

**Examining Reflective Practice:  
Insights from Pre-service Teachers, In-service Teachers and Faculty**

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*Abstract*

*This study examines reflective practice of pre-service teachers, in-service teachers and teacher educators. Using Schon's in, on and for practice conceptual framework, the study addresses the following questions: Is there a disconnect between what teachers do, faculty require, and students perceive as reflective practice? What types and methods of reflection are used and perceived as the most effective? Do collective conversations about a student's teaching experience help to improve reflection in, on and for practice? The results from this study suggest that pre-service teachers can benefit from a more explicitly defined framework for reflective practice.*

*When I officially become a teacher, I hope that I can meet with the other teachers at my school and talk about lesson plans and ideas, just as we did in the video reflection. It was really a lot of help...and now I have new ideas to take with me into my teaching career.*

This statement is part of a written reflection by a pre-service teacher enrolled in a methods class that included a lab experience based at a local elementary school. The purpose of this reflective practice assignment was to encourage pre-service teachers to think critically and deeply about their teaching experiences. Reflective practice has become a common term used to describe a variety of activities in teacher education programs (Loughran, 2002). Schon (1983, 1987) defines reflective practice at its best as an experience which involves thoughtfully considering one's own experiences in applying knowledge to practice while being coached by professionals in the discipline.

Pre-service teachers are frequently required to observe and conduct lessons in schools and then "reflect" on those experiences. However, these assignments may be given without a clearly articulated definition and rationale for reflective practice (Ross, 2002). In addition, the reflective assignments are often vague, occurring along a continuum from merely thinking in retrospect about the experience to a well-defined and crafted practice leading to a specific purpose (Loughran, 2002). Specifically, writing is frequently assigned as a reflective method in pre-service teacher education courses. Writing can be an active, engaging and personal process,

allowing the author to move between the past, present, and future (Kottkamp, 1990). However, pre-service teachers are often writing about their initial teaching experiences to satisfy course requirements rather than for the purpose of deeper analysis. In addition, both pre-service teachers and instructors may find this to be a time-intensive process with varying results. Additionally pre-service teachers may be required to complete reflections for more than one course with different criteria. Instructors from different classes may be providing feedback on written reflections without a common set of expectations, standard method of evaluation, or observation of the lesson implementation.

### *Research Questions*

This article examines issues regarding the absence of a shared definition of reflective practice and makes visible current practices in the field. Research questions were as follows: Is there a disconnect between what practicing teachers do, instructors require, and students [pre-service teachers] perceive as reflective practice? What types and methods of reflection do in-service and pre-service teachers use and perceive as the most effective? Finally, do collective conversations about a pre-service teacher's teaching experience help to enhance and increase reflection *in, on* or *for* practice?

### *Theoretical Perspective*

Reflective practice is an evolving concept that has been influenced by various philosophical and pedagogical theories (Florez, 2003). Reflection can be described in three phases, or modes: (a) reflection *in practice*, or the dynamic, "thinking on your feet" a teacher does during a lesson; (b) reflection *on practice*, the reflection that occurs post instruction, when a teacher thinks in hindsight about the lesson, student engagements, and other components of the experience; and (c) reflection *for practice*, the thinking about future experience informed by the past practice...what now needs to occur coming from the reflection of the past (Schon 1983).

Using these phases to define how teachers think about their teaching, Loughran (1995) developed a framework to help make the *invisible* day to day reflective practices of teachers visible. The framework consists of "reflecting during the act of planning the lesson (anticipatory reflection), and during the actual teaching of the lesson (contemporaneous reflection), as well as after the lesson (retrospective reflection)" (Freese, 1999, p. 2). Through this process, teacher educators can employ instructional strategies to train pre-service teachers to use reflection for asking the harder, deeper and more probing questions regarding practices and to analyze the effects on our classrooms and students. This level of reflection has been described as a complex and multidimensional search for understanding, drawing from the past and the present, with implications for the future (Smith, 2001).

Despite the development of a framework, a clear definition of reflective practice remains elusive (Ross, 2002). Freese (1999), a researcher working in the field of pre-service teacher education, supports making reflective practice more explicit by calling for a shared definition through modeling and conversation about reflection. She conceptualizes reflection for her students as: "The process of making sense of one's experiences by deliberately and actively examining one's thoughts and actions to arrive at new ways of understanding oneself as a teacher" (p. 2). Duncan-Andrade (2005) describes the need for pre-service teachers to critically examine their

actions in terms of the “4 Es” of emancipatory pedagogy: engage, experience, empower and enact (p.70). These critical learning activities ultimately encourage students to examine and act out their sense of agency, imagining the best possible teaching--what could happen, rather than what did happen (Davis, 1996; Smith, 2001).

Collective conversations can lead to negotiating and engaging in different forms of reflective practice. Freese (1999) suggests that “...reflection can be enhanced when conducted with another individual” (p. 2). In the process of developing a shared definition she formed cohorts of graduate and pre-service teachers working together over three semesters. Graduate students ran mock reflective sessions and then mentored pre-service teachers in writing their reflections. Freese used videotaped teaching sessions as a prompt for reflective conversations, finding this to be the most powerful reflective practice. She described this strategy as “allowing the student and instructor to get back into the moment” (p. 7). Davis (1996) agreed that collective conversations are the most beneficial reflective method. He suggests that teachers use these conversations to link together as a pedagogical community. The community is connected through their own lived experiences, encouraging them to ‘think aloud’ in an active problem solving mode. He characterizes this as developing the ability to imagine the possibility, or what Schon (1987) calls *for practice* reflection. One pre-service teacher participant in a reflective community similarly validated her experience with the mentor: “It was just a lot easier when you know they were right there to have someone there just to talk things out” (Freese, 1999, p. 6).

Even the most experienced teachers were motivated to continue examining their teaching practices. In a school where collective conversations were scheduled as a part of a teachers’ critical friends group, participants used dialogue, questions and suggestions to build a culture of reflective teaching and learning. One participant characterized it as: “This group makes me feel like things are gonna change. I’m gonna need to change because it makes me always want to get better, and I want to offer what I have. As long as this group is available, I’ll feel professional” (Duncan-Andrade, 2005, p.73).

Korthagen (1993) encouraged teacher educators to use what he called irrational forms of reflection as a part of their methodology instruction. He contrasted this to teacher education courses where teaching is prepared for as a linear and predictable practice. His innovation included the use of guided imagery to help pre-service teachers examine their preconceived notions of what their expectations might be compared to the actual day to day unplanned for acts they might encounter in the classroom. Korthagen described the decisions that fill a teacher’s day as the type that new teachers are often unprepared for, and that may lead beginning teachers to feel less competent at meeting students’ needs, feel a lack of closure to their professional day, and promote feelings of failure. The negative self images may then lead to decreased teacher retention rates.

In order to help alleviate some of the beginning teacher jitters, Cushman (1999) suggests that teacher education students should be provided with “the distinct advantage of an intimate knowledge of the school and community culture, with expectations for continual professional development” (p.1). By providing authentic models of teachers’ professional conversations about their teaching, with mentorship experiences, pre-service teachers can begin to experience more of the decision making processes they will encounter in the classroom. Education faculty must offer

pre-service teachers access to authentic teaching experiences while strengthening the reflective practices used by pre-service teachers and the in-service teachers who support them (Davis, 1996; Duncan-Andrade, 2005; Freese, 1999; Loughran, 1995; McIntyre & Byrd, 1996; Schon, 1987; Smith, 2001).

### *Research Context and Methods*

Both quantitative and qualitative methods were used to examine the frequency and preferences of reflection by in-service and pre-service teachers. Pre-service teachers' collective conversations and subsequent written reflections regarding their teaching experiences were examined for discourse markers showing depth and growth of reflective language. Faculty from the university school of education was surveyed regarding their modeling of and use of reflective practice assignments.

### *Setting and Participants*

The study was conducted in a small southeastern city with a wide range of economic, linguistic and cultural diversity. The setting was selected as a site for the study in part because of the established relationship between the researchers, the participating schools and the university. The in-service teacher survey was conducted at two participating schools within the school of education professional development system. The researchers enlisted the participation of two principals of two urban schools via email to invite them to participate in the study. The principals sent information regarding the project and the survey URL to all teachers in their respective schools. Within the two schools, twenty-seven teachers volunteered to participate by completing the survey.

The faculty survey was administered to part-time and full-time faculty in the same teacher education program. Faculty was invited to participate through an email that described the project and provided the survey URL. Twenty-one faculty members volunteered to participate by completing the survey.

Researchers sent an email describing the project with an invitation to participate, including the survey URL, to pre-service education students enrolled in methods courses. The participants were selected because their course assignments required them to write lesson plans that were submitted to the instructor for approval. The lessons were then implemented in a supervised classroom or educational lab setting. Sixty-eight pre-service teachers volunteered to participate by completing the survey.

In addition, these pre-service teachers gave consent for researchers to access their written reflections for further analysis. These written reflections were collected over three semesters and in three different formats: as a required element of the university's school of education standardized lesson plan; as learning logs or journals; and as electronically-submitted reflections written after pre-service teachers participated in a collective conversation. These conversations were prompted by a class assignment common to the methods courses in which pre-service teachers were required to make video recordings of their teaching throughout the semester. The video protocol was introduced to students as a support activity, an opportunity to get feedback

and ideas on a problem they perceived in their teaching, rather than a time to show success or expertise. Students used video cameras purchased through a school of education grant to record multiple sessions of their teaching. They then chose one clip to share. The video sessions began with the presenting pre-service teacher introducing the video clip with a critical question regarding the lesson. The cohort group then viewed the video clip, taking notes to use in the follow-up discussion. The presenter reiterated the critical question and then became the responder, as her cohort group asked clarifying questions and provided constructive feedback. The instructor facilitated the session, purposefully acting as note-taker rather than discussant. Pre-service teachers reviewed a minimum of five and no more than ten teaching clips of cohort members who led their own critical discussions. A written reflection about their teaching clip and the feedback from their cohort group was then electronically submitted.

### *Surveys*

Online surveys were administered to 90 pre-service teachers enrolled in field experience classes, 70 in-service teachers at two schools within the professional development system partnership, and 53 faculty members in the school of education. Survey instructions included Kottkamp's (1990) definition of reflective practice (p.183). "A cycle of paying deliberate, analytical attention to one's own actions in relation to intentions -- as if from an external observer's perspective -- for the purpose of expanding one's options and making decisions about improved ways of acting in the future, or in the midst of the action itself". Surveys were designed to include open-ended response items and checklists, in addition to questions with a Likert-scale response (i.e., never, seldom, sometimes, often). The responses on the open-ended and short-answer items provided rich data on trends related to reflective practices within and across the groups of participants.

### *Survey Analysis*

For each item in the survey, the computer software computed response percentages. The following sections describe the data analysis procedures for the different types of items on the survey.

*Checklists.* The survey distributed to pre-service and in-service teachers included three checklist items regarding frequency (i.e. never, sometimes, or often) and preference for types of reflective practices (i.e., writing, internal dialogue, conversation, and as a component of lesson planning). The survey distributed to faculty included two checklist items regarding methods and rationale for reflective practice assignments. On all surveys, an "Other" category was provided for open response on each checklist item. Participants were required to select one response per item.

*Open-ended responses.* Five items in the surveys distributed to pre-service and in-service teachers required open-ended responses about the types, the setting, and the collaborators with whom participants used reflective practice: (a) When do you most often engage in internal dialogue? (b) When using writing for reflection, what tool(s) do you use? (c) What types of comments do you include in your lesson plan regarding reflection? (d) With whom do you most often engage in conversation regarding your teaching? And (e) Please insert additional comments regarding your experiences with reflective practice.

Four items in the surveys distributed to the faculty required open-ended responses regarding assignments, rationale for teaching reflection, and evaluation methods: (a) You assign reflection as a component of reflective practice to encourage students to...; (b) What method(s) do you use to teach reflective practice to students?; (c) How are students' reflective practices evaluated in your class?; and (d) Please insert additional comments regarding your experiences with reflective practice.

*Likert-scale items.* The pre-service and in-service teacher surveys included seven Likert-scale items. Participants selected one response per item regarding the frequency of engagement in reflection *in*, *on*, and *for* practice (Schon, 1983) and preference for methods used for reflective practice. The faculty survey included four Likert-scale items related to the frequency of teaching reflective practice per semester and the frequency of instructional method used (i.e., conversations in class, online conversations, and written reflections).

In order to examine the practices across pre-service teachers, in-service teachers, and faculty responses of matched items were compared. Researchers looked for trends in (a) frequency of reflective practices; (b) preferences for methods; and (c) the types, the setting, and the collaborators with whom participants engaged in reflective practices. To further examine the findings of the surveys and the effectiveness of assigned reflective practices, researchers collected written reflections from the learning logs and lesson plans of pre-service teachers.

#### *Analysis of Pre-service Teachers' Written Reflection Assignments*

Written reflections included as required components of lesson plans, learning logs and video reflections were examined. The primary purpose was not to look for further validation of reflective practice but rather to get a sense of the depth of the reflective practices through examining the written language. The protocol for analyzing pre-service teachers' written reflection assignments was modeled after Schon's (1983, 1987) *in*, *on* and *for practice* conceptual framework. Learning logs related to teaching experiences and the reflection component of lesson plans at the beginning and end of an academic semester were analyzed for evidence of reflection *in*, *on*, and *for practice*. For every reflection, the data were coded and entered on a master grid to show development, frequency, and depth of reflective practice based on Schon's three categories. Statements were analyzed for key terms (e.g., "Next time I will" as evidence of reflection *for practice*, "I realized as I was teaching that I needed to" as evidence of reflection *in practice*, "Now I know" as evidence of reflection *on practice*) indicating level of understanding of reflective practice. Statements were also coded as retelling if they listed only the events of their lesson or summarized with little to no analysis. These written reflections about their teaching clip and the feedback from their cohort group were submitted electronically.

### *Results*

#### *Surveys*

In-service teachers, pre-service teachers, and faculty reported frequent use of reflection. While 100% of in-service teachers reported that they used reflection *in*, *on* and *for practice*, 92% of the

pre-service teachers reported using one or more of these types of reflection. Eighty-one percent of faculty indicated that they required reflective practices in their courses.

While in-service teachers reported the use of reflective practice at a higher frequency than pre-service teachers, both groups reported the use of reflection *on* practice as the type of reflection used most often (See Figure 1). In-service teachers, however, used reflection *in* and *for practice* at a much higher rate than pre-service teachers. Almost twice as many in-service teachers reported the use of reflection *in practice* as pre-service teachers.

Additionally faculty members were asked to state their purposes for reflective practice assignments. Table 1 includes examples of faculty responses showing the broad range of statements, coded as *on* and *for practice*.

Figure 2 shows the method(s) pre-service and in-service teachers used most frequently to reflect. Both groups reported using internal dialogue and conversation more frequently than any form of written reflection (e.g. learning logs, journals, electronic journals, and lesson plans). The frequency of written reflection was higher among pre-service teachers than in-service teachers. Eighty-four percent of faculty members reported some form of writing as a required method of reflection in their classes.

Table 2 shows the methods faculty use to teach reflective practice and evaluation techniques for reflective assignments. Discussions, modeling, journaling and role playing, are examples faculty listed. Responses to the question regarding evaluation techniques ranged from informal assessments, to points for participation, to rubrics.

Figure 3 shows the reflective practice methods perceived by in-service and pre-service teachers as the most effective. Of in-service teachers, 35% reported internal dialogue and 31% reported conversation as the most effective methods. Of pre-service teachers, 28% indicated that writing and 26% reported conversation as the most effective methods.

Forty-four percent of in-service and 34 percent of pre-service teachers would like to use conversation more frequently for reflection. Thirty-six percent of in-service and 32 percent of pre-service teachers chose writing as the method they would like to use more frequently (See Figure 4).

### *Pre-service Teachers' Written Reflection Assignments*

*Beginning of semester.* Analysis of initial written reflections (i.e., from the beginning of the semester) indicated very little use of reflection *for practice*. The following excerpt shows an example of one pre-service teacher's (Student A) initial written reflection. The coding of key reflective terminology indicates the use of written reflection *on practice* as the primary purpose.

I had a few problems with students saying the wrong sound intentionally like for /r/ they said /grrr/ because it's funny.  
The hall is a terrible place for a reading lesson.  
I am wondering if it may be better to stop and wait for people to walk by then start again.

Furthermore, analysis indicates that pre-service teachers' written reflections *on practice* typically emphasized emotional responses to the teaching experience with few attempts to examine teaching styles and techniques. The following excerpt shows an example of one pre-service teacher's (Student B) initial written reflection. Her consistent emphasis on affective responses to the teaching experiences was typical of pre-service teachers' initial reflections.

There were times during the lesson when I felt a little unsure of myself especially when I am writing on the overhead, I am worried about spelling things wrong: I also at one point thought I might have put the wrong answer when going over the morning message, but I checked back in the book and it was right, or it worked). I was still a little nervous but not as much. I think the lesson as a whole went pretty smoothly. It definitely had its bumps, but I think it went ok. I had fun. I have fun everyday though. I really am going to miss this class.

Some pre-service teachers' entries primarily consisted of summary statements. These statements did not include details or explanations of why the event worked or did not work in the context of the classroom. The following excerpt gives an example of a pre-service teacher (Student C) who used written reflection to retell the events of her teaching experience in a linear fashion with little to no analysis.

I thought this lesson went rather well. The kids seemed to be interested in the picture walk through the book and identifying the initial and final sounds.  
The students did really well at the centers today.  
They really enjoyed reading *One Red Rooster* with me and making the animal sounds as we read.

*End of the semester.* Analysis of written reflections from the end of the semester indicated increased use of reflection *for practice*. The following shows an example of the pre-service teacher, Student A's entry taken from a final reflection. The coding of key reflective terminology indicates the use of written reflection *for practice* as the primary purpose, as compared to the same student's reflections *on practice* as reported above.

I need to practice before teaching because the pattern doesn't make sense at this point. I am still learning names and faces so I need to work on that. I'm looking forward to more teaching to gain the confidence and the pacing needed.

Analysis also indicated that pre-service teachers' written reflections demonstrated fewer affective statements, with a greater focus on teaching styles and practices by the end of the semester. The following excerpt is an example of a pre-service teacher Student B's entry which shows reflective language taken from a final reflection.

Today at my station we reread the story of the week and answered the questions at the end. I tried calling on random people saying if they weren't ready I'd move on, but that didn't work as well as I thought it would. First of all, I should have done like Marcee did and have them each read a sentence or two because reading page by page made it hard to tell if somebody wasn't ready to turn the page.



Additionally, no pre-service teachers' entries were coded as "summarizing only" at the end of the semester. The following is an excerpt of pre-service teacher Student C's two-page written reflection submitted after being a part of a collective conversation and video reflection in class. Notice the contrast between her initial reflection emphasizing retelling above and this example of reflection *for practice* and the ideas she presented for the next time she teaches this objective.

To save time, instead of drawing each shape and then writing the defining characteristics, I could have had the shapes pre-drawn and cut out. I could have put tape or magnets on the back of the shapes. This way the shapes would have been more precise because I would have had more time to work on them, and then I would have time to go around and help the students if needed. I could have also used the overhead, just to change things up a bit. Another good idea I learned from the video reflection would have been a sorting activity. I could have divided the class into small groups, and given them some polygons to sort. This hands-on activity would get the students more involved, give them practice with the polygons, and encourage working as a team. When I officially become a teacher, I hope that I can meet with the other teachers at my school and talk about lesson plans and ideas; just as we did in the video reflection. It was really a lot of help. And now I have new ideas to take with me into my teaching career.

### *Discussion*

This study addressed issues regarding the absence of a shared definition of reflection and made visible current practices in the field. Specifically the research examined the difference between the reflective practices of in-service and pre-service teachers. It also examined instructional and evaluation methods being used by faculty members in teacher education courses as compared to reflective practices being used by in-service teachers.

#### *Types of Reflective Practice Used*

A difference was found between the reflective practices of in-service and pre-service teachers in that the majority of practicing teachers reported the use of *in practice* reflection while few pre-service teachers reported reflection of this type. This may be due to pre-service teachers' perceived lack of control in making pedagogical decisions. In addition, they may not have a repertoire of strategies and tools to change course *in practice*. This relates back to what Duncan-Andrade (2005) refers to as the third of the four E's of emancipatory pedagogy...engage, experience, empower and enact (p.70).

Reflective journals were listed by faculty as commonly required assignments. A journal is typically defined as a tool used to document personal thoughts, feelings, and narratives. This is in contrast to Freese's (1999) definition of reflective practice which states its purpose is to help teachers modify and improve instructional practices by asking probing questions. Analysis of pre-service teachers' written reflections frequently included summaries of the teaching sessions. Furthermore, these retellings often included affective statements related to emotions experienced during the lesson, similar to a journal entry. This may explain the occurrence of egocentric

affective statements, lengthy retelling of the events, and statements that give minimal information.

The disparity between what in-service teachers do and faculty require of pre-service teachers in reflective assignments supports the idea of calling for a shared definition of reflective practice (Freese, 1999). Faculty's responses to the survey regarding purpose and evaluation for teaching reflective practice methods indicated a wide range of expectations and criteria for evaluation. While several faculty members stated that they used rubrics, no examples of evaluation criteria were given and no common rubric was identified. Within the descriptions of reflective assignments, faculty listed methods included in the checklist from the survey, but also included a wide range of activities, such as responding to newspaper articles and completing self-evaluation forms.

#### *Methods of Reflective Practice Used and Perceived as Most Effective*

Of the four methods listed on the survey of reflective practices (internal dialogue, writing, lesson plans, and conversation) results show that the methods of reflection that both in-service and pre-service teachers used most frequently were internal dialogue and conversation respectively. Overall in-service teachers reflected at a higher rate than pre-service in all categories with the exception of categories related to writing. For in-service teachers writing may seem less efficient and more time consuming in the course of the school day, whereas inner dialogue and collective conversations are natural components of the pedagogical community. On the other hand written reflection is a requirement for pre-service teachers in many of their courses as described in results of the faculty survey.

Surveys also revealed that pre-service teachers perceived writing as the most effective method of reflective practice. This too may be influenced by the fact that instructors reported frequent written reflective assignments with less consistent descriptions of conversation as reflective practice. In-service teachers reported that their most effective forms of reflective practice were conversations and internal dialogue respectively. As Freese (1999) suggests, "...reflection can be enhanced when conducted with another individual" (p. 2).

#### *Changes in Reflective Practices*

Smith (2002) described reflection in its most useful form as characterized by a complex and multidimensional search for understanding drawing from the past and the present, with implications for the future. These thoughtful practices can be a useful tool during "pre-active, interactive and post-active phases of teaching" (p 2). When collective conversations were used in the methods classroom *for practice* reflection increased. Pre-service teachers in their cohort groups were allowed to get back into the moment by becoming "outsiders" looking in at the classrooms. Supportive comments from the collective conversations around a pre-service teacher's experience appeared to help her as they went through a lesson analysis of why the lesson was more or less successful for her students. It gave her concrete ideas for modifying her instruction at a level that was tangible for her...in other words it provided a scaffold for understanding by a group of her own peers. Providing this collective conceptual lens proved useful in assisting students to reflect in writing *on* the lived teaching experience, expressing a

personal and deliberate search for meaning to enhance the experience. Follow-up written reflections provided a forum to analyze what was going on and then make sense of recommendations for what they would change in their future practice. These findings were consistent with Davis (1996) and Freese (1999) who agreed that collective conversations were the most beneficial reflective method, suggesting that these conversations link teachers together as a pedagogical community.

### *Limitations of the Study*

Although pre-service teachers participated in field experiences in several different schools within the university's professional development system, surveys were limited to teachers in the two schools where the researchers had a professional connection with the principals and teachers. This helped researchers gain access but limited the number of participants.

Another concern was in the design of the survey items. The phrasing of the questions differed among participants, requiring the comparison of item responses across emerging themes rather than item by item (e.g., frequency of reflection was asked of all three participant groups, but the questions were asked particular to each audience).

In the case of pre-service teachers' survey results, responses may have been influenced by the fact that some types of reflective practice were required while others were not. Pre-service teachers responded that they valued writing as the most effective form of reflective practice and inner dialogue as the least. The responses may have been influenced by the fact that written reflections were required components of the class whereas inner dialogue could not be assigned or evaluated.

Finally, although we clearly made this process anonymous, the responses may have been influenced by the perceived role of the individual administering the survey. Researchers, who were also the course instructors, administered the survey to the pre-service teachers. Principals at the participating schools sent emails suggesting that practicing teachers complete the survey. This may have influenced how participants responded to questions regarding preference (i.e., "Which methods are most effective for reflective practice?" with lesson plans being a predisposed choice because of its status as a required form of reflection in class and/or the workplace.)

### *Implications*

In our own reflection of this data we have discovered that pre-service teachers may benefit from a more explicitly defined framework for reflective practice. One way to achieve this would be for instructors to use Schon's definition of reflection as a three part model: *in*, *on* and *for practice*, with reflection *in* and *on practice* having implications *for future practice*. This could include modeling effective reflective practice in class by the teacher educator, providing rubrics that include the three phases of reflective practice as formative assessments, and avoiding general terminology such as journals and learning logs. Another model for reflective practice could occur between the in-service and pre-service teacher, with increased conversations and sharing of products that show how reflection informs future practice.

In our practice we are seeing a trend of more teacher educators using more collective conversations around video reflections as an instructional tool. In our own classes we have included a structured video reflection protocol. Students choose a video clip of a teaching session in which they need help *for practice*. With this clip they come up with written responses to the following questions, taken from Davis' *Tools for Teaching* (1993): What went well? What didn't go well? What did the children enjoy the most? What did the children enjoy the least? What three things would I change the next time I teach this? Students present their video clips to their cohort group and receive oral and written comments using a plus-delta or other form of feedback. Students then write a reflection *for practice* using feedback from the collective conversation. We have seen a positive impact on the use of reflective language from this more collaborative approach to reflection.

At the university level we see a trend toward more collective conversation. Our University Center for Teaching Excellence has begun a program called the Faculty Lecture Society. This program is to encourage faculty reflection through conversations and shared video clips in a supportive atmosphere. A description of this program is available at <http://uncw.edu/cte/resources/lecturersociety>.

In-service teachers reported the use of reflection *in, on and for practice*. They also expressed a desire to increase conversations, the method of reflective practice they identified as being most effective. Therefore, faculty may be more successful in helping pre-service teachers demonstrate the same methods of reflective practice if they modify their assignments to include collective conversations. Our research showed that this may be best achieved by requiring pre-service teachers to audio and/or video tape their teaching to share in a collective conversation with peers. As Loughran (2002) suggests, written reflection following a collective conversation helps pre-service teachers to extend their learning and develop a common understanding of their experiences. By including collective conversation with subsequent written reflections *for practice*, pre-service teacher educators should be encouraged to support their students in changing their perception of reflection from a "done" to a more proactive "doing" and "would like to be doing" (Smith, 2001, p. 4).

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Table 1  
Faculty's Purposes for Reflective Practice Assignments

Participant #	Statement	Code	Other
001	Help them construct knowledge from their learning experience, to think about how their teaching has influenced their students and revise lessons so that they can meet the needs of the diverse learners in their classrooms.	On For	
002	...describing the three science lessons with comments on what went well and what you would have done differently	On For	
004	Revise their teaching practices	For	
006	Examine their beliefs about students and curricula		Critical analysis of curriculum
009	Think about how they view other students who do not share their same cultural or linguistic background		Critical analysis of their teaching practices from a socio-cultural perspective
010	To complete the professional evaluation tool		Meet a requirement
011	Challenge the status quo of teaching and school practices		Critical analysis of practices
015	Examine their teaching events and use the analysis to impact their teaching practices	On For	

Table 2  
Faculty Teaching and Evaluation Methods Regarding Reflection

Participant #	Teaching methods	Evaluation techniques
001	Class discussions, giving examples, written comments	Informally through formative assessment and with a rubric that considers depth of reflection and suggestions for modifying instruction
002	Large and small group discussion as well as written reflections	Students are evaluated on writing style and content. Discussions are evaluated on participation
003	Modeling	Rubric
004	Discussion, journals, lesson records, portfolio	Personal conferences
005	Discussion -group and individual	Sometimes not graded, sometimes a rubric is provided Sometimes students self-assess
006	Socratic questioning, media	Rubrics, response charts, peer evaluations
007	I simply have them reflect at every opportunity. I encourage them to think about not only what they might improve but what they like about their work.	It depends upon the class. Generally they are included as a part of rubrics that I create for assignments. They are given a portion of the overall grade.
008	Cognitive recall combined with behavioral analysis of situations	Largely by self-reporting as I do not have the time to observe their performance in the field, therefore, I accept their analysis if the reflective practice was complete and thorough.
009	Journaling	Level of detail in reflection description and analysis
010	Fill out professional evaluation tool	Assign points to grading rubric
011	Analysis of lesson plans Peer and self assessment Models of reflective practices to compare with	Peers and instructor review, discussion and “pre-post” portfolio evidence
012	Discussions (on-line and face-to-face), Writing as a part of lesson summarization	Lesson plan analysis
013	Writing, discussion, modeling	I don't evaluate the content of

		their reflections (i.e. I don't put much value in what they say) but rather in the quality of their "digging deep" effort in the reflection
014	Reading and discussion of newspaper and magazine articles, and case studies Individual and cooperative/collaborative in-class and online activities	Self-evaluations Informally via verbal and written feedback Formally, using a graded rubric
015	Group interactions and discussion items, role plays, samples	Their reflections are graded based on their level of reflective thought as opposed to an evaluation of what they write
016	A variety of graphic organizer formats designed to extend and connect thinking, guided reflection questions, feedback on writing that identifies strengths and areas for growth, rubric to assess reflections, classroom discussions on reflection, viewing examples of reflections	Rubrics, feedback
017	Guided discussion questions	Use of a rubric
018	Discussion, modeling, observation activities, readings, peer evaluations, self-evaluation	Participation, papers, synthesis and evaluation activities



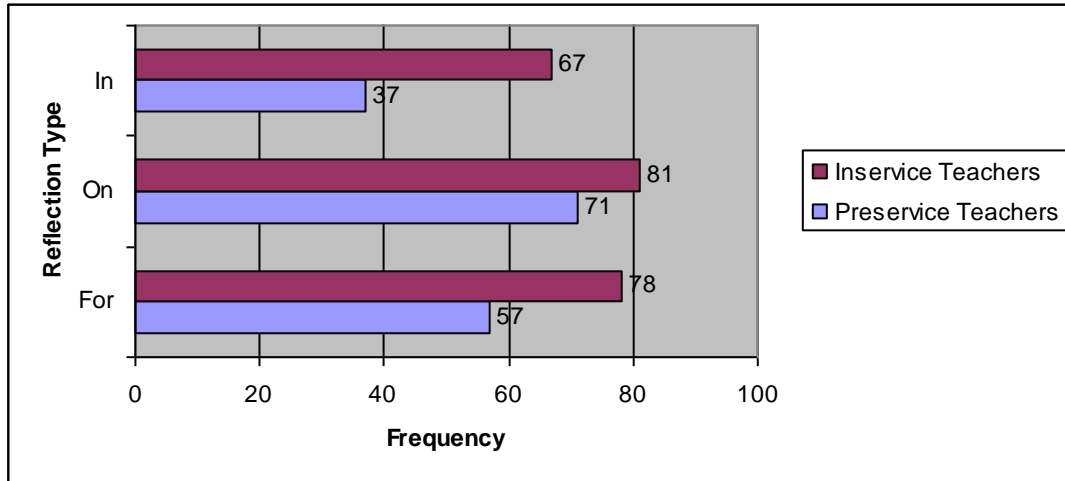


Figure 1. Type of reflection used most frequently by participants

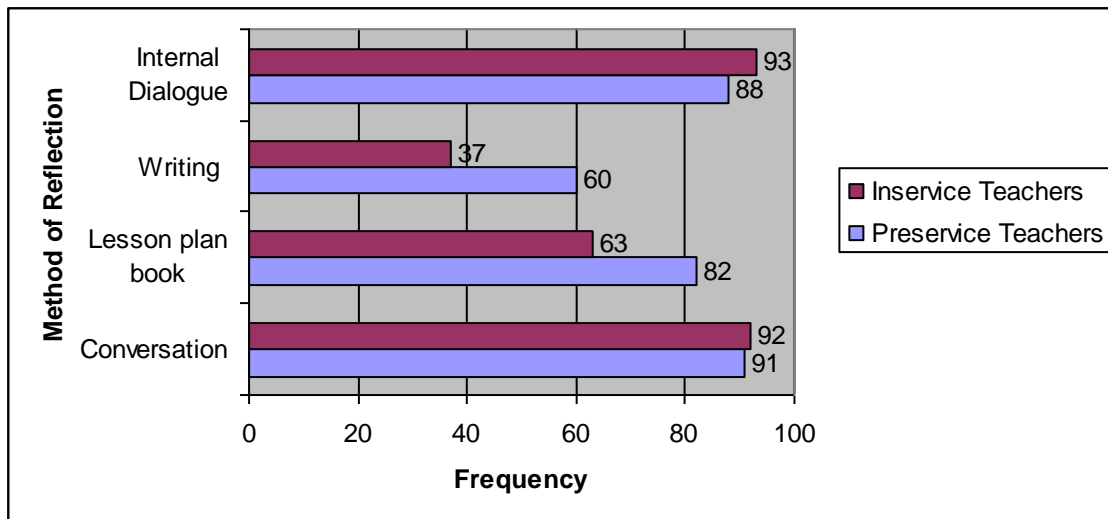


Figure 2. Methods used for reflective practice

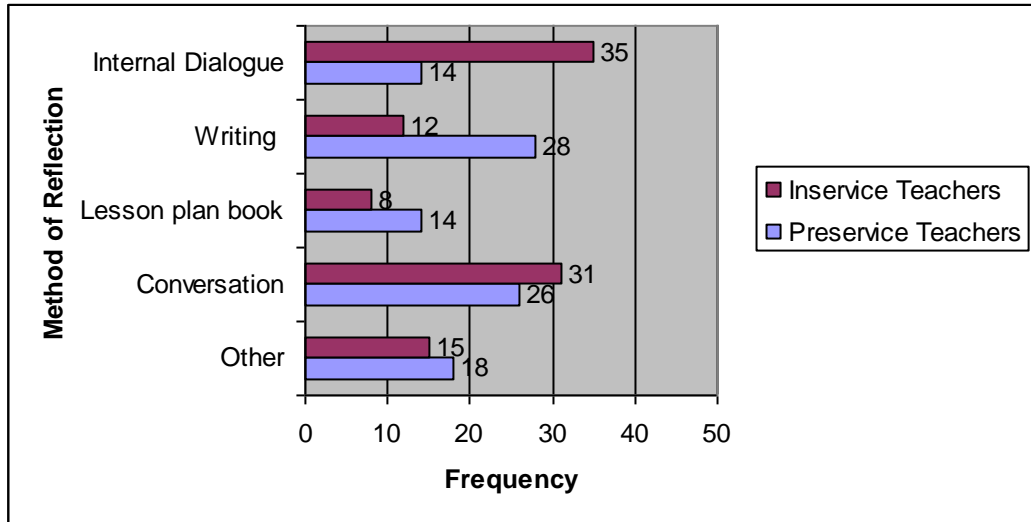


Figure 3. Methods of reflection believed to be most effective for reflective practice

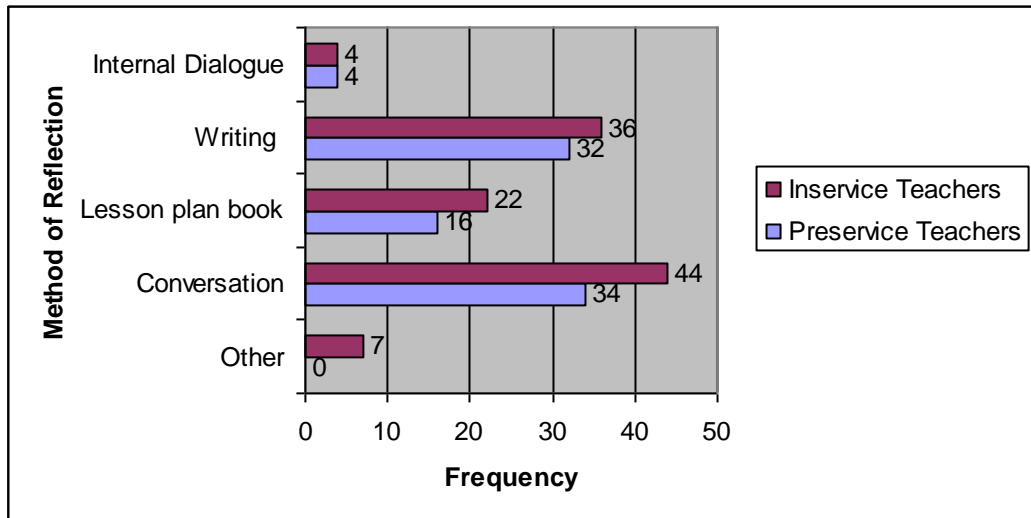


Figure 4. Method of reflection participants would like to use more frequently