Reflective Thought: A Personal Investigation and Application in Art Education

by

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B. A., University of Georgia, 1984

An Applied Project Report Submitted to the School of Art of
The University of Georgia in Partial Fulfillment
of the
Requirements for the Degree
MASTER OF ART EDUCATION

ATHENS, GEORGIA
2000

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July 5th, 2000
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Acknowledgements

For they may someday say, "How could such a branch bear such fruit? Not knowing that you are the tree, you are the root."

"For every atom belonging to me as good belongs to you."

--Walt Whitman, "Song of Myself"

Although I wrote this thesis kicking and screaming, I am grateful for the experience, as I learned a great deal about myself. I am also grateful for the wealth of encouragement and support I have received from many in completing this project. I thank Dr. Walter Allen, Sr., for his encouragement and support: he nagged me for years about becoming a teacher and about going back to school. He also taught me more about life, people and about community by turning people's assumptions upside down with abashed humor. Thank you, Chief. I am not the first, nor the last, to say I am indebted to one of Chief's cohorts, Nix. He, and Dr. Squires, rescued me from Art History with the promise of job opportunities upon program completion and the chance to continue taking studio classes—I was sold, and I transferred immediately. Nix has also remained steadfast in his belief in my abilities and has wholeheartedly supported the decisions I have made in my career, regardless of whether or not they were practical decisions in his mind. He recognized the day he met me that, and I paraphrase, I walked to the tune of a different drum, but I was a gem nonetheless—a little rough around the edges, but a gem. I can only repay this man for his compassion and his extraordinarily generous spirit by carrying on in his name and continuing his enormous legacy—may I be worthy. I thank Dr. Andra Nyman: I could not have done

this without her. She agreed to serve as my major professor despite an already enormous load and has prodded me along, allowing me to complete this in my own way. I am grateful for witnessing her wisdom and her grace (may it rub off on me), I have benefited enormously from her compassion and her attention to detail. May our paths cross in the future, preferably in another country! I thank Dr. Carole Henry for serving on my committee, as well as for her continual advice and support in my career.

And finally, I must thank my parents, Selma and David Resler. My father, I thank for unwittingly passing his analytical nature on to me. He taught me to question everything, accept nothing, and to take everything apart to gain a whole understanding of its function. My mother, I thank for her unrelenting love and support, regardless of whether or not she agreed with the choices I made. I also am grateful for receiving her fierce nature: while mine is not as quiet or subtle as hers is (does that come with age?) it is fierce—she is reflected in me that way. Furthermore, any writing abilities I have are owed to her: she is a gifted wordsmith and should write that novel. I love them and thank them both for my life, may I live it fully and reverently in their name.

CHAPTER ONE

Introduction

Reflective thought and practice has become quite popular, even fashionable, throughout every segment of the education community over the past two decades and is now a commonplace practice in many forms. Those in teacher education propose the practice of "reflective thinking," "reflection-in-action," often in combination with "action research" and towards "critical reflection," and the development of "reflective teaching." People of all ages and walks of life are now returning to the art of keeping journals, many even making the journals in order to express their individuality on a deeper level. Students in all grade levels are asked to keep journals: in fulfillment of a language arts curriculum requirement, as a way of increasing literacy skills, as a documentation and synthesis of experiences and information learned in peer mediation participation, and as a sketchbook to make manifest creative thoughts and ideas. It is now becoming standard practice for college education majors to keep journals throughout their student teaching experience. Many college students are required to keep journals in fulfillment of internship requirements or within the context of an art criticism course.

It is not surprising that reflective practices of all types have become prominent within today's society: they serve as a counterpoint to the overall sense of disconnection between what we experience and what the world is, a quiet reaction to the alienation brought on by the Industrial Age. Reflection is an act of recovery: recovery of the

senses and a sense of a fuller self; recovery of presence, of balance, of connection, of truth. Reflection could even be viewed as an archetypal form of recovering memory, thereby leading to cognizance and thus a life lived in the moment. Reflection is a defiant act towards "wholeness," a term that now seems trite, and yet it is only through going inward, through introspection, and then action on what was learned through that introspection, that one gains a larger picture of the whole and lives in a larger orbit.

Despite the apparent acceptance and necessity of this thought process today, reflection is a practice that is difficult to describe. It is a point somewhere between interior and exterior, consciousness and instinct, that is difficult to translate, resulting in a myriad of definitions. Webster's (1996) defines reflection as "a) fixing of the mind on some subject; serious thought; contemplation; b) the result of such thought; idea or conclusion, especially if expressed in words c) meditative; thoughtful." (p. 1127). Dewey (1933) defines reflective thinking as a process which:

> ...enables us to direct our activities with foresight and to plan accordingly to ends-in-view, or purposes of which we are aware. It enables us to act in deliberate and intentional fashion to attain future objectives or to come into command of what is now distant and lacking. By putting the consequences of different ways and lines of action before the mind, it enables us to 'know what we are about' when we act. 'It converts action that is merely appetitive, blind, and impulsive into intelligent action.' Only when things about us have meaning for us, only when they signify consequences that can be reached by using them in certain ways, is any such thing as intentional, deliberate control of them possible. (p. 11.)

Susi (1995) defines reflection simply: "Reflection involves looking back on experiences in such a way as to reconsider and better understand what happened (p. 110)," resulting in knowing something "that is already known in some sense but knowing it in a deeper and more thorough way" (p. 110). This is fine, as far as it goes, but it is only one part of the equation.

I would like to suggest that we not limit reflection to a practice that examines solely the past in an isolated fashion. Rather, a reflective consciousness flows in a continual process of growth and transformation through the continual relationship formed in connecting internal and external, between microcosm and macrocosm. The human being serves as a focal point, the threshold between the two extremes, the center of the entire realm--not in an egotistical fashion to the exclusion of anything or anyone else, but rather as a lens through which everything is distilled and expressed in a unique sense towards personal wholeness. This is a process akin to that of the crosspoint part of a plant, the point at which the root and the sprout of the plant begin to grow, simultaneously and in opposite directions. Reflection is a perpetual, never-ending process that, combined with action or experience, fosters development and differentiation towards a greater degree of consciousness: our orbits grow larger and larger, while the degrees of separation grow increasingly minute.

How does one actually reflect? Reflection requires a cessation from reaction, a tall order in today's frantic, fast-paced, immediate result-driven society. It is a choice made to simply stop on the well-trodden path we have carved for ourselves, in the never-ending search towards greater self-definition (as opposed to self-awareness), and think—think about how one got to this particular point in time, the choices one acted upon to bring one to this present moment. It is a paying very close attention to all the

choices and resulting actions that brought one to the present. Reflection is not a thought process limited only to an analyzation of the past though: it is also the ability to examine and apply elements learned as the result of past experience towards future scenarios. Thus, there is a perpetual translation between past and future, between internal and external, with the unique individual serving as a lens or a filter in the here and now, towards a higher level of integration and a greater degree of connection through a deeper awareness of self-orientation.

There are two situations that seem to bring about reflection: pain and a desire for growth. Although one could occur without the other, it seems more often than not that they occur in tandem. The fact of the matter is that the mind chooses the easiest path, and we tend to make choices that serve our ego, rather than our true Self. We strive for self-definition through the assumption of various roles—mother, father, spouse, teacher, engineer, doctor, artist—that provide a sense of purpose and engender respect from others. We also yearn for security, for that which we believe will provide us with comfort and happiness and keep us from suffering, vulnerability, frailty. And so, for example, we acquire secure jobs with good health insurance. We often remain in these jobs, long after they have challenged us and despite the fact that we are miserable in them, because the security they seemingly provide is more important than any continual personal growth or challenges to self conceptions.

It often takes something jarring and painful—loss of a job or relationship, for example—for someone to look outside, or beneath as the case may be, their complacency and seemingly inviolable secure environment and grow into a larger sense of who they are through introspection and reflection. Dewey (1934) states the situation out of which this evolves:

> The rhythm of loss of integration with environment and recovery of union not only persists in man but becomes conscious with him; its conditions are material out of which he forms purposes. Emotion is the conscious sign of a break, actual or impending. The discord is the occasion that induces reflection. (p. 15)

Thus the individual is forced to look within, study the Self, in order to forget the Self and become part of the whole again.

Reflection could be viewed as an act of paying attention. The map that one navigated is no longer relevant; thus, one must go through the painful process of redrawing the map and temporarily narrowing the scope and parameter of one's previously accepted vision. And how does one pay attention? The act of attention demands listening, *deep listening,* with all the senses—not just with the ears. Attention creates connection. Attention clears pathways, opens doors, allows you to see a greater piece of the whole picture, or at least see it in a different light. Attention brings healing. Like it or not, I am grateful for any difficult or painful experiences I have had in my past; it took those situations for me to pay attention and learn what I needed to learn to move on into a fuller sense of myself.

A reflective consciousness is a truth-seeking consciousness. We come to our understandings of our world through our relationship to it. We therefore must examine not only the world, with awe and wonder, but also ourselves, with the same awe and wonder and a measure of detachment and patience. We then must be willing to take action on our reflection and open ourselves to challenges, with the intent of perpetually revising our vision, our maps. Rilke (1934) sums up the entire process:

> ...keep growing quietly and seriously throughout your whole development; you cannot disturb it more rudely than by looking outward and expecting from

> outside replies to questions that only your inmost feeling in your most hushed hour can perhaps answer.... Being an artist means, not reckoning and counting, but ripening like the tree which does not force its sap and stands confident in the storms of spring without the fear that after them may come no summer. It does come. But it comes only to the patient, who are there as though eternity lay before them, so unconcernedly still and wide. (p. 20, 30)

This study undertakes an examination of reflection, in general as an exploration of definition, and specifically as it has been applied within the field of art education. I tend to be a reflective person by nature, and having kept journals for some time, I found my personal practice of reflection through journaling to be a natural means by which I came to terms with and found resolution for the situations I encountered as a novice elementary art teacher. While my education had provided me with a sound foundation for my teaching practice, I was by no means as prepared as I thought or hoped I was when I entered that classroom my first year as a new teacher. Journaling helped me to enlarge my vision and resolve many situations that I was at a loss for how to handle. Thus I became interested in the various applications of reflection to the discipline of art education; I also increasingly became aware of the gap between the preparation provided through teacher education training and the level of wisdom necessary to fully and appropriately handle the reality of today's classroom as a novice teacher.

A review of the literature on reflection, particularly as it pertains to education, is presented in four sections in Chapter Two. The first section examines the various definitions of reflection; the second section explores studies in applying reflection. The

third section explores the development of a reflective practice in education, and the final section details existing models of reflection.

After a brief introduction, Chapter Three offers an arts-based model of education grounded in reflection. A curriculum based in art is the approach taken in the first section. The necessity of reflection is expressed in the second section, followed by an explanation of the Brain-Based approach to learning in Section three. Section four details the actual model, one rooted in art, reflection and service, with a brain-based foundation in learning styles.

Chapter Four concludes this study by offering recommendations and further applications, namely that of reflection used in assessment. In an ideal world, art would be recognized as an essential component in any schooling environment: several studies have concluded that those students offered an ample, sequential foundation in the arts excel far beyond those who do not, in both test scores and in grade point averages. Yet legislators, for whatever reasons, have not yet made the connection that the arts are invaluable in the development of exactly the types of thinking our children will have to be proficient in if they are to be successful, contributing members to society. Thus, I offer a section on using reflection as a means of assessment: as loathe as I am to play the game by these rules to justify the necessity of art and of reflection, I am in the minority. I look forward to the day there is an upheaval in the education system of this country; among other things, may it produce an arts-based curriculum that honors each individual's learning style.

CHAPTER TWO

Review of Literature

"Who dares to teach must never cease to learn." --John Cotton Dana

Definitions of Reflection within the Context of Education

Today it is doubtful that there is a teacher educator who would claim that reflection is not of primary concern in teacher preparation; it is also unlikely that a classroom teacher would negate the necessity of fostering a sense of reflection in their students. And yet defining this ubiquitous term is no easy task, meaning running the gamut between personal introspection versus an external questioning of traditional or existent belief systems within the educational realm. Dewey and Schon provide the contemporary foundation for reflective practice in education, with the majority of today's educators building their premises.

Dewey (1933) believed critical reflection provides insurance against thoughtless viewpoints on teaching and schooling; reflective thought is:

> ...active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends. (p. 9)

He further states that critical reflection is a process of investigating various points of view and arises:

> ...when we begin to inquire into the reliability, the worth, of any particular indication; when we try to test its value and see what guarantee there is that the existing data *really* point to the idea that is suggested in such a way as to *justify* acceptance of the latter. (p. 11)

It is clear that Dewey (1904) believed that a technical approach to teaching methods would foster a breed of teachers divorced from connection, from process, from a sense of the whole picture. He feared that "immediate skill may be got at the cost of power to go on growing." (p. 15)

Schon (1983) built his concept of critical reflection on Dewey's premise, carrying that original definition a step further and into specific definitions and applications. He stressed that the practice of reflection is based in the practitioner's degree of awareness or consciousness in realms such as theories, practices, value system, and knowledge. These realms, in turn, influence the choices practitioners make with regard to the dilemmas that are recognized, the way dilemmas are framed and re-framed, and the judgments made towards solutions.

From this foundation, contemporary educators have attempted to put a finger on this elusive process, many choosing a roundabout way towards definition through various means. Bullough (1989) finds reflectivity to be a "slippery" (p. 15) term, necessary for setting a framework and creating boundaries, yet difficult to define because it is the end to be sought (a reflective teacher, for example) as well as a means for achieving that end. Susi (1995) states that reflection "involves looking back on experiences as a way to reconsider and better understand what happened" (p. 110). It is through this process that "the individual examines personal behavior patterns, analyzes problems, and evaluates decisions as a means to improve performance" (p. 110). He compares it to the use of video replay in sporting events, in that reflective teachers review lessons and classroom events from different viewpoints, considering key moments, techniques used, actions taken, and outcomes to better develop teaching practices. The purpose of reflective teaching, in Susi's (1995) opinion, "does not center

on the discovery or generation of new knowledge. Rather, it emphasizes knowing better something that is already known in some sense, but knowing it in a deeper and more thorough way" (p. 110). Tom (1985) does not try to define reflection in terms of specifics, instead offering role models of exemplary practitioners and pointing out specific reflective qualities they embody. Cruickshank (1986) acknowledges the imperative need of reflection and his debt to Dewey, yet his interpretation of reflection seems to stray from the essence of Dewey's. While Dewey's intent encourages a process that fosters critical examination of all aspects of thinking, leading to intellectual independence, Cruickshank's application is a "carefully constructed" (1981, p. 553) practice that restricts the reflective process to prespecified methods towards prescribed goals, whereby the means become the ends.

Van Manen (1977) perceives reflectivity within three domains: the first is a technical rationality during which the focus is on applying educational knowledge towards a given and accepted ends. There is no introspection or a questioning of process, knowledge structures or educational institution. The effectiveness of the means is used to get the ends, which are unexamined. The second domain embodies practical action, where a questioning and clarification of assumptions in teaching occurs; consequences of actions and intent behind educational goals are investigated and assessed. The third domain of reflection is one of criticality: at this level, the elements of morality and ethics are added to the equation towards practical action. Educational experiences, goals and activities are questioned in light of whether or not they serve justice, equity, and a compassionate way of life. Van Manen's delineation in defining degrees of reflection has influenced the research of Stout (1986), Zeichner and Liston (1987) to name a few, and has defined several reflective programs.

Armaline and Hoover's (1989) vision of critical reflection and reflective teaching is, like Cruickshank's, indebted to Dewey's ideology. Yet their definition and implementation of reflection lies in counterpoint to Cruickshank's, theirs' addressing the macrocosm while his addresses the microcosm. Cruickshank's approach (1981) works within prescribed knowledge structures, belief systems, and schooling environments, essentially restricting reflection to methods by which student teachers obtain prescribed goals. Cruickshank is essentially training student teachers to become technicians, devoid of criticality or analysis, handing down information from generation to generation that may no longer be relevant for today's rapidly changing world. On the other hand, the intent behind Armaline and Hoover's approach is to educate student teachers towards becoming "transformative individuals" (p.43). Believing in Burke's (1995) adage, "We are what we know," (p. 42) they approach knowledge systems and the concept of reality and truth from the standpoint of recognizing that what we believe becomes our reality, whether it is actually reality or not. Thus, critical reflection is a means by which we increase consciousness, gain clarity and develop skills towards transformation and intellectual freedom.

Gore (1987) notes the variety of interpretations of Dewey's definition, then compares and contrasts two of her contemporaries' interpretations (Cruickshank's and Zeichner's), acknowledging strengths and suggesting modifications within their practices. Gore, with Zeichner (1991), ascribes to a social reconstructionist view of reflection, a broader, political approach that is based on a foundation of social justice, compassion, and equity. In implementing this type of reflective program at the University of Wisconsin, Madison, teacher educators there had to address specific criteria in a variety of practices in an effort to establish clear priorities for their

program. Gore and Zeichner (1991) found that a wide variety of criteria had become attached to the concept of reflective practice, the results being that important differences and distinctions were hidden behind a common rhetoric. This has resulted in an embracing of generic concepts of reflection, easy for teachers of every ideological persuasion to utilize without any threat of offense, except to those who would prefer to prescribe set curriculums in reflective practice. Gore and Zeichner (1991) also note that they, unlike the majority of researchers found in the literature, do not believe that teachers' actions are "necessarily better just because they are more deliberate and intentional" (p. 120). Their model of reflective teaching, which is combined with action research, will be addressed in the next section.

Zeichner and Liston (1987) base their viewpoint on Dewey, believing reflection to be an active, rather than passive or solely introspective process and contrast this to routine action, which is rooted in tradition, external authority, and circumstance. Furthermore, they specify that moral, as well as educational, criteria must be used in examining the consequences of chosen and implemented solutions; therefore, in practitioner preparation, teacher educators must focus on increasing the depth and scope in students' consciousness in addition to fostering reflective processes. The foundation for their definition of reflection is Van Manen's (1977) three levels of reflection. Believing conventional teacher education programs to be inhibiting in terms of the self-directed growth of student teachers and, thereby, failing to promote professional development, the authors provide an alternative model based in apprenticeship. This model, implemented at the University of Wisconsin, Madison is based in reflective teaching and will be examined in the next chapter.

Kitchener and King (1985) believe that mature reflection displays an ability to view situations from multiple perspectives, the skill to find alternative explanations, and the ability to use evidence to support and evaluate a chosen solution. Roth (1989) defines reflection through the process of inquiry, one by which solutions are not passively accepted and alternatives are sought; he then applies this towards program structures and classroom processes and elaborates on the implications of implementing these practices.

A method with proven success for freeing creativity is Julia Cameron's (1992) "morning pages" (p. 26). Cameron, a film and television writer in addition to a director and producer of independent films, once suffered from writer's block and out of necessity began searching for a new path to access her creativity. This took the form of "morning pages," a stream of consciousness writing process done each and every morning without fail: upon waking up, she wrote three pages, longhand, whatever came to her mind. If nothing came to mind, she simply wrote, "I can't think of anything to write" (p. 26). The point was not to expect creative works of art; the point was to act, to place emphasis on process rather than on finished product. Her contention was that by engaging in this process every morning without fail, the mind begins clearing out the old and carving out new paths. Cameron views her morning pages as a means of creative recovery, a way "to get to the other side" (p. 6), meaning a way to get us beyond our fears, our moods, our self-criticism, whatever the block may be. In the process, we learn to reflect on our lives and map out our own interior. We also learn to pay attention, and attention brings forth art (Cameron, 1992).

Studies Towards Application of Reflection

Through her research, Stout (1989) clarifies specific qualities inherent in reflective teaching: control of both the classroom and one's professional life; critically monitoring thought processes and having the awareness to analyze and inquire about instructional rationales; foreseeing the consequences of actions; openness, awareness and flexibility; awareness of the present moment and the uniqueness of each situation, and the ability and willingness to solve a problem unique to any given situation. Stout (1995) also offers her method of dialogue journaling as a means of inducing reflection and discovery while in a teacher education program, claiming "no other thinking process helps us so completely develop a line of inquiry or mode of thought" (p. 36).

King (1993) enacted a study resulting from her belief that instruction should emphasize process rather than product, in terms of the writing experience. By emphasizing process, King believed that students would accept more responsibility for their learning and become better writers; teachers' roles would shift from being the center of attention to that of facilitator. King's study, executed in a graduate seminar, examined thirty experienced teachers' perceptions about personal writing and about teaching the writing process; her intent was to identify the writing experiences of these teachers who teach writing, as well as learn about her own teaching practices concerning process writing. The teachers completed a survey about writing practices and kept a journal in which they wrote in response to King's prompts four times during the course. King found that her students chose reflective journaling as their most frequent creative writing activity, as opposed to poetry or short stories. King's results reflected an overwhelming perception of inadequacy, anxiety and frustration by these writing teachers in terms of their own writing; incidentally, none of the teachers wrote

frequently or even regularly (weekly), which she believes directly contributed to their perceptions. King's goal in conducting this research was to increase her students' awareness of "how the process of writing helps us to transact with ideas and generate new thoughts" (p. 9). She claims to have "forced (her) students to think about their experiences as writers by having them keep journals and discussing them in class" (p. 9), and yet she required them to write in their journals only four times during the course; the entries were prompted ones at that. While King's concerns and insights into the necessity and process of writing are valid, she does not carry this research far enough. She concludes with the assertion that if writing instruction at the school level is to improve, then teachers must be writers themselves. The need to write must be paramount; furthermore, teachers must have something authentic and meaningful to write about, and they must make time to write. King notes that since the school structure does not allow for this type of reflection or personal development, "university classrooms may have to do" (p. 19). While the university is one option, it is clearly not the only one for personal growth and creative expression; furthermore, if teachers take responsibility for their own personal growth, they will make time for personal development rather than allow the present school structure to dictate their practice.

Allen and Casbergue (1996) conducted a study of the frequency and the level of teacher reflection, as well as the thoroughness of teacher recall in both their specific behaviors and that of the students. The premise for this study was the assertion that recall is a precursor to effective reflection. It is generally agreed that reflectivity leads to an increase in personal awareness (Cameron, 1992; Dewey, 1933; Stout, 1989; Van Manen, 1977) and professional growth (Cruickshank, 1981; Ferguson, 1989); as a result, reflective teaching is increasingly being used as a component of teacher

education programs (Calderhead, 1989; Kennedy, 1989; Ross, 1989; Smyth, 1989). With no general template to follow in terms of a reflective practice, self-assessment becomes a primary means of reflecting in terms of improving teaching performance.

Allen and Casbergue note the many researchers supporting the premise of recalling specifics as being the trigger for the reflective process (Eisner, 1991; Roth, 1989; Smyth, 1989); accurate and thorough recall is the first step in the process towards increasingly deeper reflection. It is a given that experienced teachers have developed the abilities that grant them significant levels of recall of classroom occurrences; it can be ascertained that generally speaking, novice teachers have not yet developed this degree of recall--they therefore have difficulty, if ability, in initiating that recall trigger towards greater reflection. Therefore, the question behind this article is: if novice teachers cannot recall effectively or thoroughly, and expert teachers can, how do novices obtain and develop the ability or the clarity to recognize the path towards greater recall, and hence, greater reflection?

Sampling three groups of elementary school teachers with varying degrees of experience, researchers used qualitative methods, entailing an observation followed by a structured interview, both of which were audiotaped. The teacher's recall was then compared to the recorded observations for accuracy and thoroughness. Any elaborations were analyzed to determine if reflection was involved; if so, they were placed within one of the levels of reflectivity described by Van Manen (1977). The researchers concluded that reflection is necessary for the development of and increase in thoroughness of recall. Furthermore, experience being equal, the deeper a teacher reflects, the greater the recall. Consistency and frequency of reflection being equal, the more experience, the greater the recall.

The educational significance of these findings lies in the creation and evaluation of teacher education programs. Allen and Casbergue (1996) believe those founded in reflectivity need to be able to recognize the subtleties and changes in recall ability of novice teachers as their experience increases, as well as that point at which novice teachers gain thorough recall and effective reflection. They are concerned that there is not a template for teacher educators to follow and that novice teachers are reflecting with inaccurate or incomplete recall. Allen and Casbergue believe teacher education programs should include appropriate curriculum and instruction for this recall and reflection ability. Yet again, we must be cautious in defining and packaging this ability to specific standards: is there only one way to recall and reflect? Is it possible, if not improbable, that novice teachers develop in unique ways and through specific and unique experiences towards expertise? Can the path towards expertise be plotted and defined by a single template? And should teacher educators be concerned with this sort of a timeline towards expertise, or should they be more concerned with development of the process leading towards recall and reflection, regardless of the amount of time it may take an individual to reach a designated point?

Henry (1999) examines relevant definitions of reflection to student teaching and art teacher preparation. She then applies those definitions to her research on the role of reflection in student teachers' perception of their professional development. Recognizing the necessity of being present in the student teaching experience, Henry, like King (1993), Smyth (1989), Roland (1995), Ross (1989), and Stout (1989), promotes writing about thoughts and occurrences in the classroom; Henry, through reflective essays. The weekly writing process disengages student teaches from the mindset established through childhood educational experiences and forces them to

postpone judgment and criticality to reexamine and reevaluate their beliefs. This open mindset and critical inquiry then allows for reinforcement, adaptation or rejection of beliefs, whether old or new. Through her examination of her students' weekly reflective exercises, Henry discovered that art process and technique was not a concern for these student teachers. Rather, student teachers reflected on common concerns initially: classroom management and planning, and later, art content and curricular design with the deeper interest of the students in mind. She concluded that continual practice and the act of re-reading evoked an increase in awareness and depth of perception, just as Roland (1995), Stout (1995) and Cameron (1992) have found.

Ferguson (1989) bases his research in a concern for translating theory into practice; he believes that teacher education programs tend to promote technical competence over reflection, the results producing novice teachers who are technically proficient but are unable to address issues beyond an immediate realm of traditional patterns. Thus, he promotes a cooperative teaching practicum based in reflective teaching as a bridge between theory and practice. In his research application, he found evidence of students reflecting at all three levels as described by Van Manen. Students quickly became proficient at translating instructional theory into classroom practice and readily reflected on the educational consequences of their lessons. Ferguson also found that practicum students were critical of their practicum placement and the methods of the practicum teachers with whom they had been paired. Interestingly, Ferguson found that the practicum master teachers became interested in the reflective process brought to their attention by the practicum students. This not only reinforced the methodology used by the practicum students; it also fostered a connection between the university and the partnering schools, between the methods course and student teaching, resulting

in Ferguson's conclusion that a well-structured practicum founded in reflective practice effectively promotes the translation from theory to practice.

Recognizing the indebtedness to the theories of Schon and Van Manen, Calderhead (1993) nonetheless notes the ill-defined nature of reflective practice and the resulting diversity of concepts and programs. He found that generally, programs are structured towards acquiring a sense of awareness and developing analytical skills about teaching, its contents, and its impact. There are a variety of ways by which teacher educators set out to engender these concepts within programs, including: encouraging the acceptance for greater responsibility for professional growth; encouraging teachers to develop their own personalized educational practice; fostering a sense of and appreciation for the social and political contexts they work in; fostering the ability to analyze, discuss, evaluate, and modify their own practice; developing an awareness and appreciation of the social and political contexts of their environment; and empowering teachers so that their increased awareness better affects the future of education. Different programs take different strategies, and as there are no templates to follow, teacher educators develop and evaluate their own programs in an on-going process that increasingly gains depth. Regardless, states Calderhead, there are recurring dilemmas in the founding and developing of reflective programs that teacher educators need to be aware of. These include: process vs. product vs. disposition; development vs. emancipation; conflict of values; gatekeeper vs. facilitator; accountability vs. individual differences; preservice vs. inservice; program vs. teaching context; and reflection as an individual or collective pursuit (Calderhead, 1993).

The first dilemma, process versus product versus disposition, addresses whether teacher training should focus on developing reflective skills, or on developing the

knowledge that fosters a deeper, more constructive reflection, or on developing the attitudes that foster the use of reflection. While it would be impossible to focus solely on one method to the exclusion of the other two, it is important to be cognizant of the direction of the program as one method will inevitably be emphasized more than the others. Ultimately, there should be a balance so that students develop an awareness of all three means. The second dilemma concerns professional development and the acceptance of responsibility: this necessitates negotiable objectives, such as whether or not there should be predefined content and if so, how it should be developed. How are specific skills and knowledge imparted while encouraging autonomy and responsibility? Calderhead astutely notes how this parallels the dilemmas that teachers face every day in imparting skills and knowledge to their students.

In terms of a conflict of values, Calderhead notes that those imparted in a reflective teaching program often conflict with those held within schools. While a reflective program emphasizes taking time to analyze actions and their worth, schools demand immediate, unreflective action. On a deeper level, this dilemma addresses the acceptance of any practice without criticality, including that of expectations within the profession, which novice teachers will encounter upon entering the field. Should student teachers be prepared for the reality of the classroom so that they can function within that environment and are "accepted" by their colleagues? Or should student teachers examine these practices and their worth? Again, balance is emphasized rather than absolutes so that the novice teacher can enter the school environment with the necessary skills to determine the various boundaries, able to discern between that which is negotiable versus that which is not. The fourth dilemma addresses the role of teacher educator as gatekeeper versus facilitator. Traditionally, the role as gatekeeper

was assumed as a means of quality control in the production of teachers; yet as reflective programs have taken root, teacher educators find themselves serving in dual roles—that of judging competence as a gatekeeper, and that of fostering analytical practices as facilitator. In terms of the fifth dilemma, accountability versus individual differences, teacher educators must be able to show that through their training the student teacher is contributing to the field in a professional manner; yet the infusion of a reflective program that is little understood, as well as today's pluralistic society, puts teacher educators in the position of considering and experimenting with a variety of strategies to promote individual professional development. Needless to say, this makes assessment, in the traditional sense, difficult.

The sixth dilemma, preservice versus inservice, addresses the fact that most preservice reflective programs are extremely ambitious and somewhat unrealistic, considering the time frame available. Recognizing what is reasonable for student teachers to achieve within the context of their program, as well as what can be realistically achieved in later inservice teacher training, is of growing concern. Addressing the fact that a reflective program is not self-contained but is influenced by the knowledge a student teacher brings into the program, as well as by the school environment the student teacher enters, is the thought behind the seventh dilemma, program versus teaching context. This dilemma addresses the necessity of recognizing these other influences on the student teacher's budding practice while maintaining the integrity of the program. The final dilemma, reflection as an individual or as a collective pursuit, is a topic frequently referred to in programs addressing critical reflectivity. As there is evidence to suggest that reflective practice requires a supportive environment to foster its growth (Zeichner & Liston, 1987), it is possible that collaboration engenders

reflective practice. Therefore, perhaps reflective teaching should be encouraged within the context of groups of teachers within schools rather than as an individualistic pursuit. Other issues for examination within this context include whether or not the development of individual reflection is in vain if it is not practiced within a supportive educational institution.

Calderhead (1993) concludes by noting implications and suggesting contributions to be made by researchers. Clearly, a deeper understanding of reflective thinking and teaching, in terms of knowledge, skills, and attitudes inherent in this process as well as the different means by which these are instilled, needs to be developed. Attention to the metacognitive processes of learning to teach and to defining the expert reflective teacher, and how their expertise was developed, would be noteworthy contributions to the field. Due to the nature and breadth of the dilemmas Calderhead notes, reflective teaching will likely be developed through the individual teacher; as such, he suggests detailed evaluations so that, in addition to improvement in and clarification of the process, others can benefit. This type of process will naturally lead to a necessary shift in planning orientation, from simply considering the immediate effects of activities and knowledge imparted to thinking about the long term effects during the program and into the field as novice teachers.

Finally, professional development must be addressed if reflective teaching is to become established within the field. Calderhead (1993) notes the likelihood of expectations and support within the school have a greater impact on the further development of a novice teacher's reflective practice than preservice training. Unfortunately, professional development activities are often low on the priority list. Calderhead concludes with the recognition that the long-term effectiveness of preservice

reflective teaching programs will likely depend on the development of support systems within schools, combined with a school mentality that promotes professional growth.

Cruickshank (1986), like Calderfeld and others, began focussing his research on metacognitive processes out of a concern for improving critical thinking skills of students rather than simply focussing on test scores. Yet Cruickshank, unlike many of his colleagues, questions whether or not thinking can be taught; if it can, the skills needed to do so should be identified so that they can be put into practice. Cruickshank believes that teachers cannot foster this skill in students if they have not developed these higher order mental abilities themselves. He faults pre-service education programs for ill preparation of novice teachers in terms of an ability to impart these skills to their students as well as the application of systematic thinking in their own teaching practice.

Following Costa's (1984) lead in believing that reflection and problem solving enhance metacognition, Cruickshank explores the process of reflection, using Dewey (1933) as a starting point from which he defines reflection as "something brought to mind for consideration" (p.83). Making meaning is what is essential, and Cruickshank believes discussion and introspection are two ways of deriving personal meaning from experience. While discussion is characterized as the ability to express and accept divergent views, introspection is described as the ability to continually practice a perpetual self-monitoring within the context of personal needs assessment.

Regardless of which method is used, Cruickshank believes there are prerequisites for making meaning: first, there must be an experience of value or merit. He does not state what determines the worthiness of an experience or if this worthiness is determined internally or externally, which is key: what one person deems valuable, another may not. It is vital that each individual recognize the inherent worth of their

unique experiences; it is also necessary that others recognize and respect the value in the unique methods through which each of us experiences the world. Cruickshank also notes that motivation and a framework for focussing on salient features, and an ability to transfer what is learned to similar future experiences, are necessary components for making meaning.

The means by which these prerequisites are fostered are journaling, with supervising teachers providing the stimulus or framework for students to begin reflecting, and practice in contrived environments for those pre-service teachers unable to have student teaching experiences. Cruickshank believes that the basis for his Reflective Teaching experience is that this method provides a common experience from which personal meaning can be extracted. With Applegate (1981), he explains the method by which small groups of teachers practice teaching his preplanned lessons with one another and then share any variances within the larger group. While this approach may offer a context for practice teaching in some unusual cases where field experiences are limited and curriculum development is not controlled by the teachers, it is too narrow in scope to serve as a realistic approach towards the development of reflectivity.

Cruickshank concludes that although it is not certain that thinking can be taught it can be practiced. He believes that while the acquisition of thinking skills for students has become the focus, the opportunity of obtaining and necessity of maintaining the same skills in teachers has been neglected. Cruickshank closes, noting that there are several alternatives for teachers to raise their cognitive level about thinking; what is needed is a commitment towards providing the contexts by which teachers may do so.

Using Schon's research (1983; 1987) as a foundation, Smyth (1989) investigates the interest in, and significance of, a reflective approach to teacher education. He

argues that in focussing our teaching practice solely on the results of others' research, we do so at the expense of increasing their understanding and professional growth, as well as recognizing the value in process. Rather than being problem solvers, utilizing first hand knowledge to further explore, confirm or reject a hypothesis, we have become "problem posers" (p. 3) taking a passive role and relying solely on knowledge gleaned from previous situations. Thus, major shifts have occurred: society's view of the professional teaching practice, and the relationship between theory and practice have dramatically changed. No longer held in high esteem by the public, and discovering that we are required to perform tasks we were not educated to do, we, as professionals, must recognize and confront the impediments to our empowerment.

Noting the burgeoning tide towards incorporating a reflective, albeit undefined, approach, Smyth also brings to our attention the ease with which some teachers use this approach unreflectively and solely to support their personal agenda. Bullough (1989) also made note of this trend, stating that it was simply putting a new label on an old bottle of wine. Pointing to Cruickshank, Smyth (1989) brings his agenda to our attention--one that initially appears to legitimize this reflective focus, yet does so to the exclusion of the social and moral ends that teaching supposedly values. In reality, Cruickshank simply prescribes and then implements his list of predetermined goals of what he believes teachers should be teaching. The counterpoint to this approach to reflection is one that endorses an active, militant stance in Smyth's opinion. He, like many others, recognizes it is not enough to teach only technique; theoretical, political, historical, and moral issues in teaching must also be addressed.

Another impediment to the development of a reflective approach is the belief that schools are to serve the economic needs of society by supplying a workforce. Thus

we see administrators and teachers scrambling and adjusting curriculums every year in the belief that just the right combination, the right mix of elements, and the appropriate tests will ensure the school's role as a servant of the economy (Walker & Barton, 1987).

It is through Tom's (1985) research documenting the reflective approach in history that Smyth addresses historical and political barriers to reflection. Historically, reflective practice has been around for some time: the confusion in defining reflection lies in defining the problem to be reflected upon, whether it be pedagogy, classroom management issues, or the relationship between the school and society. This results in a *micro* approach that addresses subject matter and the teaching process, or a macro approach that concerns itself with political and ethical principles in teaching, as well as the relationship between schooling and society (Smyth, 1989).

Regardless of which approach, Smyth believes in addressing reflection from an active, intentional, deliberate vantage. Engaging in the teaching politic is not greatly discussed or accepted, as it tends to favor certain interests and exclude or deny others. Questioning power, ideology, and the structures beneath knowledge is always more difficult than questioning technical methodology. And yet, it is the fact that economic shortcomings are linked directly to individual inadequacies (illiteracy, poor work habits, lack of motivation) rather than an examination of the system itself, that schools are blamed for not meeting economic or industrial needs. A deceptively simple mindset that, if addressed reflectively, would likely produce interesting insights. He, therefore, recommends that teachers develop a sense of personal biography and professional history to enable them to question where specific teaching practices come from and if they are appropriate. Smyth states:

> Reflection, critical awareness, or enlightenment on its own is insufficient—it must be accompanied by action.... Reflection without action is verbalism; action without reflection is activism. What we need to do is open up dialogue between teachers about actual teaching experiences but in a way that enables questions to be asked about taken-for-granted, even cherished assumptions and practices, the reformulation of alternative hypotheses for action, and the actual testing of those hypotheses in classroom situations. (1989, p. 7)

Empowerment is simply a means of consciously making sense of the world in which we live. Rather than passively accepting things the way they are, you look for patterns of institutional power, of inequalities, of ideologies—you examine how a system works, regardless of whether it works functionally or dysfunctionally. Smyth posits that it is only by doing so that teachers will regain power. Empowerment through reflection is, therefore, not about passing down knowledge but about sharing ideas and experiences.

It is in this process of discovering and increasing awareness of unrecognized constraints and impediments, and striving to change them that teachers can address what Smyth (1989) describes as four forms of action in teaching:

1. Describe: what do I do?
2. Inform: what does this mean?
3. Confront: how did I come to be like this?
4. Reconstruct: how can I do things differently?

In terms of the first form of action, Smyth recommends journaling to see how consciousness was formed and thereby, how it might be changed. This also guards against "intellectual imperialism" (p. 6) where others provide packaged answers to both questions and non-questions. It prevents passive acceptance and promotes active

involvement. The second form manifests through narrative as teachers begin uncovering the broader principles that inform the action. This is a way to begin understanding the "structured silences" (p. 6) often found in teaching. Teachers begin "recapturing the pedagogical principles" (p. 6) of what is behind what they do, with concrete understanding being the immediate result; concrete action on the intellectual knowledge gained is the long-term result. The third form, confrontation, must occur if one is to be free from entrenched patterns one may be unaware of. Smyth (1989) provides a list of questions to guide teachers in this stage, including: where do these ideas come from? Whose interests seem to be served by my practice? What do my practices say about my values, assumptions and beliefs about teaching? What causes me to maintain my theories? (p. 7) Reconstruction, the fourth form, entails the ability to live in the present, recognizing the forces that influence one's existence and leads to an ability to bring about change through action. Reconstruction allows for focus, self-control and assumption of responsibility through an ability to see the greater whole. Smyth concludes that this results in the ability to start in a given "reality," see its limits, and then alter this reality through learning and action.

In conclusion, Smyth stands for an expansive and politically informed reflective practice, with pre-service and in-service teachers supporting one another in reclamation of the classroom. Examining the histories and processes of experienced teachers offers a considerable wealth of information as well as alternative solutions to situations. While reflective practices have their weaknesses, Smyth believes that the strengths towards personal, professional, and societal growth far outweigh any detractions and closes with, "Not to examine one's practice is irresponsible; to regard teaching as an experiment and to monitor one's performance is a responsible professional act" (Rudduck, 1984, p. 6).

Developing a Reflective Practice in Education

Needless to say, the resulting process and application of reflection is so elusive, and often little understood, there are as many approaches as there are teachers, in reference to the development and implementation of reflection. Cruickshank (1993) accurately states that creating a teacher education program for reflective teaching is difficult in and of itself; doing so in tandem with all the obstacles inherent in any educational innovation and with a goal towards a shared vision is no small feat. Bullough (1989) notes the danger in creating a program in which the meanings, philosophies and values behind the term "reflection" are assumed rather than discussed and agreed upon: the program encompasses one and all viewpoints without any criticality or clear focus and is thus rendered meaningless. It becomes the same ineffectual program, recycled and renamed with a new term. Rather, he believes that reflectivity must be an integral component of a conceptual framework based upon a shared dedication to understood ideas and values. Furthermore, he states that reflectivity is not appropriate for teacher education curriculum development unless it is placed within a concept of teacher development as a long-term, continual process.

As a result, teacher educators and classroom teachers explore, create and evaluate their reflective programs in a perpetual and often isolated process, with little support or external feedback. There are as many applications of reflection as there are educators—this is not inherently inappropriate or dangerous, but it does result in a lack of consensus and renders assessment and accountability difficult. And yet traditionally, consensus and assessment warranted exclusion and narrow-mindedness, the means serving the ends.

The exploration of different forms of reflection has led to a variety of purposes behind and strategies used in collegiate program implementation. The necessity of reflection is inherent in education: the means by which to foster that quality in student teachers is little understood and hotly debated. Unquestioned is the understanding that student teachers are expected to accept sole responsibility for a classroom of children after a brief period of time—ranging from ten weeks in the quarter system to sixteen weeks under the semester system—performing and completing the student teaching field experience. And yet the reality of the situation speaks to the fact that preparedness and an adequate support system is in question when over fifty percent of all novice teachers quit within their first five years in the teaching profession (Wolfe & Smith, 1996).

Reality also posits survival as the overwhelming priority among student teachers (and likely novice professionals as well—not reflectivity. Theoretically, student teachers should be able to transfer and apply content knowledge and curriculum planning techniques towards a meaningful classroom environment and growth for both students and teachers; yet increasingly student teaching is about learning classroom management and keeping children on task, as is that of the professional teacher.

Reflective practice in teacher education can basically be placed into one of four categories, as defined by Zeichner and Liston (1987): academic, social efficacy, developmental, and social reconstructivist. The academic approach focuses on representation and translation of subject matter knowledge to promote student understanding. The social efficacy viewpoint entails thoughtful application of specific teaching strategies as a result of research on teaching. The developmental version

emphasizes teaching that is sensitive to students' interests, ways of thinking, and growth. The social reconstructivist theory entails reflection about the social and political context of schooling, in tandem with assessment of classroom activities for their ability to contribute towards greater equity, social justice, and humane conditions. While none of these approaches, in the authors' opinion, should be used as the solitary foundation for teaching or teacher education, it becomes clear in reviewing the literature that the majority of education programs align themselves with one approach. Ideally, good teaching should address all of these elements in teacher education programs.

Beyer (1984) distinguishes between two categories of goals for student teachers, although he does not specify whether the goals are those of the student teachers or selected for the student teachers by the teacher educators. The primary goal is the exploration and development of "real-life" experiences, those that further the ability to function smoothly within the school setting while developing teaching methods and a personal style. The secondary goal is that of "critical reflectivity" in which educational issues and practices are critically examined. Beyer contends that, unsurprisingly, the primary goal is also the general outcome of student teaching experience; the secondary goal of reflectivity is viewed as such (secondary) due to an environment in which "alternative possibilities and critical reflectiveness are seen as dysfunctional, unresponsive, and irrelevant to student 'needs'" (p. 38). Student teaching is thus a time to practice and refine method and learn classroom management, under the protective umbrella of a supervising teacher. Thus, as studies by several researchers including Armaline and Hoover (1989), Bullough (1989), Griffin (1983), Smyth (1989), and Stout (1989) concur, student teaching tends to promote acquiescence and an upholding of the status quo rather than independent thinking and reflection on the process of teaching.

It fosters imitation and a belief that there are fixed, step-by-step methods for everything from behavior management to methodology in terms of art production. It is therefore not surprising that student teachers enter professional positions overwhelmed and unprepared: they have been taught to mimic rather than to be problem solvers.

Stout elaborates on this lack of teacher preparedness in focussing on the premise supported by the research of Goodman (1983), Cruickshank and Armaline (1986), Beyer (1984), and Griffin (1986) of a "bilevel agenda" (p. 512) in student teaching. The primary agenda is composed of definite objective qualities, such as behavior management, teaching content within the prescribed classroom setting, and planning. The secondary agenda is made up of reflective teaching skills, which Stout defines as "the ability to monitor critically and develop systematic methods of inquiry and analysis pertaining to instructional thought processes and rationales" (1989, p. 512). As stated previously, the problem lies in the fact that these skills are deemed inherent while the very definition of, and as a result, instruction in such skills is ill-defined and, thereby, incomplete at best. It is a matter of developing awareness, increasing consciousness towards process and the intent behind process or rationale.

Valli (1992) addresses the accepted fact that beginning teachers encounter more classroom problems than experienced ones, and she defines four specific areas she believes lead to these problems: imitation, isolation, transfer, and technique (p. 18). As she saw little change in teacher education programs, despite the recognition of a need to improve the preparation of beginning teachers for today's classrooms, she applied for and received a three-year grant to implement a program that addressed this problem.

Valli and the faculty at the Catholic University of America chose to confront the four previously mentioned problems by implementing the following methods: in

addressing imitation, they adopted a reflective approach to teacher preparation; isolation was confronted through a collaboration with local educators in professional development schools; transference was stopped by creating links between knowledge and practice; and technique was addressed through the incorporation of a "normative emphasis" (p. 18) throughout the program. At this point, I will address the problems of imitation, transference, and technique and their prescriptions of reflection in some form.

Although beginning teachers generally claim that their student teaching experience was the most important component of their teaching preparation and that their supervisory teacher was the person they learned the most from, it goes without saying that student teachers frequently enter the classroom copying their supervisory teachers' actions and behaviors, whether out of a desire to gain approval or out of ignorance in reflection and independent thinking. They do not know the reasoning behind their supervisory teacher's actions or behaviors, and rarely do they question them; yet they incorporate these practices into their own, sometimes with deleterious results in their own classroom. This is the result of a lack of a strong, guiding internal philosophy that informs action, regardless of the new and different situations that come their way.

Thus, Catholic University redesigned their teacher education program, with the new definition mirroring their belief in linking reflection to action. They based their model in teacher thinking, rather than teacher behavior, in the hopes of developing the capacity to act consciously and deliberately, rather than reacting impulsively or taking action based solely in tradition. Courses were developed using a variety of instructional strategies (questioning, case study analysis, journaling) to progressively encourage an increase in consciousness from "reflection for enlightenment to reflection for action"

(p. 19). A Socratic line of broad questioning is presented during foundations classes to encourage students to begin thinking about assumed structures and purposes behind education. Case studies provide students with opportunities to analyze teacher behaviors, determine which methods were effective and why, which methods were ineffective and providing a choice of alternatives to remedy the situation. Students also keep reflective journals on their tutoring experiences. They are encouraged to analyze and reflect on their field experiences through self-evaluation forms created by upper class students.

In recognition of the their belief that beginning teachers are high in enthusiasm and commitment but lacking in focus and abstract levels of thinking, the faculty integrated Glickman's (1981) non-directive supervision approach, which is based in the belief that beginning teachers benefit the most from self-analysis techniques and in having to solve their own instructional problems. To this end, pre-observation conferences are held in which the student teacher identifies any areas of concern; they then teach the lesson and write a brief analysis of the strengths and weaknesses of the lesson and any changes that need to be made. Although the meeting between the student teacher and faculty member is termed a "pre-observation conference," no mention is made as to whether or not the lesson taught is observed by faculty or not, or if there is a post-observation conference. I believe this instructional concept could be further strengthened by videotaping the lesson taught and scheduling a follow-up conference with the student teacher.

As others have suggested, beginning teachers do not depart their respective education programs fully equipped in knowledge, skills, and experience to grapple with the challenges they will confront upon entering their own classroom. Interestingly,

Zeichner and Gore (1990) suggest that more often than not, beginning teachers do not use the knowledge they have, the result of regressing to childhood memories of how their teacher behaved, imitating their supervisory teacher's behavior, or depending on mandated curriculum and packaged lesson plans. Valli and colleagues addressed this problem with a two-fold approach: first, although they believe in modeling practices they promote, they also concluded that rarely do they consistently do so. Furthermore, to do so without the context of explanation and analysis fosters mindless imitation, so they determined that consistency in modeling was key. Secondly, they adopted Van Manen's (1977) levels of reflection as their definition and guide, establishing a common framework and promoting a transfer links in learning. To further foster links between knowledge and practice, thus deepening reflection, action research projects are assigned during student teaching. Students tackle topics such as off-task behavior, low achievement, lack of motivation, or either gender or racial inequity, culling information from across courses and experiences into a reflective, integrated solution. Valli discovered in written evaluations that her students learned two valuable lessons from this project: first, they must question everything and take nothing for granted; secondly, they have the ability to change and improve a situation—a very empowering experience that undoubtedly leads to greater confidence and perpetual reflection (Valli, 1989).

Technique is the other issue Valli addresses, as she states that preservice teachers ask more technique questions than any other kind. Valli surmises that beginning teachers simply want quick answers and well-defined rules towards becoming experienced, capable teachers; and yet she questions whether or not good teachers are the result of following the rules. She concludes that although the majority of teacher education programs are technical in foundation, the art of teaching is so complex, so

personal and situation specific, that there simply could not be a list of rules to follow for any given situation. Furthermore, to do so would be insulting to the teacher's intelligence and innate abilities.

Thus the real issue in terms of technique is how to foster a solid foundation in technique so that broader issues, such as those addressing ethics, become the concern. Another component of this issue is the fact that while many researchers now agree that ethical considerations are relevant to learning to teach (Armaline & Hoover, 1989; Gore & Zeichner, 1991), many still teach as if these issues can only be taught and learned in a compartmentalized fashion. This dualistic thinking is defeatist and unnecessary; the introduction of reflective practices can foster the links between these seemingly disparaging, yet related, subjects. To promote a broader, ethical based teaching, rather than simply a technical approach, Valli implemented Van Manen's (1977) concept of critical reflection, providing students with the framework to deliberate the necessity and worthiness of social norms and educational goals.

Valli concludes that while she is pleased with how the faculty at Catholic University has tackled the root of these common beginning teaching problems, she is also careful to note that making these changes in the educational program was not easy, and solutions to situations are constantly being negotiated. Furthermore, when her three year grant ended, so did much of the technical structure she had created: no longer were there problem-solving groups or professional development schools. Thus, Valli attempted some semblance of continuity by producing written materials entailing goals, expectations, and procedures. While not a hands-on or multi-sensory based approach, the materials do familiarize students with the program and promote program cohesion and faculty consciousness.

Existing Models of Reflection

We have seen that the definition of reflection and reflective practice is as varied as those believing in this methodology, largely due to the elusive and individualistic, deeply personal nature of this process. The context in which reflection is defined and analyzed dictates the methods by which reflection and reflective practice is implemented within a teacher education program. Thus there are several implications for designing teacher preparation programs to engender reflective thought and practice.

Roth (1989) notes that the curriculum designer must begin any sort of program development by questioning how to structure the program so that students understand and synthesize the processes behind reflective thought and practice. The framework of the program dictates how the reflective process is carried out. Thus, it should allow for plenty of opportunities to test hypotheses and practices in a variety of settings, including university classroom and field situations, whether practicums or internships, mock or simulated environments, as well as field classrooms. Roth strongly encourages that the program be focused in a unifying interaction between field and classroom experiences and suggests a seminar class based in reflection as the vehicle by which to bridge these typically separate experiences. This allows students to reflect on and analyze their experiences as well as dialogue with future colleagues in a supportive environment; it also fosters a sense of community and a strong, ongoing working relationship between the university and the school system. Providing a variety of situations through internships, practicums, after school programs, community and church services, as well as student teaching, provides education students several opportunities to test theories and ideas and modify the results into their developing practice. Roth also suggests the development of "Professional Development Clinical Schools," (p. 32) a practice akin to

medical residencies in which designated schools offer the opportunity to both learn and practice the teaching profession.

In terms of introducing the student to reflective practice and supporting that development, Roth believes it essential to integrate theory and practice so as to offer the chance for reflection on observed practices in relation to learned theories. Students can then acquire depth in their reflection by addressing such issues as the success or failure of professional teaching strategies observed, questioning the premises by which teaching strategies are chosen and how they address the needs of the learners. They will have the opportunity to examine the different intelligences (Gardner, 1983) and means by which students learn, as well as discover various methods and situations for motivating and disciplining students. This methodology provides the context for students to test and apply what has been learned in the classroom and fosters a safe environment for questioning and modifying premises and practices witnessed. Naturally, many viewpoints and models need to be provided for comparison and contrast, and an analysis of essential issues must be a focal point of the program structure.

Teachers in training accept and share the responsibility for the direction of the seminar class; obviously, the teacher educator does not structure the seminar around a lecture form of instruction, as this passive acquisition of knowledge would not foster true reflectivity and its development. Rather, the teacher educator acts as midwife, providing resources and a variety of alternatives for exploration while structuring seminar class time around discussion and analysis of field experiences. An open environment based in trust and inquiry will provide a substantive experience for student teachers and will foster the confidence to test and integrate theory, observation, and

reflection into personal practice. Roth sums up his stance on structuring the classroom experience for teachers-to-be with, "The acquisition of ...knowledge...and its method of instruction without reflection is substance without form, and reflection without knowledge is form without substance" (p. 33).

The field experience is the third component Roth addresses in terms of structuring teacher education programs. He recommends Posner's (1985) *Field Experience: A Guide to Reflective Teaching* as an excellent source and follows Posner's suggestion of having students keeping a detailed observation log of field experiences daily, using three types of entries: a descriptive recording of daily events; identification of at least two events believed significant by the student and a detailing of why the events were determined so; and an analysis of a critical event. This promotes reflection and fosters a link between knowledge and action, although Roth notes that, depending on the perception of the student, many will have to be initially guided through this process.

Roth also promotes Shulman's (1987) belief in the development of reflection through reading case studies and suggests making that a component of classroom assignments. They provide examples of experiences and strategies for emulation as well as scenarios for reflection. He cites LaBoskey and Wilson's research (1987) which concluded that case studying and writing fostered substantial connections between the theoretical and the experiential.

In closing, Roth suggests the necessity of a series of sequential field experiences embodying increasingly complex interactions and connections if a reflective program is to be successful. Students should have the forum by which to reflect on their experiences individually and within the context of classmates towards development of a

personal style. This personal style has developed over a series of field experiences in which student teachers have tested and amended hypotheses to suit their particular situation, and is founded in a rationale and a supporting theory that will undergo revision with personal and professional growth.

Beyer (1984) believes reflective practice to be essential in the field experience; otherwise, student teachers, in an effort to please their supervising teachers and succeed, will begin imitating the practices they observe, resulting in "a pattern of uncritical uniformity and cultural maintenance....This may in turn lead to a devaluing of critical analysis and interpretation" (pp. 36-37). It is the difference between passively practicing technique and actively practicing inquiry within the context of internal wisdom versus external influences. As Beyer notes, this lack of criticality falls far from Dewey's definition of education's purpose because it terminates further growth.

Beyer (1984) offers two means to prevent uncriticality in the field experience. First, he suggests using critical theory and practice to examine accepted, commonsense observations and attitudes; he even encourages a "devil's advocate" approach, turning accepted beliefs and practices into problematic ones to instigate in depth analysis and debate. Secondly, he promotes developing alternative approaches to foster transformative theories and practices. Through these applications, student teachers learn to connect their reflection found in analysis into active intervention, resulting in theory and practice becoming a fluid whole (p. 38).

Ross defines her personal, introspective model, used at the University of Florida, through the practices of Schon (1983), as well as those of Kitchener and King (1981), Goodman (1984) and Zeichner and Liston (1987). Ross (1989) defines reflection as "a way of thinking about educational matters that involves the ability to make rational

choices and to assume responsibility for those choices" (p. 22) and inserts Zeichner and Liston's (1987) moral criteria in examining consequences of implemented solutions to conclude that preparation of reflective practitioners entails not only teaching specific reflective processes but also requires fostering an increase in depth of student knowledge and morality.

Setting her premise for instruction, Ross takes her cue from Dewey (1933) in believing that reflective growth requires development of specific traits: introspection, open-mindedness, and a willingness to accept responsibility for decisions made and actions taken. Ross also concurs with Kitchener and King (1982) that mature reflection results in an ability to view situations from a multiplicity of viewpoints, provide alternative explanations for situations, and the ability to support decisions and actions with evidence.

With this framework in place, Ross and her colleagues at the University of Florida set out to design an education course based in reflection, in response to their concerns that their recent graduates did not have an established knowledge base or the tools to confront a new statewide assessment device. The faculty believed that they had an obligation not only to prepare their students to successfully pass this new assessment, but to instill a recognition of the fact that assessment of any kind does not necessarily reflect the complexities involved in teaching. Thus they concluded that the development of reflection was the best means by which to graduate successful professionals.

The proposed course was divided into four sections: the first addresses the school as the context for understanding educational research; the second provides a historical documentation of educational research; the third and fourth sections focus on teacher effectiveness research. In terms of strategies for developing a solid reflective

practice, the faculty believed it necessary to convey that knowledge is socially constructed rather than absolute. To this end, a variety of readings were provided to encourage dialogue about the various authors' perspectives and conclusions to expand the students' realm of teaching theory and practice. The faculty also found it essential to provide opportunities to model reflection and receive guided practice in both reflective thought and teaching. One way this was accomplished was by first informing instructors that their efforts to impart the reflective practice to their students would be studied. Furthermore, the students were told that their work would be collected and their viewpoints solicited about a variety of issues over the duration of the semester, thus setting up an inquiry approach.

Other modeling strategies included the instructor enacting various instructional strategies and decision making processes and then designing and implementing several learning environments for students to participate in, such as a cooperative learning environment. Rational decision making, another strategy, was promoted by having students synthesize assigned course readings and then read Ross's synthesis of the same course material in an article she published with Kyle (1987); students then analyzed and critiqued Ross's arguments in the paper.

Guided practice occurs within the context of the university setting, although external placement has been discussed as a future goal. Critical analysis was practiced several times throughout the semester through the writing of "theory to practice" (p. 24) papers. In these assignments, students begin connecting theories and practices they had read about with those they had witnessed in elementary classrooms during their practicum assignments. Students were also encouraged to challenge the assumptions of others, which required the instructors to set a climate of trust, mutual

respect and open-mindedness for this to be a positive, rather than a degenerative, experience. For successful guided practice, instructors must be perceptive and have a clear understanding of the various perspectives their students hold; this was gleaned through class discussions, synthesis assignments, theory-to-practice papers, student research projects, and one-on-one discussions with students. Mention of journal keeping was made in passing, although its application and function in the program is not discussed. Although intensive and time consuming, instructors believed that this level of interaction between students and themselves, through feedback on projects and papers as well as both class and individual discussions, would engender deeper reflection within this short time frame of a single semester.

Student papers were then analyzed and assigned a level of reflection, this process based conceptually on Kitchener's (1977) and King's (1977) seven-stage model of the development of reflective judgment. This model proposes that reflective judgment increases in complexity over time through the progression of the following stages: one's view of the nature of knowledge; one's view of the nature and use of convincing evidence; one's willingness to accept responsibility for one's decisions; and one's openness to new evidence once a decision has been made. Papers were then reanalyzed within their assigned level of reflection and with rating criteria for a variety of categories, such as thematic content. The instructor performed all analyses without the use of independent confirmation, under the premise of a lack of feasibility due to the time consuming nature of this process and the lack of familiarity with course material and sequential content.

Ross' findings concluded that students displayed a wide range in levels of reflection, the majority of students falling predominantly within the first, and most basic,

level of reflection. Ross had hoped that the students' level of reflectivity would increase over the course of the semester, but there was little evidence of this. She further determined that the students' level of reflection did not change over time but stayed the same, a disappointing outcome in light of her hopes for the semester. Thematically, she found that the students increasingly reflected on aspects of expert performance, something that was initially difficult to discern. They also displayed a concern for learning problems and successes of the children, as well as maintenance of classroom control and development of student independence. One implication of Ross' (1989) research is that the support for the development of reflection must be improved, beginning with the ability to fully understand students' reflective abilities and how to respond to them. She also suggests challenging students in their misunderstandings to better develop their understandings. Finally, Ross notes that her data indicates that students have difficulty integrating new information into previously held knowledge structures; one result of this can be an oversimplification of causal relationships. Ross therefore suggests assignments that offer the opportunity to reanalyze conclusions in light of new evidence.

Roland (1995) uses journal writing as a means by which to promote preservice teacher thinking and learning in art education at the University of Florida. Believing that writing "is not only a medium of thought" but "is also a potentially powerful vehicle for developing it" (p. 122), Roland uses journal writing as a cognitive approach towards self-directed learning. He notes that it is now generally accepted that learners acquire knowledge by linking new information into existing knowledge structures and previously formed ideas and beliefs. Therefore, if there is not a structure present by which to link and thus make sense of a piece of information, that information will not be synthesized.

With this in mind, Roland introduces the now documented and accepted belief that teacher education students enter the program with beliefs and assumptions about teaching and learning, the result of their own lifetime of experiences in school systems. This, in and of itself, is not unusual and is to be expected; but, these assumptions and beliefs play a critical role when the preservice teacher is thereby unable to examine contradictory theories and practices because of closely held beliefs. Thus, teacher educators need to be able to introduce methods by which teacher education students can begin examining existing beliefs and assumptions with a means for modifying them towards integration of new concepts within their existing knowledge structures. Journal writing is just such a means, in Roland's opinion, developed through his research undertaken in 1989.

Recognizing that he had previously "forced" (p. 124) ways of thinking about teaching art on his students, he chose to place the responsibility for learning and professional growth squarely on the teacher education students. Roland did this through the requirement of keeping a journal on a regular basis: two entries a week, based on a topic discussed in class and on either a professional reading or a school observation. Although given complete freedom in writing style, Roland hoped to fulfill two objectives through journaling: first, they were a means to promote "active, persistent, and careful consideration on the part of preservice teachers" (p. 125); and, secondly, they were to serve as a means of feedback for both the students and Roland on how they thought about learning as well as their professional development as art teachers.

Although Roland discovered common concerns and issues arose in the journals, he also found the journals to be a source for increased awareness and self-resolution,

noting Gardner's (1983) intrapersonal intelligence, which in tandem with interpersonal intelligence determines one's capacity to know oneself. "The ability to apply lessons learned from the observation of other people" while recognizing that "one's knowledge of others draws upon the internal discriminations the individual routinely makes" (p. 128) defines this capacity. Thus, as one's awareness increases as feelings come to the surface through writing, the capacity for growth increases. Over time, Roland became interested not in what his students thought but how they thought, discovering that in time his students' attention moved from what was occurring within the classroom to what was happening inside their heads: awareness increased, as did openness and thus growth.

Kennedy and Wyrick (1995) conducted a qualitative case study about a fifth-year teaching intern in an effort to define how reflective practice serves the classroom teacher. Three assumptions about reflective practice were held: first, beliefs and values, learned early in life from parents, affect our actions as beginning teachers; secondly, teachers who practice critical reflection will be lifelong learners; and third, the combined knowledge of teachers in collaboration is greater than the knowledge of the individual teacher.

This study was based upon Mezirow's (1990) study, entitled *Transformational Theory,* in which the theory presumes that one's assumptions, based in beliefs and values passed on from parents, will change during a reflective process about actions that were taken during a critical incident. Students were asked to write educational autobiographies and present them to the class; they then reflected on what the schooling experience had been like for their grandparents and parents in relation to their own experience. Students quickly realized how educational assumptions, and society in

general, had changed over a relatively short time span and were then able to discern their own educational assumptions with greater clarity.

Students were then asked to choose a "critical incident" (p. 1) from their field experiences following Mezirow's (1990) guidelines, which are as follows: first, write about an incident, providing the setting, the people involved and their roles in the incident, the action the student intern took; then record any thoughts or feelings related to the incident without interpreting or analyzing the action taken. Classroom discussion with other graduate students then entailed examining assumptions held and actions taken, step by step, through the use of open-ended questions so as not to permit judgment by other students and to allow for deeper reflection by the student presenting the critical incident. This approach was designed to identify verbally expressed reasons for actions and unearth hidden premises behind the actions taken through examination of use of language in a non-threatening environment.

The researchers concluded that this method of using a critical incident in reflective practice is beneficial in promoting a deeper understanding of underlying assumptions about teaching and termed it an action-oriented means of transformative learning. It significant that this method was practiced within a classroom setting, rather than as an individual exercise, as the interpretations of other students offered a broader perspective of the assumptions we all carry within us, a relevant finding in the context of today's culturally diverse classrooms and our increasingly global economy.

Zeichnner and Liston (1987) base their reflective model on Schwab's (1978) theory of the "commonplaces of teaching" (p. 26), which are students, a teacher, a curriculum, and a milieu. Applying this context on a continuum results in the premise that for teaching to occur, a teacher has to be teaching someone (student) about

something (curriculum) at a place in time (milieu). In terms of the commonplace of students, this program hopes to engender the belief that situations that are seen as problematic are in reality socially constructed and not absolute. The teacher's role is that of "moral craftsperson" (p. 26), a term derived from Van Manen's (1977) highest level of reflectivity.

The curriculum, as with knowledge, is to be viewed as socially constructed rather than absolute, resulting in reflexive teaching instead of passive or accepting teaching. This reflexive method allows for negotiation of content and tailoring to specific needs and issues as they arise. The curriculum is also based in an inclusive premise of no one having the key to knowledge: everyone's insights have something worthy of contribution, and this program places a premium on discussion, analyzation and evaluation of everything presented, resulting in an active, engaged program. Finally, the curriculum is broad in scope, in contrast to those that are founded in established classroom procedures and behaviors.

The milieu of the program is an inquiry-based one, providing students with opportunities for questioning and decision making both for themselves and for their future students. This promotes critical thinking and problem solving skills, perpetual growth rather than complacency. It also creates a collaborative environment, open to adjustment, revision, examination and renewal. Student participants no longer view student teaching as a situation in which they simply apply what they have previously learned and demonstrate that they have learned it; rather, they now see student teaching as an opportunity to continue learning and a forum for establishing self-directed learning habits so that they become lifelong learners. They create the educational situations they are in, and they determine the best application of their

educational knowledge. With this in mind, students are required to make three observations outside of their classroom, so as to compare different strategies and approaches to teaching. Students are also required to complete an action research project, an ethnographic study, or a curriculum analysis study in fulfillment of the inquiry component of this model, the belief being that doing so will provide student teachers with the necessary tools to conduct their own inquiries once in a professional position.

The application of this model at the University of Wisconsin, Madison, emphasizes student responsibility for curriculum development so that they learn that skill and recognize the choices made in its creation. As previously stated, it also promotes a "reflexive" rather than a received approach to curriculum, with the structure of the program based in increasing responsibility of the teacher's role by student teachers. This responsibility is not defined solely in terms of classroom management and technique, but also by an increasing awareness of assumptions embedded in the curriculum and the ability to adopt or modify them. Original contributions through the creation of materials and the implementation of activities that are beyond those specified is also considered an appropriate assumption of responsibility. At the beginning of the semester, a contract defining the specifics of all the responsibilities the student is to assume by the end of the semester is drawn between the student and teacher. This clarifies expectations of both parties and provides a rubric for assessment of the student teacher.

Seminars are another component of this program and are designed to broaden student teachers' perspectives. Journals are kept to document growth throughout the semester; they give student teachers the means by which to enrich systematic reflection, and they provide supervising teachers with a method of assessment.

Although the authors state there are specific guidelines by which students are to document journal entries, they do not offer those guidelines in this article. Finally, supervisory conferences are held during which observations are analyzed, and any concerns or problems are discussed.

While there are factors that have impeded full realization of this program, the authors are committed to the program and are perpetually examining and modifying it towards a program that prepares teachers to assume a broader role in the creating of their individual practice as well as the future direction of education.

Summary

Although there are many models of reflection, the majority seem to fall within the personal, individualistic realm of self-examination. A few, notably those developed by Armaline and Hoover (1989) and Smyth (1989), take the broader approach of reflection towards empowerment and societal change.

The majority of researchers seem to wonder about the point at which students begin their reflective inquiry and the general framework this reflection falls in—basic concerns such as classroom management, discipline, and acceptance by colleagues. Teacher educators are also disappointed, for the most part, by the progress made or the depth achieved in reflection over, say, a twelve-week period of time. It seems erroneous to expect those who are unaccustomed to looking inward to fully synthesize and completely modify their outlook on their newly acquired and still evolving teaching practice. Perhaps these researchers should question their motivation, their ends in the students' achieving these predetermined, expected results, which seem rather lofty in light of the recognition that reflection is a process-oriented method of learning and synthesizing.

CHAPTER THREE

A Contemporary Model of Education Based in Reflection

> "Experience is education.... We teach all the time, by what we are and what we do. We learn all the time, by what we see and feel and think and do. The capacity to learn and to teach is organic. We take in and we give out. Every breath changes us. Metamorphosis occurs at every level. And yet the more we learn and change, the more revealed we stand.... There is a difference, then, between what dies in change and what continues to grow, ever riper, ever more complete. Forms fall away in order that form may be revealed.... Death begins at birth, and so does growth." (Richards, 1989, p. 97)

These words express that which is essential in life and which must be addressed in education. Having participated in the public school system, both as learner and teacher, I have to ask the same question I have been asking for years: what are we teaching? And why? Who does it serve? What does it serve? In graduate classes and at Penland School of Craft, I learned that there are different intelligences, different ways of knowing, different means by which we each synthesize information: what a relief it was to discover this! Each brain is unique! It offered validation and an explanation to a question asked of me for years, kept ringing in perpetuity by my inability to answer it by traditional means: "Well, you are a bright person; why don't you focus more and use it?" It was not that I did not want to; I simply could not comprehend information transmitted by lecture in a large hall, no matter how well I could take notes. Nor did I do well on multiple choice tests; they were word games to me and did not test what we

were supposedly learning. While teaching, I perpetually watched as a number of seemingly bright children struggled with these traditional ways of assessing knowledge, their self-assuredness and confidence increasingly flagging as they were told that they did not perform as was expected of them. The notion of a standardized concept of intelligence is a bastardization of all that we as human beings are and all that we are capable of being. Those who fall within the traditional and narrow mode of intelligence assessment become smug and exclusionary by the privileges afforded them through identification, through sameness. Those who do not fall within these narrow precepts wonder about the inequity in being unable to contribute and either grow increasingly quiet or increasingly frustrated, dependent upon their self-concept. The children who become quiet through the lack of a strong sense of self begin believing what they are told and live at the whim of external influences; they defer their dreams. They suffer from depression, unknowingly turning their fragile egos and the inequities expressed to them inward, a slow and crippling form of self destruction, all as a result of an inability to contribute, to be a meaningful part of the whole. The children who have a sense of self, and rebel against the inequities they suffer, grow increasingly frustrated until they express it physically, not being able to distinguish between thoughts and impulse: the results can be seen across our country in the catastrophes at Columbine and Rockdale County, to name but two examples.

If one accepts the notion that there are different ways of knowing, one must question why formal education does not respect or even recognize this and whose means and to what ends it serves not to do so. Traditional education perpetuates the myth that anything of substance, of essence, must be proven through measuring, quantifying, justifying, defending. Zukav (1989) believes that we, as a species, are

evolving from one that pursues power based on the perceptions of the five senses, which he terms external power, to one that pursues what he terms "authentic power" (p. 26) or experiences based in perceptions of the heart and spirit. He traces the path of external power with the survival-of-the-fittest mentality, through war, perpetual conflict between lovers, communities and countries. He contrasts that with authentic power, which involves courage of the greatest sort: courage to grow—through pain, despite fear and vulnerability, amid a sea of complacency, and with detachment and empathy. It seems to me that we, sharing this increasingly small Earth, are indeed growing in the vein Zukav speaks of—one in which there are many paths towards the same Truth, one in which compassion and tolerance reign supreme. We are, therefore, questioning the structures that no longer serve us or our children, of which education is one.

Armaline and Hoover (1989) cite Plato, in the *Republic,* explaining the necessity of a "grand lie" (p. 14) in the name of the preservation and maintenance of the social, political and cultural order. This lie, deemed noble by Plato, served to provide people with distinct and necessary roles for the order and running of the city: everyone felt valued, everyone felt their place meant something, as all institutions supported this—arts, education, politics, religion—and thus the lie was justified, dignity maintained. Some may be more privileged than others, but all are honorable, serving humanity in different ways. The premise of the caste system in India functioned in much the same way initially. Caste binds everyone together towards a common good, puts everyone on the same team: thus, when one does well, it reflects on all, regardless of rank.

Applying this similarity to our traditional educational system, I must ask, "Who is being served and to what ends?" and "Do they have the good of the whole as their

intent?" It seems the prevalent ideology serves to maintain a certain order, to preserve status, to maintain control, to squander power. While I have witnessed with pleasure a growth and change towards openness, equity and compassion, I also see the perpetuation of patterns in schools, with little questioning and fewer solutions: detention halls and special education classes are filled with African-Americans, almost always male. National Public Radio reports (the week of June 5, 2000) that one out of four children is now diagnosed as having Attention Deficit Disorder and on medication. Prisons are overflowing, and again, three-fourths of the inmates are African-American men.

It seems to me that while we as a society recognize we have some issues we need to address, we are not quite sure how to address them within the context of our ever-changing, increasingly global society. Nor are we sure as to the role of education within this context. Exactly what role does education serve in our society today, and is that role fulfilling the needs of both our youth and the society at large? Is there a dominant ideology underlying our prevalent and seemingly unquestioned view of schooling and its purpose? Incidents, such as those at Columbine and Rockdale County High Schools could indicate that this is certainly a possibility. Armaline and Hoover (1989) address this directly by examining our perceptions of the role of schooling and how that colors our efforts at making meaning. They assert that a dominant ideology is at play here, serving to order our lives and our roles within society, resulting in an unquestioned, limited perception of the social order as the natural order within society. Thus, we tend to view education as "the means to an enlightened citizenry and as the great equalizer and provider of endless opportunity for all" (p. 44). It is through careful examination of this role of schooling that we can begin to discern between that which

serves a social order versus that which serves a natural order. It is only through examination of schooling's role that we can make the necessary changes to create a type of schooling that serves as a truly legitimizing force. This careful examination begins with the individual by beginning to identify patterns, ultimately leading to a detachment from deeply rooted belief systems established through a lifetime of schooling.

How is the past serving us to the point that we are unable or unwilling to let go of it and grow into a more meaningful way of living and of being of service to our fellow human beings? Is our inability born out of ignorance? A possibility, given the amount of television passively watched by several generations now. Is it born out of complacency—the belief that one's innate power has no impact, thus lulling oneself into the relative comfort of laziness and choosing not to act. Or do we cling to outmoded structures and beliefs out of fear, fear of not being accepted as part of the "norm" and not having the strength or courage to swath a new path?

I therefore base my approach primarily in art and in reflection, two distinct processes that lie in counterpoint to one another, with the belief that doing so will foster connection, wisdom, compassion, integrity, and individuality within the context of contributing to the whole.

John Cage once wrote, "Do not try to create and analyze at the same time. They are different processes." Art is the creative process by which a person forms something new out of existing materials in the environment; reflection involves analysis of past actions and future options towards a greater degree of clarity and consciousness. Ideally, the two can work in tandem towards a curriculum based in developing whole, fully realized individuals able to apply themselves in a variety of ways within the context

of community. It seems that the prevalent ideology holds that the function of education is to prepare one solely for a job: the higher the education, the greater the economic gains. While there is inherently nothing wrong with this premise, I believe that the overriding focus and motivation of our society is a monetary one to the exclusion and detriment of the development of the whole individual, able to fully utilize their innate abilities, and generating an income by doing so. I also do not believe that the sum of a human being is determined by the level of education that person has achieved. There are far too many well-educated people in this world lacking common sense and compassion for their fellow human beings; likewise, there are many successful, deliberate, self-possessed individuals who have had very little, if any, schooling, and yet they have a huge impact on humanity. Education takes place everywhere, continually—not just in the school environment during the years that we traditionally attend school. Thus every situation, every interaction, is an opportunity for growth, for education.

The Basis for an Art-Based Curriculum

I place art as the foundation of this curriculum, as I believe that arts education is fundamental to what education needs to be today. It, unlike many general educational models, is fundamentally active: the teacher serves as midwife, as mentor or coach, and the student is the worker, the apprentice. In this model, all of the senses are engaged towards meaningful learning; the individual develops unique talents and abilities and applies them within the context of a cooperative working environment. Students learn the value of process—a concept that is foreign to most in our fast-paced, pre-packaged, immediately gratified society; they also learn flexibility, perseverance and patience in order to see a project through to completion. They recognize that the contributions of

all are unique and valuable and that their work has meaning. They learn to shift paradigms rapidly in order to achieve the greater goal and make something work. They also become visually literate individuals and, hence, conscientious consumers. In today's technology age, they must be able to sort valuable information from junk and make use of it towards meaningful ends. They have to be able to synthesize new data at lightening speed, and adjust entire systems and ways of thinking to match new perpetually evolving new truths. These are all qualities that we recognize our children must have if they are to be truly innovative, successful thinkers in any field of today's constantly growing reality, and an arts-based curriculum is the only model by which to achieve these ends.

While I am a proponent of any arts-based curriculum, I strongly believe the crafts are the best way for students to learn to think dialectically, essential in today's reality of continually changing information. The amount of variables that a student has to synthesize and resolve to make, glaze, and fire a pot is incredible; the amount of interdisciplinary connections in creating a pot is also amazing.

The arts allow students the chance to reconnect with Nature, to the earth that serves and sustains us if we will only take care of it. The arts also offer a means by which to reconnect with the spiritual through the aesthetic. Today's youth are desperately searching for meaning and connection—just witness the body piercings, tatoos, and increased drug use if you need proof. And we as a society have let them down by not guiding them through the thresholds of life: we have taught them to conform and be passive learners through classrooms that are divorced from that which is essential. It is similar to continually reading secondary sources in the library when you could interview the original author.

Art demands risk and wonder. It also fosters inclusion, as all societies have recognized the necessity of art since the beginning of civilization; art civilizes society. Art embraces all people and all subjects: art taught through multicultural education allows us to comprehend the human condition towards a greater understanding. Art, taught through various subjects allows a greater understanding of all subjects. Everything is related, and education has made the mistake of creating barriers between subjects so that we no longer understand how the various elements operate within the construct of an organic whole. Art teaches us to wonder and shows us where we have been, as well as where we are going.

The Necessity of Reflection

As everyone jumps on the bandwagon to incorporate some form or mode of reflective thinking into both teaching practice and personal lives, it can be assumed that there is some grain of substance or meaning despite the variety of forms or methods reflection takes. Why do we, a forward-thinking society that values efficiency and independence to a fault, find ourselves taking up the cause of reflection, an inherently slow, deliberate, attentive, and introspective process? Perhaps we are questioning, for the first time in many years, exactly what it is we value out of life—it is obvious that recent generations place an emphasis on different goals and ideals than those of previous ones. Although our parents valued tradition, authority, loyalty, and community, they fostered a sense of independent thinking in their children and in their children's children, resulting in a shift in values, a change in priorities. As a result, today's younger generations no longer value the same qualities that older generations did. People of younger generations generally have a deeper sense of who they are and

what they can achieve. They show little hesitation in doing so, challenging any mode or structure that prevents them from striving for and realizing their goals; the world is their oyster. This independent thinking has resulted in an ability, or at least the possibility, to see many different avenues towards any given objective, thus rendering the knowledge parents passed down somewhat moot and irrelevant. We have been forced to learn a different way of thinking about and synthesizing information. We now must be able to shift paradigms readily and fluidly, and we must be able to synthesize various and often seemingly unrelated strands of information into relevant meaning, with flexibility and the ability to then sequence tasks into a linear form. There are many truths; there are no longer absolutes. Thus as we continually grown into a more global society and economy, we discover that we must honor the unique abilities and contributions of each individual while working cooperatively.

And yet amid these shifts, we wonder why our independent-minded children now have difficulty making connections, understanding how something works or where things come from. We wonder why so many children have lost any sense of hope. While I recognize the opportunities, comforts and pleasures that the industrial, modern and post-modern ages have engendered, I also wonder what we as a society have forfeited in the process. These thoughts coalesced for me while teaching elementary school art. I, like every novice teacher, recognized that some children instantaneously took to exploration of materials and thoughts, working with their hands, questioning premises, challenging previous assumptions and belief systems; others simply did not. Most children found they could have success in art, but those few that could not were deemed by other teachers to have behavioral disorders of some sort, for the most part. I frequently wondered what was behind this inability to focus on any aspect in the art

creating process with these students, regardless of how many different approaches I attempted in an effort to "hook" the particular child. I also listened every day to teachers complaining that students today were "out of control." There was an exponential rise in the number of students with behavioral disorders and learning disabilities, leaving many of these seasoned teachers feeling somewhat victimized and believing that their primary role as a teacher was simply to maintain order in the classroom. Frequently, I heard teachers wonder aloud whether any amount of preparation and planning on their part would impart knowledge to their students. There was perpetual pressure to prepare students for assessment testing, with the belief that higher test scores would validate the teachers' and the school's ability to prepare these future generations for contributing in a positive fashion to society. Low-test scores were immediately equated with either the child having a lack of discipline to learn the given material or the teacher being unable to accurately prepare the students. And more times than I care to admit, I heard teachers, white, whisper in hushed tones, "It's because of *them* (implying African-American children) that we are no longer an exemplary school. It's their fault that we are having the problems we are (in terms of discipline issues and low test scores)." These teachers were so exhausted and extremely defensive, while administrators, parents, and students alike looked for avenues by which to place the blame: time and time again, it ultimately rested on the teacher's shoulders. Not once did anyone question the probability that the educational structure we have been perpetuating for generations may be moving towards irrelevance in terms of meeting the immediate needs of today's children and their dramatically changing futures. Nor did anyone ever address the finely attuned delicacy

with which we needed to observe how and when children were learning and why they were learning it.

True, I was a novice teacher, fresh out of school and with little clue as to how to deal with the situations I would be confronted with. Call it naivete, but I also was appalled by the prevailing attitudes held by the many of my colleagues: they had little compassion for these children and the circumstances they arose out of. And many teachers, clearly frustrated with the changing face of education with its overcrowded classrooms, increasing disciplinary problems, poor salaries among other issues, stated they were simply sticking with a job they no longer enjoyed out of a need for security and a desire for retirement.

I am fortunate to have come out of an arts background with the choice of teaching art, rather than general elementary education: it proffered me the ability to work within an open, flexible environment, one in which there were no absolutes and many opportunities. I am also fortunate to be an extremely "right-brained" individual, in the sense that I tend to gravitate towards and create more flexible, open-ended environments in my classroom. If a child cannot comprehend something the way I have presented it, I do not pass judgement on that student and instead become curious as to how I can reach them, how they can channel themselves. Thus my experience in an elementary school of 675 children was one of experimentation: I tried and questioned everything. I made several mistakes, but I also hope that my passion for art and what I did imparted something of relevance, something of the essence of life, to these children I taught, and I was perpetually trying to show them how to make meaning in their lives, hopefully through the self-expression of art.

In that vein, I began getting to know my students, and they I. A common topic of conversation in my classroom, as these curious children began getting to know me, was the fact that I did not have a television, nor did I eat meat. I told them of my beliefs that too much television watching made people "numb," and that I had known people who had more of a vested interest in the "lives" of television characters than in the course of their own lives. Television, in my mind, led to a certain degree of unconsciousness, a lack of awareness, discipline and control over one's life. I also told children why I chose not to eat meat, after having gotten food poisoning from McDonald's at the age of 15, hence choosing not to put bacteria-ridden, hormone and steroid infested products into my body. Needless to say, most children thought I was crazy. They perpetually asked me what I did with myself and what I ate as a result of these choices I had made. During the discussion on meat eating, a class of second graders and I began discussing where hamburgers came from. No one knew. These children thought that they simply appeared in red and gold wrapped packages, along with fries and a Coke. A few noted that hamburgers came from the grocery store, piles of meat packaged on those white rectangular trays that they brought to me for recycling into paint mixing trays, picture frames, and the like. That was the moment I recognized that the majority of these children had no concept of options, alternatives or connections; those that did, did so because they led lives based in action, and they had a grasp of the concept of process. These were the children that brought egg cartons, yarn, discarded beaded car seats, and just about anything else they thought could be recycled into art projects into my room; they were willing participants, eager for adventure and an understanding of the unknown. Counter to this were the students who, often due to environmental circumstances such as an unstable family situation,

could not see beyond themselves; their lack of self-worth and the instability that defined their lives seemed to leave them with little energy to expend beyond their immediate realm. They had difficulty connecting with others or seeing the inherent meaning in the world; they perpetuated their isolation.

I began asking all of my younger classes where anything and everything came from. They knew that juices came from apples, oranges and grapes, but ask them where water came from and I got, "The water faucet!" Ask them what a pencil was made of, "Plastic!" It was not one of the in vogue plastic pencils that they readily identified with, but a wooden one. It was at that moment that I recognized that these children, while having many of the benefits of a modern society, had in the process lost any sense of connection on any level, including a personal one. Thus, many of these same children had no sense of hope, no promise of a future, no conception of being a significant part of some grander scheme of the whole. And we, as professionals, wondered why we had difficulty with them! These children were simply reflecting the general malaise of our society. We have lost much of our sense of connection as a result of industrialization and modernity. We are increasingly becoming conscious of this and are making efforts in every direction to rediscover this in ways that are relevant and meaningful within the context of this world we live in today.

I therefore decided that I had to completely rethink what I was teaching in my art classroom and how I was teaching it. I began breaking everything down into essentials. In kindergarten, first and second grade classes, we examined what a traditional pencil was made of, the exterior wood and the interior carbon. We recognized that wood came from trees, as did paper, and we examined the process by which trees are cut down and made into a variety of things for our use. We then studied where

carbon came from and how if heated, with pressure added, for many years it becomes a diamond. Some of the students immediately made the connection: "We're drawing with a diamond!" They were then ready to focus on drawing; needless to say, they did not approach it the same way as they had initially. They recognized that these elements of nature were worthy of respect, and they treated them as such—after all, they were drawing with diamonds! They began to see how much human beings rely on the earth and, consequently, why it must be respected and taken care of. Students also began valuing themselves and how they were expending their energy: they drew with more attention, patience and exactitude.

I applied this same methodology to clay in all the classes. Children naturally love working with clay because of its tactile, flexible, dimensional and forgiving nature. Their unbridled excitement and hunger for doing projects in clay had to be grounded if they were to focus and create artwork. Again, in an effort to foster connection, I broke everything down to essentials. We studied the properties and dynamics of clay, from its primordial nature to its applications in everyday items such as cups and plates, toilets, and semiconductors. We learned that clay has electronic energy and sucks poisons from the environment; we also discovered that scientists think that clay may also be capable of storing information and replicating pieces of itself, leading some scientists to believe that the answers to life's mystery are contained in this ancient, earthy material. We examined the weathering process by which clay is formed, which has led geologists to surmise that clay's molecular structure allows it to store and emit energy, the exact qualities necessary in defining a living system. And we learned that clay's formation allows it enormous surface area: a one pound lump of clay can cover 50 football fields (*New York Times,* May, 1987).

We also learned about our senses. For example, we discussed how our fingertips have thousands of tiny sensors on them to receive and transmit information. One perceptive fourth grader made the correlation that this was similar to having a thousand satellite dishes on your fingertip. I wanted these students to learn the wonder of the human body and to respect and use their senses towards finding their unique niche in the world. I wanted students to recognize that they were here on this earth for a reason, that they had a choice in how they viewed and impacted the world: they could choose to be tossed and turned on the winds of external influences and allow that to dictate their actions, or they could root themselves internally and choose how they impacted the world. I hoped I could help students learn to discern valuable data from trash and make use of it towards meaningful ends.

I realize now that I was trying to instill a sense of reflection in my students, having them look inward with the intent of knowing themselves better. I was also trying to establish a foundation by which they saw themselves as being part of a greater whole and thus able to establish connections within that framework.

Reflection as a professional is also borne of necessity: while technique, such as designing curriculums, writing lesson plans, managing a classroom, and solving problems, is a cornerstone of teacher preparation, it is by no means the summation or essence of teaching art. Technical skills are of little use if they are not grounded in an inner life, in heart and soul, and extended to include nature and the rest of humanity. Education is supposed to increase consciousness. This is done by making connections and finding significance in life, which begins with the ascertation of that unique niche each of us occupies in the world and then applying that essence to create a

correspondence within our lives, and between our immediate communities, our country, and the world. Dewey espouses the necessity of reflective thought in the following:

> Thinking enables us to direct our activities with foresight and to plan according to ends-in-view, or purposes *of which we are aware.* It enables us to act in deliberate and intentional fashion to attain future objects or to come into command of what is now distant and lacking. By putting the consequences of different ways and lines of action before the mind, it enables us to 'know what we are about' when we act. It converts action that is merely appetitive, blind, and impulsive into intelligent action.... Only when things about us have meaning for us, only when they signify consequences that can be reached by using them in certain ways, is any such thing as intentional, deliberate control of them possible. (1933, p. 17-18)

This type of thought engenders an ability to discern between that which is essential versus that which is superfluous: it fosters creation and the ability to shift paradigms instantly rather than simply reorganize existing information without any cognizance of meaning or application. And the ability to think has been a primary intention behind schooling since time immemorial.

This necessity of the ability to think was not lost on Dewey. He (1904) believed that this simple premise extended to teacher education as well: preparing student teachers to think about teaching "may be of more importance than the specific techniques of teaching and classroom management that we get them to master" (p. 14).

Brain-Based Education

Educational theories have come and gone, a current one being the result of the experiments of B. F. Skinner in the 1950s and 1960s. His theory of human behavior was based on the notion that because we do not know exactly how the brain functions, we can surmise this by measuring external behaviors, which can then be modified through the use of reinforcers. If we like the behavior, we reward it; if we do not, we punish it. Thus, we soon found ourselves measuring, defining and recording behaviors; As we all know, this has escalated to the point where we assess anything and everything today. The question is: is what we spend so much time measuring and assessing really important, truly relevant? Or is it simply measurable? As Jensen (1996) aptly notes, "You can have the most efficient oil rig in the world, but if you're digging in the wrong area, you'll still not strike oil" (p. 5).

In the early 1980s, neuroscience and its applications grew exponentially. Positron-emission tomography (PET) was used to indicate where brain activity occurs: a sugar based, radioactive substance is injected into the patient to allow tracking blood flow to the brain. When the patient reads, sings, eats a chocolate bar, or remembers a vacation to the beach, different segments of the brain are stimulated. The PET scan records these and translates them into images, thus providing moment-by-moment, interior glimpses of where brain activity occurs (Sousa, 1995).

Magnetic resonance imaging (MRI) was also utilized to record changes in the brain through the introduction of radio waves, which disturb the alignment of the body's atoms in a magnetic field. The MRI records the signals, which are changes in brain activity, and translates that information into a form by which to determine which parts of the brain are involved in specific tasks (Sousa, 1995). Neurotransmitters and their

function within the brain were also discovered during this time. Researchers attached electrodes to stimulate individual nerve cells and to study the reactions and determine which portions of the brain control which functions (Sousa, 1995). All of this research has resulted in a wealth of information as to how the brain functions: how it grows, develops, changes, synthesizes, and remembers. It also has extraordinary implications for the field of education, as clearly we need to develop new strategies for transmitting relevant, meaningful knowledge to our future generations. The problem is that the amount of time it takes for research, such as this, to reach the classroom is far too long: fifteen years passed between the time these discoveries about the brain were made and the time it took to get it out into classrooms. Within the past few years, this information has reached classroom teachers and is now being quickly developed into curriculums for deeper learning to take place.

Although several models of brain functioning and processing exist, one model (p. 11) was developed in the 1980s by Robert Stahl, of Arizona State University, as a means for educators to understand how and why learning occurs. The model begins by showing how information from our environment is perceived by our senses, and how our senses subsequently accept or reject that information for further processing. It then details how the two temporary memories work and the determinants of whether information learned is stored or not. Experience and self-concept and their powerful impact on long-term and future learning are then introduced. It was Stahl's premise that if teachers understood how the brain processed and learned information, they could better plan lessons that would be meaningful and memorable to their students (Sousa, 1995). Sousa also hoped that this model and his application of brain research would engender a new respect for the amazing capacities of the brain. Today, many believe

our futures hinge upon the computer; hence, many choose a computer model in describing the function of the brain. Computers can calculate many functions more quickly than the brain, they play chess, they perform spell-checks, and translate languages. The human brain can do these things, but much more slowly. But the human brain, unlike a computer, has the capability of analyzing and judging information; it is an open-ended, translinear processing system working in perpetual reaction to and connection with its environment. Needless to say, computers cannot do that. We need to promote and develop the natural abilities of this amazing organ.

Without examining all of the components and applications of this brain-based model, I will briefly cover a few essential elements, as they should be considered in planning a reflective model. First, ninety-five percent of our learning during our lifetime is done primarily through three of our five senses: sight, hearing, and touch (Sousa, 1995). As our senses are continually processing millions of bits of information a minute, some form of filter needs to be in operation to allow the brain to focus on only the relevant signals and discard the rest—otherwise, we would short circuit! This filter is called a perceptual register, and it determines the importance of incoming data relevant to the individual's experiences. Secondly, there are two types of short-term memory: the first is represented in the model as a clipboard—a place to temporarily put information until a decision is made on how to get rid of it, and again it is an individual's experiences that determine its importance. If it has little importance, it is dropped from the system. Of importance is the fact that incoming information is hierarchically ranked so that high priority data diminishes the processing of lower priority data. Data affecting survival takes top priority; data generating emotions is next in the hierarchy; data for new learning is last on the list (Sousa, 1995). This has significant implications; namely,

threats and emotions inhibit cognitive processing. Thus, it should come as no surprise that many of today's children find it difficult to stay on-task in school, as they sometimes come from unsupportive environments and find themselves in an overwhelming, rapidly changing world. Much of their energy is devoted to merely surviving and making sense of the world.

In terms of long-term memory, only two things are relevant to the working memory (the other short-term memory): first, "Does this make sense?" (Sousa, p. 14) and secondly, "Does this have meaning?" (Sousa, p. 14). In order for information to make sense, the learner must be able to understand it in terms of his or her experience of how the world works. In terms of meaning, the information must be relevant to the learner. Meaning is highly personal and is dictated by experience. As to the impact of sense and meaning, meaning has a greater impact on whether or not something will be stored in long-term memory. People spend many an hour in front of the television watching shows that technically make sense, but the chances of retaining the content of a specific television show is nil, unless there was something in a particular show that had meaning and relevance for the person watching it (Sousa, 1995).

Sousa notes the direct correlation to the classroom, particularly math class, noting that every day students listen to information in school that technically makes sense to them, but because it lacks meaning it is not retained. The threat of testing does not redefine something as relevant and, therefore, stored in long-term storage; the information will be written down and stored in short-term memory for the test and then disposed of. The knowledge we retain in long-term storage shapes our perception of the world and is called a cognitive belief system (Sousa, 1995) and is depicted in the information processing model as a large triangle around the filing cabinet long-term

storage units, signifying the fact that the sum is greater than the individual items. Information can be combined in endless combinations; furthermore, the more items a person retains in their long-term storage, the more possibilities they have for greater combinations. Needless to say, there are countless ways that different people can process the same information.

Self concept is a critical factor in the processing of information: the perceptual register at the beginning of the information processing model acts as a set of blinds, opening to experiences that render positive results and closing to experiences that result in negative outcomes. When new information has to compete against emotions, the emotions will always win. Sousa (1995) states that the only way to intervene is to convince the learner that opening to an experience will result in success.

In the early 1960s, neurosurgeons conducted research on epilepsy patients in which they severed the corpus callosum, the cable of nerves that connects the two hemispheres of the brain (Sousa, 1995). This procedure resulted in a dramatic reduction in the amount and the severity of the epileptic seizures; it also opened the door towards an understanding of the functions that each half of the brain controls.

The left hemisphere is defined by logic and controls the locus of speech, reading and writing. It is analytical, rational, literal, and recognizes words, letters, and numbers. The left hemisphere understands through the concept of time and sequence. The right half of the brain is the intuitive half and receives its information through images, rather than words or numbers. It recognizes patterns and processes several types of information simultaneously. The right hemisphere interprets information through context (tone of voice, body language) rather than literally. It comprehends spacial relationships, fantasy, and creativity. It recognizes faces, places, and objects

(Sousa, 1995).

Further research concluded that one hemisphere tends to dominate the other, but not to the exclusion of the other. Both hemispheres are still used; simply, the dominant hemisphere tends to be predominant during the solving of difficult issues and the like. For ordinary issues, the hemisphere able to handle the situation the most efficiently dominates (Sousa, 1995).

Knowing how each hemisphere processes information is key in determining learning style and offers clues as to abilities and personality and can be applied in the classroom to better understand how the brain learns (Sousa, 1995). An instrument for assessing hemispheric dominance is offered in the appendices.

Needless to say, most schools tend towards left hemisphere oriented curriculums and ideologies. Schools are structured environments on time schedules with rules and verbal methodologies predominating. Interestingly, girls are generally determined to be left-brained, while boys tend to be right-brained. This could explain why the majority of behavioral problems come from boys: they may be right-hemisphere oriented, and the schools generally do not accommodate that (Sousa, 1995).

This knowledge of how the brain functions and learns provides many clues as to how we can better plan for a successful learning experience. Sousa (1995) suggests the following thoughts be kept in mind when planning:

- Learning engages the entire person.
- The human brain seeks patterns in its search for meaning.
- Emotions are an integral part of learning, retention, and recall.
- Transfer always affects new learning.
- The brain's working memory has a limited capacity.

- Lecture results in the lowest degree of retention.
- Rehearsal is essential for retention.
- The brain is a parallel processor performing many functions simultaneously.
- Practice does not make perfect.
- Each brain is unique. (p. 130)

In order for these strategies to be successful in the educational environment, they must be implemented and maintained in a supportive environment. Thus, Sousa (1995) suggests that those educational systems utilizing the brain-based approach also instill the following support systems for positive results. *Peer coaching*, in which two teachers periodically observe each other teach, offering support and feedback for particular strategies offers a secure environment for teachers to take risks and try new techniques, rather than fear administrative observations. *Study groups*, a situation in which small groups of teachers and administrators study a specific topic in depth offer opportunities for growth and application of new strategies. *Action research* allows teachers to take responsibility for their professional growth and also gives them the validation they may need to incorporate new strategies into their practice. And *staff development workshops* where teachers can expand their practice are always valuable sources of growth. Finally, Sousa (1995) states that the effects and success of this process emanates from the principal: the principal must believe in and support the teaching staff's professional growth through inquiry and investigation.

With even this rudimentary understanding of brain-based research and its application in education, it becomes clear that an effective curriculum for successful learning in general, and teacher education in particular, is one founded in the arts and in reflection, with a brain-based understanding of how learning takes place.

The Outline and Practice of this Model

As several researchers have suggested, (Armaline & Hoover, 1989; Calderhead, 1993; Kennedy & Wyrick, 1995; O' Laughlin & Campbell, 1988; Roland, 1995; Roth, 1989; Valli, 1992) students in a teacher education program must learn to look beyond their own belief systems and experiences, planted in childhood and firmly rooted by the time they enter a teacher education program. A beginning project to foster a sense of community and openness within the class is to have students create autobiographical histories of how they came to where they currently are through education. The term "education" would not be limited to the traditional school environment we have all been a part of, as schools do not have a monopoly on education in general, or on the education necessary to be successful in our rapidly changing and increasingly global society. Rather, students would detail, visually and verbally, the experiences that informed their educational belief systems. It could take the form of a map of sorts, detailing the intersections of a variety of issues, both those addressed and unaddressed, understood and misunderstood and within a variety of contexts. It is important that the teacher not assign students to examine their specific schooling history, although particular incidents within the schooling history could be included. To do so would render a sequenced timeline of events that the student had little control over and that would prove monotonous. By having students simply map influences, critical incidents, unanswered issues, and the like, regardless of environmental context, students can later begin to detect patterns in both what they have learned and how they learned, as well as what they did not learn due to omission and a lack of consciousness. This process also allows for a recognition of and appreciation for the serendipitous events in our lives

by which we learn some of our most valuable lessons. Students could later use this as the foundation for an action research project that would address the treatment of specific issues in depth. By giving a concrete assignment without defining "the answer," students learn to open themselves up to a broader arena and identify patterns, which they can then address and draw their own conclusions about. These initial "maps" would be completed and shared at the outset of the term. This could then serve as a springboard for classroom discussions on the role of education within this society: who it serves and how, and how ideologies are perpetuated, much as Armaline and Hoover (1989) encourage in their article.

Students would also make journals that they would then use throughout the duration of the program. I have taught journal making with the use of paste paper to all ages and have found that when students have invested themselves in creating these deeply personal and beautiful journals, they are much more apt to use them. Fear of writing in a "perfect" journal can be eradicated by assigning a creative or reflective writing assignment when making the first signature so that when students later bind their books, they have already written in them. Students would be instructed to always carry their journals with them and to write in them daily, as it is only through continual application that the essence of any situation is revealed. Furthermore, research has shown that occasional writing is ineffective and can be deleterious as it does not bring about the depth and resulting confidence to become an effect in change or growth (King, 1993). Daily journaling fosters attention to detail: students will begin recognizing their perceptions of experiences and how situations were handled—they can then address these with, say, a teacher in the field and thus begin discerning intent and reasoning behind actions taken by more seasoned professionals. Students can use their

journals to record any ideas that come to them: an occurrence that sparks a lesson plan, a pattern that could be used in an art project, an issue that could be addressed at a later time, lists of items for the ideal art classroom, a design of the ideal art classroom. The possibilities are endless. Daily journaling also opens the consciousness of the mind to the recognition of patterns between a range of elements or classifications; it provides for a sense of empowerment over time, as the writer increasingly gains personal depth through introspection and reflection, seeing possibilities and the means by which to achieve them. Cameron (1992) recommends journaling for three, uninterrupted pages every morning without fail. In time, this removes the critic in all of us, allowing the subconscious more of a voice and ultimately leading to an increased openness, a greater variety in responses and options. This type of journaling can serve as a counterpoint to what initially begins for most as a record of events when they begin writing. Cameron also recommends not re-reading entries, initially, for about eight weeks, again in an effort to quiet the critical or judgmental aspect of our personalities, and also as a means for later showing personal growth.

As a first year teacher in a somewhat unsupportive environment, I began keeping a journal to simply pour out my frustrations and make sense of this new and alien environment I found myself in. I often found my idealized goals for the students and the school, as well as the content and means by which I imparted knowledge to my students at distinct odds with the role defined for me by the administration and some of the colleagues I worked with. I took refuge in journaling, both as a way to find a middle ground between my stance and that of the environment I worked in, and as a method of better defining my personal voice and style. I felt as if I was somewhat the *tabula rasa.* I have only vague recollections of my schooling experience; I tended to lean

towards a Socratic vision of myself as teacher, serving as facilitator or midwife in helping children manifest their creative expression. I turned to writing to better inform me of myself and of my practice within the context of work, keeping in mind that this first year of teaching was nothing, if not an experiment. I was somewhat Socratic in my journaling as well, questioning my methods and means as well as those of colleagues and administrators. I documented ideas for projects; I recorded the progress of projects and any technical difficulties encountered. I also wrote about specific children: those who I had difficulty dealing with as well as the many who provided me with new ways of looking at the world. I continually considered the teaching process, in waking as well as in a dreaming state, wondering how to best communicate what I wanted to impart, how to show children the means to create connections in their world with what they learned in my classroom, as well as how to offer a bridge to those children having difficulty in the environment of an art classroom. They have learned that there is one specific solution to any given situation or problem, only to discover that these paint-by-number solutions generally do not address the multiplicity of unique situations confronted daily in today's classroom. We, as a society, have reared at least two generations of independent thinkers now, and yet we have not considered the means by which we can continue to foster the positive aspects of independent thinking while maintaining a sense of connection and meaning; nor have we promoted that which we teach--independent thinking--within our profession. Reflection is not a top priority for beginning teaching professionals: they are primarily concerned with survival (Bullough, 1989), through the specific issues such as isolation, technique and competition (Valli, 1992). And yet it is only through reflective thought that comes with introspection that one can get beyond the narrow scope of one's initial limited initial practice and gain the

depth to act fully, cognizantly, in the present, responding to situations and needs as they arise.

A variety of readings would be assigned to also broaden students' focus. While selected to emphasize relevant issues, methods and strategies, students would also be required to bring in two articles of their own choosing that define other approaches to the educational foundation of this framework. Students would summarize their articles and then compare and contrast the essence of the chosen articles with that of the assigned readings and of other student's articles. The assigned readings would address brain-based research and methodology in creating curriculums in addition to other issues deemed necessary for a broader focus of the state of education today and towards their action research projects.

Action research projects are integral to this model, as they provide students with the opportunity to apply what they have been learning through reflection while addressing a topic of concern or relevance to them. Following the social reconstructionist framework proposed by Gore and Zeichner (1991), Armaline and Hoover (1989), and others, students would address issues of inequity, injustice, and social relevance in both the educational system and society. While the intent is to provide students with an opportunity to research one's own practice through journaling and applying what is learned through action research projects, it is my hope that students would be able to make correlations between themselves and others with very different circumstances, leading to a broader more compassionate, inclusive vision of the world. This in turn will result in the addressing of inequities through increased consciousness and the recognition that all persons, all actions, have an impact on the surrounding environment and beyond. It is my intent that this will also lead to action on

the part of the students, and they would be told as much at the beginning of the course. I also believe that action research projects will foster the students' ability to engage in their own subsequent research towards perpetual life-long learning. Sousa (1995) quotes John Cotton Dana: "Who dares to teach must never cease to learn." This is an increasingly true adage as our society is perpetually bombarded by new information and ever-changing truths. It is absolutely necessary that teachers be of the life-long learning mindset if they are to foster learning of any relevance or meaning. The only other option is complacency, a slow atrophy towards meaninglessness and irrelevancy.

In an effort to foster connection, break down barriers between the individual and the collective, between educational communities and society, all students would be required to engage in a volunteer community service program of their choice, with approval by the faculty, for the duration of their college program. Education in general, and collegiate education in particular, tends to perpetuate an insular environment with the focus on individual achievement and acquisition with little regard for contribution towards a greater good. Therefore, students would undertake some form of community service for, say, three hours a week, the type of service taking a variety of forms: tutoring, translating, working in after school programs, volunteering in Boys' and Girls' Clubs of America, helping at Habitat for Humanity, serving meals with Meals on Wheels, volunteering with AIDS hospice—the opportunities are limitless. The goal is for students to become aware of the variety of contexts in which education takes place and to recognize the value and the personal growth that comes in giving without the intent of getting something, generally monetary, in return.

I would also promote an arts education curriculum founded in a crafts-based apprenticeship program. While the intercurricular connections fostered by the fine

arts—demonstrating the environmental changes to artistic monuments, such as the Parthenon or stained glass windows, in a geography class, or applying the Fibonacci sequence and the golden mean to the composition of paintings and the design of Grecian architecture in a math class—are certainly worthwhile and in fact necessary, it seems that the fine arts have become divorced from the crafts. This has resulted in a loss of connection, between disciplines and to materials, and a lack of understanding for what process is. To rectify this and to reestablish a sense of usefulness, connection, and meaning, particularly for our youth, the fine arts and the crafts should be fused. An art teacher that has no understanding of art history, no clear understanding and a degree of competency in one of the crafts, will result in a teacher with a shallow, paint-by-number approach to art education. Such teachers will be unable to address the previously discussed loss of understanding for process among today's youth, the result of not knowing how things are created or manufactured because, increasingly, more and more is done for them. This has escalated to today's youth having little conception of where their internal power is, resulting in violent acting out in a desperate attempt to gain some control over their lives. This lack of internal power lies in opposition to the ability to reflect and results in victimization.

Novice teachers are assumed to be fully developed professionals upon completion of student teaching and prepared to take on the rigors of full-time teaching immediately (Wolfe & Smith, 1996). Simply put, this is unrealistic. As stated previously, over 50 percent of novice teachers leave within the first five years of beginning their careers (Wolfe & Smith, 1996), the results of a lack of support, discipline and classroom management problems, stress, and excessive work loads. Our society's valuation of education is apparent when we expect novice teachers to be fully developed

professionals able to handle any given situation within a maximum sixteen-week time frame. Many gifted novice teachers quit, finding the demands simply not worth it. If we are to keep novice teachers, which we increasingly need as this current teaching force rapidly reaches retirement, we must place them within a supportive environment and have some sort of indoctrination system in place.

This model takes its cue from Valli (1992) in confronting the major problems novice teachers contend with—isolation, imitation, technique and transference—with a support system for novice teachers. Deeply personal reflection and a focus on teaching thinking rather than simply teaching behaviors remedies the potential for imitation. Modeling behavior without analysis leads to mindless mimicry. Reflection offers alternatives for consideration; application of oneself to an action research project allows for practice to gain form and depth and dissolves imitation.

To disintegrate the overwhelming feeling of isolation and competition, the least that should be done is assigning an in-school mentor and an art teacher from another school as another mentor. The in-school mentor would serve to indoctrinate the novice teacher to the politics and idiosyncrasies of the particular school. It would be wise for the novice teacher to request the choice of a specific mentor from those qualified to do so and then spend some time observing the teachers. The novice should choose someone who clearly understands how the school functions, is well-respected by all, and is willing to share that knowledge with the novice: it will make that horrendous first year go so much more smoothly. The novice teacher should also request an external mentor, an art teacher at another close-by school, so as to get support and advice on art-related concerns and difficulties.

Although I found no permanent examples in existence in my research, there was the suggestion (Valli, 1992) of professional development schools, similar to medical education's teaching hospitals, as first proposed by Dewey in the 1970s.

Summary

I have proposed an approach to education founded in art, reflection, and service with a nod to a brain-based stance in learning. As it becomes increasingly apparent that our present educational system no longer serves us for a variety of reasons, the least of which is that today's society is one of ever-shifting truths, those who choose to work within this profession must create an effective means for achieving any worthwhile aims of education. Any approach considered must consider both an internal and external component, as it is only through addressing the underlying causes of education's shortcomings and problems that it will be effective. The untold number of various external approaches and curriculums, which have essentially proven to be the same methods under the guise of a new name, bear this out. Mine is but one of many possible approaches from this foundation: ultimately, each professional's approach will reflect their own unique abilities and be tailored to the unique learning situations they encounter.

Chapter Four will offer recommendations and will detail the use of reflection as a means of assessment.

CHAPTER FOUR
Further Applications and Recommendations

Reflection as Assessment

Simply put, all art teachers and artists would like to see the arts served as an essential component of the curriculum, as daily bread and butter rather than an after dinner mint for the wealthy. Ideally, all teachers, students and artists could intersect and collaborate towards a curriculum inclusive of the arts. Critical reflection and components of brain-based curriculums are both avenues towards that end. In very practical terms within the school environment, reflection allows you, as a teacher, to assess what children actually got out of the learning experience versus what you wanted children to take away from the experience. If you approach assessment from an organic standpoint, rather than a statistical one, you become invested in a never-ending cycle of growth and increasing depth for both yourself and your students. You no longer view assessment from the standpoint of the outsider-art teacher trying to justify the necessity of having the arts in the curriculum; rather, you see how to use assessment as a tool to encourage a greater degree of cognizance towards the necessity of the arts in a healthy society. You recognize that you already assess continually, whether the topic of assessment is yourself, your teaching methods, or your students.

Reflective journal writing has become an important component in assessment. Brookfield (1995) explains that reflective journal writing by students can offer teachers trenchant insight into the emotional and cognitive rhythms that students experience as learners. Regular journaling can become the means by which students open up to previously unknown pathways of perception.

Thus, reviewing journals enables the teacher to better organize teaching by

understanding what types of learning tasks and projects students are drawn to and best able to utilize their abilities. In addition, the teacher becomes aware of teaching styles most conducive to student participation, as well as the proper environment for encouraging students to take risks in learning. Factors that foster persistence in learning, as well as those that instigate low morale, depression, and loss of confidence, become apparent through the examination of consistent student journaling. Reflective journals can be used to document factors that are important to students by having them reflect on their experiences as learners. Teachers learn how students respond emotionally, as well as cognitively, to different learning situations and activities; students become aware of their strengths, weaknesses, predispositions, and habits as learners.

Assessing student journals calls for a great degree of sensitivity and compassion. A reflective journal encompasses far more than a sketchbook, notebook, or class book. It is deeply personal and, as such, private property. Yet, if the teacher instructs students to expect an occasional review, students will come to accept it. Still, caution and sensitivity are prerequisites for looking over reflective journals: you have entered the confidence and trust of a student who has, in turn, given you permission to examine his or her feelings, thoughts, ideas, and questions. You must do so with the understanding that there is no negative consequences or penalty for the student by his or her sharing this private property. One possible method for encouraging freedom of expression within the parameters of trust is to tell students to diagonally fold a page or paperclip

a section they do not want read by you; you, of course, respect and honor that (Bensur, 1996).

The journal is a mirror of the mind, heart, and soul of the student. It clues you into the thought process and value structure of the student, it reflects the foundational structure from which the student thinks and creates in daily expression. There are a variety of ways to assess reflective journals, depending on the ends to be achieved. The easiest, and the most superficial, way to assess journals is to simply count the number of entries over a period of time: the student's grade is based on a corresponding number of journal entries. The value of this type of quantifying assessment is questionable, particularly in light of the quality, the richness, of material that a typical journal contains. Another option for assessment is a teacher/student meeting, where the contents of the journal are discussed within the context of academic or class performance. In this manner, the student will recognize that thoughts and ideas, whether written or drawn, are a vital part of their overall and ongoing performance and growth. Obviously, assessment of student journals should be individualized, as they are the key to recognizing and implementing meaningful student application and performance.

As previously stated, I kept journals while teaching as a method of making sense of my role as an embryonic (a novice) art teacher in a largely unsupportive school environment. I was perpetually overwhelmed my first year and did not know how to address many of the dilemmas or difficult situations I faced daily. I knew what I wanted to achieve with my students and what I wanted to impart to them, but I frankly didn't know how to make that manifest amid discipline problems, as well as a difference between my agenda and role within the school and that of school administration. I poured out my questions, frustrations, discoveries, failures and dilemmas onto the page

on a near daily basis. Oftentimes, I was attempting to recapture what had happened as a consequence of an experience: I would mull it over, examine it from every angle, and attempt to find as many alternatives as possible. With slightly clearer insight, I could then make adjustments that sometimes worked, sometimes not. Journaling was clearly an internal investigation that provided me with the means to make sense of my experiences, their impact and consequences. Having done so, I could then feed that meaning back into my own professional development as well as into the quality of the program I was teaching. I quickly came to realize that I was having an impact: how I chose to do so was my decision and part of my professional development.

There are many ways to glean information from experiences for reflection and possible assessment. I was far too overwhelmed and defensive to attempt anything other than my private journaling the first year of teaching. After coming to the realization that I had to allow my students to take some responsibility for and have a vested interest in the direction and focus of the class, I began having them make Coptic-bound journals out of paste paper. The students took enormous pride in their journals, many even choosing to make another one to serve as the yearbook they couldn't afford. The journals were used in a variety of ways: as a link with the language arts and social studies curriculum, as sketchbooks, as yearbooks, and as journals. I found that the students' ability to engage in journaling was enhanced by the fact that they created their journals. If I needed to assess something in particular, I offered assignments with prompted entries. For example, I took 120 fourth graders to Atlanta's High Museum of Art to see the Picasso exhibition. It was a never-ending battle for me to gain permission to take this field trip, and in fact it was nearly cancelled the morning of the trip. I wanted to ensure that administrators and other teachers were able to

recognize the worth of this trip afterwards, and so I had students write about three specific things that interested them the most and to detail the reasons why. I also asked them to write about anything else they found surprising or unusual. Students loved having the opportunity to share what they had learned with each other and with the fifth graders who were denied the opportunity to go! This also gave me a wealth of information to use in justifying the necessity and validity in taking children on a field trip to see artwork in person. Regardless of the context, students began to recognize that I took an interest in how they expressed themselves and became increasingly open in sharing their writing and reflections with each other and with me.

Another method of assessing reflective journals is the creation of a rubric. This has been used by Bensur (1996) with the reflective journal serving as the foundation of the culminating project. Students in her foundations course undertook a final project in which they were to create a work of art, either two- or three-dimensional and in any medium, representing their cumulative experience of learning during the course. They were also to document, by any means, what they believed to be appropriate and supportable of what they learned and how they did so in the course. This final project was created by Bensur as a means for her students to gain clarity and focus in their intent, recognize their strengths and weaknesses, and learn their predispositions and habits as thinkers. The rubric is offered when the final project is assigned: it details the criteria to be used (detail, significance, and composition) and addresses the criteria at four levels--advanced, proficient, basic, and in progress. This basic rubric is negotiable when presented to the students and gives students clear parameters of what is expected at various levels. Thus, students accept responsibility for their learning and achieving, as they have had a stake in what they are learning, how they are learning it,

and how they will be assessed for the way they have synthesized and applied their knowledge (Bensur, 1996).

One-on-one interviews with students are another means of assessment of student reflection. You learn how students think about themselves and how that impacts their art, as well as the impact art has on their beliefs about themselves. Within the context of different classes, you and the children can reflect on how they see themselves differently in art versus, say, math for example, bringing about an awareness of the impact art has and how you as a teacher cause effect.

In terms of portfolios with older students, student work reflects how well students understand the topic or assignment. Over time, student work provides emerging patterns and understandings of greater depth. A range of work over a period of time from a single student also provides clues to demonstrated growth and informs you as to how you can best support a student in continued, or more effective, growth. Student work also allows for reflection on student intent: what issues or questions is the student focused on? Which aspects of the assignment intrigue a student? Where did a student place their energy or effort? Does the student challenge himself or herself, and if so, in what way?

Reflection on student work can inform you in a variety of ways beyond quality assessment. You learn about your teaching practice through student responses to assignments and are able to adjust and improve assignments accordingly. You are also able to discover which types of instruction and projects elicit the highest degree of student performance or involvement.

Although I have never been keen on external assessment through the use of questionnaires, it is a method of measurement used by many (Stout, 1986).

Questionnaires tend to be fixed, true/false format or multiple choice, but in terms of assessment they can offer an external measurement of comparison for reflection.

What does assessment reflect? Whatever we want it to, whether that be the impact of the arts, an improvement in independent thinking, an improvement in risk-taking, or the degree to which students are able to reflect and make more meaningful connections. As previously mentioned, it is through reflection that you begin to see yourself not as the teacher or an authoritarian but as a facilitator with a vested interest in students' growth. You begin to perceive your effectiveness as a communicator and collaborator with your students, on the interpersonal level and in terms of assignment or project. You plan a lesson, unit or program with greater care. Your credibility increases by simply being able to effectively communicate to others, by being present in the moment and thus able to handle arising situations with grace and reverence.

Recommendations

I have examined many definitions and applications of reflection in this study and have come to the conclusion that for any arts-based model of reflection in education to be successful, it will have to honor the unique viewpoints and synthesization process of the individual. Many tout the benefits of reflection, regardless of how it is defined and applied, and many have implemented this process into both teacher education programs and classroom situations. Several researchers in teacher education programs seem to look for immediate results upon implementation of a reflective program (Gore & Zeichner, 1991; Grant & Zeichner, 1981, King, 1993; Ross, 1989; Valli, 1992;), generally through quantitative studies. Ross (1989) is not alone in expressing her disappointment and surprise at finding her students' level of reflectivity did not increase in time, over the course of the semester. Yet, it seems to me that she is expecting a lot of her students

within a short period of time. She seems to be projecting her acquisition of deep levels of reflection onto her students, rather than considering where they are in intellectual development at that given point in time. Quantitative studies (in this case, measuring levels of reflection through a series of reflective papers or journal entries) measure only external responses or reactions to situations, often without any solicitation of viewpoint from participants being observed. And as noted earlier, brain-based research (as well as eastern philosophy and discourses on creative thought and practice) indicates external manifestations are only one part of the equation. The map of the interior experience and process is often viewed as irrelevant because it is not measurable through external, physical means. What a students states in a paper may or may not be a full reflection of what that student is thinking at a given point in time. Clearly, students need to be made aware of the different types and levels of reflection, if they are to be aware of what they are to strive for. Educators must be committed to the long-term development of reflection: this begins with the examination and uprooting of underlying educational structures and belief systems held by students, and perhaps by society, as mentioned previously. Viewing the profession of teaching as a lifelong means of learning, and reflection as one means by which one examines the past to live deliberately and consciously in the present, is key.

Reflection is a process by which the individual flows between both internal and external viewpoints towards a perpetual state of revision and growth. The individual senses external discord, which impacts beliefs, thoughts, or feelings in some way, and so the individual turns inward in an effort to better understand this change, make modifications, and then synthesize these modifications into external action. Those unable to be open to change and share their viewpoint fall into stasis, complacency,

irrelevance; while some measure of security may be temporarily gained, it is at the expense of long-term growth and internal empowerment.

Rilke (1934) was correct in his assertion that, "Patience is everything.... Everything is gestation and then bringing forth" (p. 29). We are so accustomed to simply reacting to external influences, rarely taking the time for introspection, for seeking the root of any difficulty or discord. Teacher educators would be wise to recognize the organic, ongoing nature of reflection: to do so would engender a more holistic approach to education. Rilke states:

> ...be patient toward all that is unsolved...try to love the *questions themselves* like locked rooms and like books that are written in a very foreign tongue. Do not now seek the answers, which cannot be given you because you would not be able to live them. And the point is, to live everything. *Live* the questions now." (p. 35)

It is also important to recognize that there are as many means of reflection as there are unique individuals: all methods that look inward for solutions and then thoughtfully act upon them should be considered as having relevance. For some, reflection takes the form of journaling; for others, namely M. C. Richards (1989), it is found in centering a piece of clay. And then there are some who reflect by periodically examining a growing stack of index cards, replete with necessary information, kept in the breast pocket of a jacket. The challenge for teachers will be to tune into each individual's method for making sense of their world and tailoring that into an appropriate means for thoughtful reflection.

Reflective practice is vital then, as it requires an ongoing development of consciousness through highly personalized introspection from participants. It is key that

educators and researchers consider the validity of reflection through various means of examination and analysis. The solicitation of feedback is essential if we are to begin understanding the reflective process and better impart the skills we want students to be cognizant of. This solicitation of feedback is not a popular path because it deconstructs traditional notions of power and validity. Teachers and researchers are no longer in positions of authority but instead are in collaborative ventures with students, thereby placing the students at the center of the teaching process. They can no longer construct curriculum or research so that the means justify the ends; they can no longer impose intelligence by routing it through personal intent, as they are now in an open-ended partnership with students and must solicit feedback from them. Essentially, the role of teacher or researcher shifts from that of a position of authority to one of partnership in service. And while many may question the validity and reliability of such an approach to education, as it is difficult to let go of traditional means and methods, I would posit that just such a change needs to occur.

Reflective practice is also vital in that it promotes the acceptance of responsibility by teacher education students. This will foster the uprooting of long-held and seldom questioned beliefs entrenched from a lifetime of participation in the educational system without every questioning intent. Several researchers (Armaline & Hoover, 1989; Roland, 1989; Ross, 1989) point out the necessity of this to deter naïve assumptions held about teaching and to promote meaning making. The question that lingers for future researchers is to discover exactly what types of instructional strategies will best foster this type of ideological shift.

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