. Frequencies for points on degree of orientation toward growth and inquiry continuum

<table>
<thead>
<tr>
<th></th>
<th>Level 1 Concrete thinker</th>
<th>Level 2 Alert novice</th>
<th>Level 3 Pedagogical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Incident #1</td>
<td>19</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Critical Incident #2</td>
<td>19</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Critical Incident #3</td>
<td>21</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Critical Incident #4</td>
<td>17</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>Critical Incident #5</td>
<td>12</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>88</td>
<td>44</td>
<td>1</td>
</tr>
</tbody>
</table>
TABLE VI. Frequency of modes of thinking

<table>
<thead>
<tr>
<th>Critical Incident</th>
<th>Technical</th>
<th>Contextual</th>
<th>Dialectical</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>17</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>#2</td>
<td>18</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>#3</td>
<td>18</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>#4</td>
<td>14</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>#5</td>
<td>14</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>81</td>
<td>49</td>
<td>3</td>
</tr>
</tbody>
</table>

‘In what way has the completion of Critical Incidents helped you work towards competence in Standard #9: The teacher is a reflective practitioner who continually evaluates the effects of his/her choices and actions on others and who actively seeks out opportunities to grow professionally?’ Nineteen preservice teachers perceived that the Critical Incidents improved their ability to analyze and evaluate their practice and to take multiple perspectives. There was considerably more discussion about multiple perspectives than any other component. Preservice teachers’ reflections revealed that initial reactions to an incident were tempered, that their empathy increased, that they had a greater understanding of the incident, that they gathered information about where the true problem might lie, and they learned that one can and might change the initial reaction to a situation. The following quote captures an important insight:

I was able to see past my views on the issue and to imagine what the other people were feeling in the same situation. I was able to detach emotionally from the issue for a while and allow myself to be enveloped by other people’s thoughts and feelings.

Another reported: ‘I had to use another person’s perspective and it was hard because I already had what I believed already conditioned in my head’.

Over one-half of the preservice teachers commented on the impact of two categories: (a) needing to ‘bump up’ the original incident’s specific details and connect it to broader issues of teaching and schooling; and (b) using the literature for guidance in understanding and explaining their Critical Incidents. About one-third of the preservice teachers pointed out that completing the Critical Incidents helped them grow in self-awareness, sort out the relevant from the irrelevant and the significant from the insignificant, to stop ‘blaming’ others, and to dig deeper into situations before taking action.

They also commented on the overall experience and impact of writing Critical Incidents: ‘It has taught me to look deeper within the situation as well as the child to see how not only to solve the problem but to examine it as a reflection of my teaching practice’; ‘The Critical Incidents are like ... planned thinking about thinking activities that help to integrate and make sense of who we are and why we do what we do’; And last

Reflecting on the completion of the Critical Incidents assignments, I realize
that I did a lot of evaluating of the choices and actions of others, but little about my own. Therefore, in my eyes, I have only worked on part of the competency. It is always easier to reflect on the things that others have done. It is harder to admit what I need to do ... differently.

Discussion

Overall, data analysis shows that the use of Critical Incidents and related instructional activities increased one reflective ability of preservice teachers. Specifically, the data indicate an increase in the degree of orientation toward growth and inquiry, from concrete thinker to alert thinker. The Critical Incidents appeared to assist concrete thinkers to look beyond themselves and the immediate situation to larger, contextual issues. Analysis of the modes of reflective thinking indicated that the number of preservice teachers using the Contextual mode doubled in the cycle of writing, feedback, dialogue, experience, writing. These results indicate that Critical Incidents may promote an increase in awareness of the variables that impact teaching and learning.

It is unclear why the level of language did not reflect a more pedagogical slant, given the significant amount of written and verbal feedback provided. Further study needs to examine if there is a connection between the level of language used and the topic of an Incident. Since there was also no significant change in levels of thinking, future instructional activities would need to refine dialogue and feedback to include questions that would encourage preservice teachers to examine the larger context of social and political influences. Further, it may be useful to focus on one aspect of practice for each week, so that dialogue in class could be focused on related, underlying theory. Another question to be answered about levels of thinking is whether the Critical Incident form limited reflection at the pedagogical thinker level.

Comments from the self-assessments reflect the emergence of an orientation akin to Dewey’s (1933) three attributes of reflective individuals: open-mindedness, responsibility, and wholeheartedness. One-third of the preservice teachers discussed how initially they had blamed the situation, another person, or other factors for the dilemmas in their incidents instead of assuming some or all of the responsibility, signaling the beginning of a shift from self-orientation to student-orientation. They valued the need to look at all sides of an issue from multiple perspectives. They searched deeper and more broadly for the truth, and used coursework and research to support their teaching practice. Significantly, they overcame personal fears, evaluated themselves and their fieldwork experiences, and attempted to make changes.

Three limitations of this study are apparent. First, the written Incidents may not reflect the full capability of these teachers. As noted previously, the review panel’s work was initially affected somewhat by the quality of writing. A format other than writing, such as an interview, may have elicited more information. Second, although preservice teachers understood the future usefulness of the process of completing the Incidents, the Incidents carried a relatively low weight in the grading schema for the course. Consequently, they may not have turned in their best work, making a
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Finally, the dimensions used to examine the reflective abilities were challenging to apply uniformly, although the agreement rates among panel members were adequate.

Based on the results of this study, did the Critical Incidents and related instructional activities increase preservice teachers’ capacity to think in a critical and reflective manner? Given the trend data, the answer is a tentative yes. In some ways, the process itself was a worthy goal. It helped make tacit beliefs explicit through structured writing and dialogue. It allowed preservice teachers to articulate their positions on many topics, as well as delineate specific, observable actions that would characterize their practice. This process or schema, if reinforced in the student teaching seminar, could become an automaticized schema for preservice teachers to use to examine their practice throughout their careers. Longitudinal studies that follow them into their student teaching experience and the first several years of teaching are needed.

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References


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