
Teacher Reflection: Researching our own Practice

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Introduction

Knowledge is based on the process of inquiry. The concepts of inquiry-oriented education and, more specifically, teacher reflection have been discussed in the literature for some time (Alvermann, 1990; Cochran-Smith & Lytle, 1990; Dewey, 1916, 1929; Roth, 1989; Schon, 1983, 1987; Smyth, 1989; Tom, 1985). The process of inquiry-oriented education is a problem-solving approach that addresses professional growth and instructional effectiveness by seeking to enhance the context of the learning situation. It personalizes the learning experience by employing the notion that learning is rooted in experience. Through reflection, teachers become responsible for improving their own practice by questioning and examining their practice in order to clarify certain beliefs and construct new options. Becoming a "reflective practitioner" enables teachers to explore past experiences and seek alternative solutions to their established practices. In addition, reflection allows teachers to contemplate problems of dissonance--what happens when new knowledge conflicts with existing beliefs (Festinger, 1957), and practical argument theory--arguments based on intuitive actions that teacher use to defend practice (Fenstermacher, 1986). Finally, reflection allows teachers to become part of the research process; research can be done with teachers and not on teachers.

Building a Theory

Summative assessment, conducted when an "expert" enters the classroom armed with a checklist of criteria to evaluate performance

according to some preconceived notions of excellence or success, may have its place in the process of teacher evaluation for effectiveness. However, it is limited by the lack of involvement and investment from the teacher. Formative assessment, on the other hand, is a process of reflection and of taking an active role in looking at what teachers do in the classroom as well as what they believe about learning and teaching that affects behavior, practice, and effectiveness. Cochran-Smith & Lytle (1990) have noted:

What is missing from the knowledge base for teaching, therefore, are the voices of the teachers themselves, the questions teachers ask, the ways teachers use writing and intentional talk in their work lives, and the interpretive frames teachers use to understand and improve their own classroom practices. Limiting the official knowledge base for teaching to what academics have chosen to study and write about has contributed to a number of problems, including discontinuity between what is taught in universities and what is taught in classrooms, teachers' ambivalence about the claims of academic research and a general lack of information about classroom life (p. 8).

One way to begin reflection is to examine what we, as educators, believe. These belief systems can be described in a variety of ways. We can examine a teacher's basic approach and teaching style if only to catch a glimpse of the foundation for the practice we observe. Some teachers work from skill to concept--a "bottom-up" approach; some teach from concept to application--a "top-down" approach (Gove, 1983). Some teach as executives or managers of knowledge, some as therapists who work to stimulate student potential and enhance student growth, some as liberationists intent on making the world a better place by helping students develop into more productive human beings (Fenstermacher & Soltis, 1986). Whatever the beliefs that serve as a basis for practice, it is often the case that we, as teachers, are not very conscious of them. We are more conscious of our behaviors (and others are, too), but some educational psychologists contend that we cannot make significant changes in behavior or in practice until we understand and become conscious of the underlying belief system or systems that drive our practice. We can teach the names and descriptions of various teacher belief systems, but only through self-reflection will teachers come to know about their own beliefs.

Furthermore, Fenstermacher & Soltis (1986) added that education is not so much supplying the knowledge or beliefs from one person (teacher) to another (student), much less supplying the isolated skills, but rather education is providing the means to gain access to and continue the construction and growth of knowledge. When we supply teachers with the "means to structure their experiences in ways that

continually enlarge their knowledge, reasons, beliefs, understanding, autonomy, authenticity, and sense of place. . . [and] assist teachers in framing the practical arguments undergirding their actions" (p.46), we can then teach them ways to critically analyze these beliefs toward reconsideration and behavioral change or improved pedagogy. Kenney (1991) further strengthened Fenstermacher's argument.

I am convinced that a teacher's beliefs about learning are the very foundations of that teacher's true instructional program. In teacher research, the process of examining those beliefs is initiated and controlled by teachers. The change process becomes personal. The research question has arisen from a real need in the classroom. The teacher researcher is making decisions about instruction based on what he or she newly understands and believes about learning. . . These new beliefs are the result of critical observation of children in learning situations in the classroom. This examination, refining, restructuring, and reformulation of beliefs about learning theory leads to real change in instruction. The instructional decisions have a new kind of integrity (p. 22).

Classroom research that is teacher/student based, formative in nature, and grounded in belief systems that are becoming conscious, is necessarily reflective. Some things we can know before we do them; some we must learn about during the process and through reflection. It is time to respect personal knowledge as a means of enhancing classroom practice, both ours and that of those whom we prepare to become teachers. We must encourage and convince them that they are also learners and that learning about their own teaching is what makes them researchers as well.

Uses of the Model

We believe that authentic teacher reflection encourages self-assessment and allows for multiple ways of looking at ourselves as educators. The model discussed here (Valeri-Gold & Olson, 1992) was established with that idea in mind. Also, the model was designed not only within the theory of inquiry but also within the concept that self-reflection is imperative for effective change and improvement in the classroom. The ideas behind formative assessment, teacher beliefs, and teacher as researcher, further serve as foundation for the model. The model focuses on providing the means demanded by Fenstermacher (1989) for constructing knowledge. By employing this problem-solving model for reflective inquiry, a teacher can construct meaning through participant observation and interaction with others. We further believe that it is through interaction with others that we come to understand ourselves better. The model helps take the "fuzzy" and give it structure

so a teacher can view instruction in a new way. To demonstrate this, we present two scenarios employing the model and conclude with some implications for research and pedagogy.

The model was originally intended to be used within the context of a response journal (see Table 1). Through writing in a six-step, linear progression, teachers PRESENT a relevant issue for consideration, CLARIFY the issue in terms of previous experience to further enhance understanding, and EXAMINE the issue by posing investigative questions. Step Four asks the teachers to ANSWER the questions by consulting sources, colleagues, or expert opinion, ASSESS new understanding of the issue based on information gathered, and finally reconsider, refute, or reaffirm beliefs and practice in Step Six--FEEDBACK. We first employed the model to help us understand what happened in a developmental studies reading/composition class we were team-teaching when a lesson had failed to work as we had planned.

Table 1

Inquiry-Oriented Response Journal Model

Stage	Rationale	Procedure
PRESENT	To encourage the processes of self-reflection, decision making and problem solving by presenting relevant issues for discussion	State the issue and identify key words and concepts
	To activate teachers, prior knowledge and establish a base of understanding	
CLARIFY	To visualize and question social, political, economic, and cultural implications of responses, decisions, and solutions to further clarify the issues	List external and internal factors affecting the issue
EXAMINE	To examine the issue by posing relevant questions	Propose questions investigating the issue

ANSWER	To enhance the processes of inquiry and self-reflection by investigating relevant current research	Consult outside resources and cite expert opinions
ASSESS	To seek possible alternatives and further personalize the self-reflection process by thinking, probing, and qualifying personal responses	Formulate responses
FEEDBACK	To reconsider and reaffirm personal beliefs, practices and attitudes about teaching and learning To adapt or change currently held assumptions for which there is research to confirm or refute beliefs	Establish collegial dialogue

Application #1

The assignment instructed the students to answer selected questions about their first learning experiences, interview a classmate on the same topic, consider common themes that emerged from their own responses and those of the classmate, and write an essay comparing learning inventories. Within minutes, a third of the class had completed the assignment and were looking around for something to do while the rest were busily working. Those who had finished early had completed the task inadequately and were confused as to why others were still working so diligently. After class, one of us wrote the following entry in our journal:

I'm starting to ask myself some questions about this particular incident and, as I think back on the other times I have used this assignment or even this particular teaching technique (that is, give the assignment, explain it, allow students to complete in small groups), I have seen a similar situation. Some students finish early and don't seem to understand why they haven't really "completed" the assignment—do you know what I mean? Maybe I could organize the assignment differently or revise the directions. Do I need to be clearer in my expectations? More specific in what I want? How

much of a role do group dynamics play in this whole thing? Do I need to teach college students *how* to function in small groups? Do I have time to rethink all this?

After reading the journal entry, what one of us immediately realized was that this reflection about teaching had caused us to “enter” the model at Stage Three: EXAMINE, by posing questions. We were intrigued by how this might restructure the entire model, and we were just as interested in how this might influence the process of reflection. The reflective process appeared not to be linear, as first thought, but perhaps circular or even recursive. Teachers may “enter” at various stages and resolve issues in various progressions. We decided to backtrack to Step One and PRESENT the issue that was really confronting us. We said: **There are a variety of valid reasons students fail to adequately complete assigned tasks in a classroom situation.** We rethought what had happened in the classroom and tried to remember as many details as possible that lead to frustration, on our part as well as on the part of the students. Excerpts from the next journal entry read:

Today we gave an assignment in class that I hoped would serve as a background exercise to activate some prior knowledge of students . . . I thought I made the assignment clear . . . Ten minutes later some students were completely through; I thought the entire process would take at least 20 minutes . . . I found students who finished early had said they had answered the questions, but they had not really responded to them.

Together we moved to Stage Two: CLARIFY by remembering other times each of us had used this assignment or the technique. One of us wrote:

The assignment was one I had done before with other classes and even with graduate classes. It seemed to work and I enjoyed the kinds of discussion generated from student responses. However, we have a couple of students in this group who don’t seem to want to be there and pretty much attack any and every assignment in a cursory and distant way. They look at each assignment on the surface and do the minimum to complete the task . . . In addition, the classroom isn’t really conducive to small group work either; it’s too small and there’s no place to spread out.

Since we had begun our investigation at Stage Three: EXAMINE, we began to try and find answers to the questions initially posed. We tried to fine-tune our search and make the reflection process more valuable by continuing to ask additional questions. For instance, one journal read:

I really don't have the time to do a full scale investigation of this, but it does concern me and has for some time. Is it me or the students? And if it's me, what can I do differently? I know that it is part of my nature to explore concepts and ideas and to encourage my students to do the same. I guess I'll bring it up the next time we meet. What do you think? Any insights? Who else could we talk with? Are others having similar difficulties and haven't verbalized them? Maybe they'd be glad to know the problem isn't peculiar to their classes.

At Stage Five: ASSESS, we began to truly see teacher reflection at work. The journal read:

I've known for a long time that developmental studies students are naive, not unintelligent. They tend not to look at options and possibilities as they write. Maybe it's that they don't explore much. Not that they don't want to, but that they don't know the questions to ask themselves. They don't even seem to know that it's expected and they either ask a million questions or do a haphazard job fulfilling the task or assignment. This type of behavior happens whenever I give an assignment when I'm assuming and not explaining. But that fits my conceptual framework; I assume that what makes sense to me will make perfect sense to them, too. Many of our students are probably more specific learners and I need to be more sympathetic to those concrete, hands-on learners, who need the explicit task outlined. As I asked around the unit, I found that colleagues are concerned about the insufficient development of actual thought processes in many developmental studies students. Maybe we need to reevaluate what we envision of students in terms of entry and exit level expectations; what do we assume in terms of thought processes?

The final stage, FEEDBACK, allowed further reflection and the beginnings of a course of action. The journal said:

Being able to write about this in the journal has allowed me to think about the whole situation and actually put it into words. Before, I might have just mentioned to someone in the office, saying "Boy, those kids are driving me crazy!" They might have agreed and answered, "Me, too!" But in the journal I actually thought about why I was crazy and tried to figure it out. Cathartic, maybe? I am going to try something different next time--maybe it will work and maybe not. For some of the other assignments in this team-taught class you have picked up the pieces and re-explained the initial assignment in a way that made sense to those who needed the more specific approach. You have a unique way of imagining what others are

going through in trying to understand an assignment and are more natural at the sequential directions. Since you're not always there to do that for students, I need to learn to balance the two approaches in order to meet the needs of our diverse population of students.

By reconstructing the problem with the reflective model as a guide, we were able to review the situation, gather data, observe more systematically and carefully, and ask ourselves questions that would lead us to fuller and clearer reflection of the problem. Then we could move toward solutions, that is, toward effective change. Rather than abandon an effective method of teaching—one that was successful for many of the students—we were able to discover some of the issues and problems that contributed to the lack of success for a few. Now we can keep what “works” and revise the lesson toward greater effectiveness for more students.

Application #2

The process of reflection enhanced by the model is applicable not only for individual classroom teaching, but can also be utilized on a larger scale for assessment and research in the design and development of curriculum. We employed the six stages of the model to systematically reflect on the process of curricular change when we redesigned our team-taught class for developmental reading and writing.

PRESENT. We desire to redesign the present course and:

- conduct a naturalistic exploration as participant observers of an alternative context to enhance motivation and student learning,
- connect reading and writing through team teaching,
- pursue an interest in alternative assessment of student learning, and
- begin to corroborate various kinds of information gathered to assess student progress.

CLARIFY. The factors affecting this issue are:

- scheduling
- demands of the curriculum
- teaching philosophies/styles
- demands on our time
- student load/paper load
- heterogeneity of students

- student attitude and motivation
- course requirements
- nature of assessment
- methods of data collection
- anonymity of student data

EXAMINE. At Stage Three, we generated statements that would guide our design of the new course. We stated:

- college students lack the metacognitive strategies necessary for success in the learning environment;
- Teachers must help these students become more responsible for their own learning;
- Teachers must begin to employ alternative methods of assessment to evaluate individual student needs;
- Certain alternative methods of assessment may be more effective than others for enhancing student motivation and attitudes toward learning.

The ANSWER stage served as an investigation into the appropriate literature that would add credence to what we intended to do. We divided up the task and met frequently to discuss what we had found, what we could possibly use, and what direction we should pursue next. We examined theories of how students learn, the notion of the new literacy of Willinsky (1990), the modes of instruction and roles of the teacher of Fenstermacher & Soltis (1986), the concept of authentic assessment through portfolios and negotiation, the qualitative research methods of phenomenology and symbolic interaction, and the writings of experts in the field of at-risk populations such as Chiseri-Strater (1991) and Rose (1989).

The ASSESS stage involved responding to what we had thought about or questioned so far. At this point and based on our readings and conversations, we were prepared to design a course outline and syllabus. We discussed the nature of the “voices” of student learners: what is “heard” through hard assessment data (e.g., test scores, grade point averages), what is “heard” through psychological profile data (e.g., self-report data on learning and study strategies inventories and personality-type indicators), and what is “heard” through metacognitive, self-reflective data (e.g., journals, interviews, conferences). As teacher/researchers, we agreed to keep dialogue journals and exchange them on a regular basis, generally at our weekly collaborative planning sessions. We recognized the need for continual reassessment during

the quarter as new information became known that would influence instruction and teaching.

During the FEEDBACK stage, which occurred at the end of the quarter, we reviewed the contents of the teacher journals by categorizing and making generalizations about what we had learned, understood in a new way, or found to be true or not true. We reviewed the student course evaluations for their perceptions, allowing student input to influence future planning. We had conducted student interviews and conferences during the quarter and we reviewed those more "candid" comments. Finally, we refined our course objectives, materials, and procedures and addressed the idea of how the model had impacted our process of reflection.

The reflective model allowed us to systematically assess what we had constructed, implemented, and observed about ourselves as teachers, about the context of the course, its purpose and possible research implications, and about our students and their progress. It effectively enhanced our own pedagogy and classroom research.

Conclusion

Using the model in these ways has allowed us to think about implications of our own reflection as well as future uses of such a systematic paradigm. The process has shown us that we, as teachers, need to pay more productive attention to our own teaching processes and to the outcomes that are affected by these processes (i.e., change that is not only thoughtful, but change that is research-based, classroom-based, and personally based), with the teacher as an integral part of student learning. The opportunities to reflect allowed us to look at various pieces of one model for change and to analyze those pieces in which we are weak, strong, or unaware. We were able to explore possibilities and to see where this model might fit into teacher/researcher investigations or other kinds of collaborative research. We were able to compare teaching style and conceptual framework within the sequence of the model, to look at teacher differences, and to understand as how these differences function within the classroom and within the individual teacher. Finally, we began to understand how different kinds of pedagogical changes occurred as a result of this kind of reflection and we began to ask ourselves which parts of the model most influenced that pedagogy.

It is through teacher reflection and classroom research that we obtain insight and support for an inquiry-based model of teacher reflection. In our experiences, we examined teaching style, pedagogical process, and student learning through the process of reflection and worked together

to find answers to questions as well as direction for our instruction that would enhance our effectiveness as teachers. We concur with Applebee (1987) who has concluded:

It is through the process of systematic reflection that teachers can most enrich the research process--reflection upon their own teaching, upon interpretations of data collected, and upon the implication for practice of the questions and directions highlighted in disciplined-based research. Based on their knowledge of the classroom, teachers can ask questions that help define new problems to study, provide evidence about what works and what does not, and give insight into the complex life of the school and the classroom. Research in education has at times ignored the teachers' professional knowledge, of course, and has inevitably suffered from it (p. 7).

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