ABSTRACT

The current "Writing Across the Curriculum" movement so prevalent in the public schools is based upon the premise that writing is a powerful tool for assisting learning, from the processing of facts through the creating of personal judgments. The "writing to learn" literature draws heavily on research in the fields of learning theory and cognitive processing to support the conception of writing as a teaching strategy. A conceptual framework designed to explicate how writing can be utilized effectively across the teacher education curriculum has been developed. Disciplines as diverse as philosophy and anthropology, information about what students in teacher education perceive as problems with their current education, and research on the writing/thinking connection have contributed to the development of the framework. This document discusses this development, including a description of the conceptualization of the teaching act on which it is based, presents some specific and detailed writing activities useful in a variety of education courses, and discusses the implications for future research of the conceptual framework presented. (JD)
A Conceptual Framework for Using Writing to Help Preservice Teachers Integrate the Knowledge Base

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Integrate the Knowledge Base

ABSTRACT:

The current "Writing across the Curriculum" movement so prevalent in the public schools is based upon the premise that writing is a powerful tool for assisting learning, from the processing of facts through the creating of personal judgments. The "writing to learn" literature draws heavily on research in the fields of learning theory and cognitive processing to support the conception of writing as a teaching strategy. But other fields of inquiry can provide insight into the unique power of using writing as a learning tool in the context of the teacher education curriculum. Drawing from disciplines as diverse as philosophy and anthropology, and then adding to this base information about what students in teacher education perceive as problems with their current education, as well as the research on the writing/thinking connection, a conceptual framework designed to explicate how writing can be utilized effectively across the teacher education curriculum has been developed. This document develops the framework, including a description of the conceptualization of the teaching act on which it is based, presents some specific and detailed writing activities useful in a variety of education courses, and discusses the implications for future research of the conceptual framework presented.
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Generate a list of the last five pieces of writing of any sort you have done. My own list would include such items as a grocery list, a phone message, a personal letter to a friend, an article for a professional journal, and the beginnings of a poem. Now, reflect upon your reasons for engaging in the writing you included on your list. Force yourself to go beyond the obvious explanation; for instance, students might state that they write research papers because their professors require them to do so. If pressed, students can begin to recognize why such assignments are given. The writing of a research paper ideally forces the writer to organize and synthesize information and, perhaps, to take a personal stance on the issue or content of the paper. If I consider the reasons behind the writing I have done, I find that the writing is driven by diverse needs. I write to remember, to organize my life, to express thoughts and emotions across the distances of space and time, to make order out of the chaos of data and then to communicate the results of my efforts to others, and to achieve the catharsis which comes with attaching words and the structures of language to otherwise untamable feelings and perceptions.

The current "Writing across the Curriculum" movement so prevalent in the public schools is based upon the premise that
writing is a powerful tool for assisting learning at all levels, from the recall of facts to the development of personal opinions, because it serves to assist the writer in all the ways outlined in the preceding paragraph. However, as Applebee and Langer (1988) note, teachers have yet to implement the concept of writing as learning tool in any significant way. Perhaps this is because teachers are reluctant to teach what they cannot or will not do themselves; teachers who are not comfortable as writers themselves are unlikely to ask their students to engage in writing to any great extent. It would seem, then, that one way to encourage teachers to use writing as a way to help them teach and to help their students learn in their own classrooms would be to provide preservice teachers with many opportunities to experience the power of writing as a heuristic as they proceed through their teacher preparation program. The goal of this presentation is to provide a conceptual framework for using writing in teacher education as well as to present some specific and detailed writing activities useful in a variety of education classes.

I. INTRODUCTION AND STATEMENT OF THE PERCEIVED PROBLEM

Developing a framework for using journal writing in teacher education requires a clear conception of the teaching act and of the knowledge and skills required by a teacher in order to effectively perform the tasks of teaching. Without such a picture, it will be difficult to discuss writing as an instructional
strategy within the context of the teacher education program. Teacher education programs vary in the emphasis placed on the diverse aspects of future teachers' development, and many researchers and theorists note that efforts to educate teachers in training have not been highly successful in developing teachers who perceive themselves to be competent in what they know and about what they do (Sizer, 1984; Goodlad, 1983; Ley, 1981; Quisenberry, 1980). Teachers and teacher educators call for a more integrated, balanced approach to teacher education, one which includes attention to developing the skills of reflective thinking and to developing self knowledge so that the teacher is more aware of the personal conception of teaching and learning on which the teacher operates in attending to his or her daily tasks related to education (Usher and Hanke, 1971; Landry, 1974; Aspy and Buhler, 1975; Pinar and Grument, 1976; Greene 1978; Apple, 1972).

Capra's (1982) comments on the problems of society in general can be applied to the field of teacher education in particular as an indication of what is needed in this area:

The major problems of our time are all different facets of the one and the same crisis which is essentially a crisis of perception. Like the crisis of physics in the 1920s, it derives from the fact that we are trying to apply the concept of an outdated world view - the mechanistic view of Cartesian-Newtonian science - to a reality that can no longer be understood in those terms. . . . We live today in a globally interconnected world in which biological, psychological, social, and environmental phenomena are all interdependent.
... What we need, then is a new paradigm - a new vision of reality, a fundamental change in our thoughts, perceptions, and values... a shift from the mechanistic to the holistic conception of reality.

Writing specifically about teacher education, Koehler (1985) states...

The most important issue facing us in teacher education is how we can teach skills, attitudes, and thought processes for which students do not yet have a perceived need... We must either develop ways of providing students with a schema in which to place the various techniques and strategies of teaching such that they will be recalled and used in later teaching, or develop a very different conception of the knowledge and skills to be required in preservice preparation (p.27).

As result of a felt need for creating a more holistic approach to teacher education and to develop future teachers' ability to synthesize and then apply what they learn throughout their preparatory programs, writers such as Zeichner and Liston (1987), Gore (1987), Tom (1984), or Schon (1983) advocate structuring such programs about the central idea of teacher as "reflective practitioner."

It appears from a review of the literature in the field of writing that writing can be used to foster the development of reflective, synthesizing skills (Applebee, 1981; Berthoff, 1981; Mayher, Lester and Pradl, 1983; Emig, 1977), but what is also needed is a total conceptual framework for supporting the use of
METHODOLOGY

The mode of inquiry used in this study is best known as the philosophical-logical approach to problem solving or the generating of more adequate theory (Knezevich, 1970). However, to be adequate theory, propositions advanced must be tested empirically, and the researcher should be able to use the propositions to predict and control the empirical testing. Since testing lies beyond the scope of this study, the expression "developing a conceptual framework" has been used to describe more accurately the level of philosophical-logical operations sought as outcomes of the study.

The mode of inquiry for this project was dictated both by the personal orientation of the researcher and by the nature of the problem being studied. I needed a plan which could facilitate the gathering and interpreting of data from research and theory in teacher education, research on the writing process, and from other cognate fields. The chosen plan is described best by the approaches of Griffiths (1959, 1964), and Goodlad (1966) and Glaser and Straus (1967), all of which depend on observation and description of specific phenomena and demonstration of relationships among those phenomena. Glaser and Straus (1967) state, "We suggest it is likely to be a better theory to the degree that it has been inductively developed from social research" (p.
Thus the process generally involved reading widely and determining a systematic way for integrating the material, following Kaplan's (1965) "interpretive model" which helps a research use the data from one field of inquiry to generate hypotheses concerning other subject matter. As Goodlad (1966) writes, explaining the meaning of "conceptual structure" in greater detail than other writers,

By a conceptual structure, I mean a carefully engineered framework designed to identify and reveal relationships among complex, related and interacting phenomena; in effect, to reveal the whole where wholeness might not otherwise be thought to exist. Such a system consists of categories abstracted from the phenomena that the system is designed to describe and classify, categories which can readily be discussed and manipulated at consistent, clearly identifiable levels of generality, and which can be developed from different perspectives (pp. 141-142).

Griffiths (1964) further elaborates on the method of theory, or conceptual system, development, stating that it begins with presumptions which lead to observations resulting in descriptions. Those in turn lead either to the development of Sensitizing or Integrating Concepts, which are phrased in this study as propositions, since the term proposition suggests that the concept involved is being suggested for discussion, analysis and ultimate acceptance. Sensitizing Concepts are those which identify specific phenomena observed in research; Integrating Concepts are groups of Sensitizing Concepts logically organized to develop a higher order
of conceptualization with regard to the phenomena under consideration (pp. 105-111). Both kinds of concepts can lead to theory, defined as a set of assumptions from which are derived laws which are then subjected to empirical verification. Figure 1 on the following page illustrates Griffiths' paradigm. In this study, "conceptual framework" should be inserted in place of "theory" since this investigation did not include the empirical testing of the components of the framework which was developed. Glaser and Straus (1967) summarize the methodology involved in the building of conceptual frameworks: the researcher must constantly take pains to discover what he or she may know. In this process, what is being accomplished is "to make the normal strategies of reflective persons into a successful research strategy" (p. 227).

As this study was conducted, ideas, research results, theories, and insights were gathered from the fields of philosophy, psychology, sociology, pedagogy, and from the research on the uses of writing. The data were codified into a set of propositions which comprise the conceptual framework, since, as Sanders, Phillips, and Johnson (1966) note, a given theory or conceptual framework will "contribute as an operational guide and as a basis for future action" only with "the successful identification of principles" (p. 2).

The steps that were followed as the study was conducted were to

1. describe the needs of teachers not often addressed in teacher education programs from a survey of the
Figure 1

Griffiths' Paradigm for Theory Development

"The Nature and Meaning of Theory" p. 104
literature on teacher education;

2. develop a substantive base for thinking about teaching, teacher education programs, and the use of writing as an instructional strategy;

3. abstract propositions from various cognate areas relevant to a discussion of teaching, teacher education, and the use of writing as a learning tool in teacher preparation programs;

4. develop a conceptual framework for using writing to learn in teacher education;

5. describe the kind of environment and the assumptions of teacher educators appropriate to the use of writing as a learning tool in teacher education;

6. describe a procedure for utilizing the framework to create appropriate writing activities relevant to the teacher education program and discuss the creation of illustrative assignments;

7. summarize the conclusions and implications for future research of the study.
II. SUBSTANTIVE BASES FOR USING WRITING AS A LEARNING TOOL IN TEACHER EDUCATION: DEVELOPING AN INTEGRATED CONCEPTUALIZATION OF THE TEACHING ACT.

The first task in developing a conceptual framework is to identify those fields of inquiry on which such a framework can be built. Many writers in the field of education contend that philosophy, psychology, social psychology, and sociology are valid areas of inquiry for conceptualizing a curricular program (Becker and Dumas, 1970; Johnson, 1968; Clark, 1965; Van Til, 1962). The first part of the conceptual framework thus has been generated from reviewing the assumptions, implications, research and theoretical frameworks from existential philosophy, perceptual and humanistic psychology, sociology, and related fields. As this literature is reviewed, it should be clear to the reader that the total conceptual framework is a kind of scaffolding of inter-related propositions drawn from these diverse fields of inquiry. The integration of these propositions may be represented as a diagram of the teaching act which integrates the knowledge bases, thinking skills, and tasks of teaching. The procedure used to develop this diagram involved reading widely in named fields of inquiry, using the concerns of teachers and educators about the need for more integration among the various components of the teacher education curriculum and about the need for more attention to the future teacher's individual personality as it relates to the ability to fill the role of teacher as a screen for the reading. Although the discussion which follows is organized around separate consideration
of concepts from these areas, many of the ideas do overlap categories. They are presented separately because of the procedure advocated by Griffiths (1964) for identifying Sensitizing Concepts or propositions.

A. Propositions Abstracted from Philosophical Sources which Contribute to the Development of a Conceptual Framework for Using Writing as a Learning Tool in Teacher Education

... philosophy and education are mutually reconstructive; they give to and take from each other, in the ebb and flow of thought and action; they are means to one another, and ends; they are process and product (p. 20).

Thus write Brauner and Burns (1965) in Problems in Education and Philosophy. They maintain, therefore, that philosophy is to education what a seeing eye dog is to a blind man. Without a clear and definite philosophy, Brauner and Burns state that an educator will not be able to identify preferred educational policies and practices and then to write them into a logical, consistent, coherent whole. Morris (1969) echoes this idea when he writes that, "philosophy shows us the main features of the terrain of our thought; it provides a general chain of ideas in relation to which we make our way progressively to the analysis and solutions of problems" (p. 2). And, Dewey (1916) advocates philosophical inquiry on the part of educators, stating that, "Philosophy is thinking what the known demands of us - what responsive attitude it exacts" (p. 381).
The culture of recent decades, the flavor of life, and changes in the customs of living, reflect an increasing emphasis on the inner life of the individual. Pinar (1974) expresses the basis for this emphasis:

It is difficult enough to understand the nature of one's own life in this last third of the twentieth century without attempting to explicate the meaning of the collective life. Yet, being who we are, may of us make the attempt just the same. After all, it is probably a warranted assumption that each dimension of level contributes to the others, so to have some idea of where we North Americans are in a social historical sense is probably to be able to make more sense of where I am or you are in a biographic sense. Self-understanding — its importance has been underscored since the Ancients. Today it would seem to take on additional significance (p. iii).

Books like Riesman's (1973) *The Lonely Crowd* and Whyte's (1972) *The Organization Man* as well as poems such as Auden's (1968) "The Unknown Citizen" and dramas such as Stoppard's (1967) *Rosencrantz and Guildenstern Are Dead* have, as a central theme, that modern society, while it raises the material level of many, tends to swallow the individual in its intricate machinery. Existentialism appears to be the current dominate philosophical movement, arising out of a need to deal with what Barrett (1969) notes as the tendency of modern society "to become a kind of bureaucratically organized flight from self, a flight into which everyone can easily
On the other hand, Pinar (1974) notes that a heightened consciousness evolves from one's thinking of self and others, then moves outward, manifesting itself in customs, lifestyles, and work. To base the quest for authentic existence on an understanding of self and others can counteract the sterility of a life focused on externals, on acquisition of commonly held values, and on vast consumption of material goods (p. 10). Seven propositions of existentialism follow which serve as a philosophical basis for guiding the development of a conceptual framework for using writing as a learning tool in teacher education in that, when taken together, they support statements by teachers and teacher educators who believe that teaching is such a personal act it cannot be separated from the individual's identity (Ryan, 1975). The principle belief of existentialism has to do with the need of modern man to become actively engaged in the struggle for authentic existence. Authentic existence is possible only people make the effort to know themselves and their own truths and to live in accordance with them, constantly reflecting on their beliefs, actions, and implications. It is acknowledged that other philosophies exist and that an emphasis on one of them might have led to a different conception of teaching and teacher education than the one developed through this study. However, existentialism is a prevalent, pervasive philosophy of the current times, and existential beliefs appear to relate to the statements of perceived inadequacies and needs made by teachers and teacher educators. These propositions were abstracted from the literature during the
process of reading and synthesizing.

1. Technology endangers us by its organization and standardization and mechanization, all of which can encourage an artificial existence.

2. Essence is existence. To exist is to move beyond and move toward the self. Dillon (1968) cites Kierkegaard who writes, "The self is not given; it is won in the fear and trembling of free choice" (p. 65).

3. Truth is subjective, and thus it cannot be directly imparted, so that the relation of the knower to the known is more important than what is known, and confrontation between the knower and what is to be known must be encouraged.

4. Art is a valid way of knowing and of moving beyond and toward the self.

5. Authentic people are passionate, engaged and involved in life, and they relate to others on the basis that they, too, are moving toward self-actualization.

6. Authentic choice and engagement unify past, present and future.
7. Instructional strategies which will help students of education focus on the nature of their experiences with, and relationships to, artifacts, settings, and their entire educational journey should be employed in teacher education programs.

As Kneller (19) writes, "In order to know, one must be" (p. 134). Existentialism is committed to the task of developing the choice-making power of the individual, and existentialist education emphasizes intellectual rigor and the development of choice-making and reflective thinking skills. While acknowledging that an individual's decisions are influenced by past experience and personal history, the individual, says the existentialist, is responsible for understanding these influences and making responsible decisions. In the next section, writing will be examined as one strategy for fostering this kind of reflective, integrative thinking.

B. Propositions Abstracted from Psychological Sources Which Contribute to the Development of a Conceptual Framework for Using Writing as a Learning Tool in Teacher Education

As I read in the areas of humanistic psychology and phenomenology, it became apparent that the thinking of professionals in these fields relates to the beliefs of the existentialists; however, their conclusions are based on different methods of inquiry. For example, both are concerned with the
manner in which we learn or acquire knowledge. But while philosophers reach their conclusions through the process of logic, psychologists tend to prefer observational and experimental data as bases for their conclusions.

Behavioral psychologists, represented by Skinner, investigate the nature of human instincts and identify stimulus and response as key concepts in their psychology. Behaviorists study the learning process by focusing upon the relationship of stimuli and responses and what occurs between them. For the most part, according to behavioral theory, learning can be explained in terms of conditioning; behavior is "learned" when the probability of a particular response to a particular stimulus is very high. In earlier decades, there were efforts to develop teacher education programs based on a competency model drawn from such principles which sought to train future teachers to make appropriate responses to given classroom stimuli. But, as teacher educators such as Kleibard (1973) note, the classroom is full of too many spontaneous, complex forces for such training to be totally effective.

Field psychologists recognize that behavior occurs as a result of the complex interaction of the personality of the individual and of the environment in which he or she exists. Gestalt psychologists would state that learning occurs when individuals find new ways of utilizing the environment, including themselves. Insights are defined as an individual's perceptions of his or her environment and these perceptions influence subsequent action. The degree of utility, or truthfulness, of an insight depends upon the
proximity of the perceptions to the actual relationships in the environment. Bigge and Hunt (1962) note that according to the field psychologists, for learning to take place in schools, an interaction of the life spaces of teachers and students occur. Teachers therefore have to determine their own psychological structures and those of their students, helping them to develop insights into their personal life spaces. Since those life spaces change with time, then absolute values or teaching techniques cannot exist, and teachers must therefore learn flexibility and decision-making skills.

In theory and practice, humanistic psychology emphasizes the movement toward "self actualization" through "transpersonal experiences," terms coined by Maslow (1954) and used by Grof (1976). According to Walsh and Vaugh (1980) transpersonal psychology is concerned either directly or indirectly with the recognition, understanding, and realization of nonordinary, "transpersonal" states of consciousness, and with those psychological conditions which act as barriers to transpersonal realizations. These experiences result in the state of transcendence described by the existential thinkers, and transpersonal, humanistic psychologists are working on research which demonstrates the importance of encouraging the same sort of spiritual quest for meaning deemed crucial for authentic life by the existentialists.

Wilbur (1975) synthesizes transpersonal, or humanistic, psychology and existential philosophy in his concept of "spectrum psychology." Wilbur unifies thinking characteristic of both
Eastern and Western cultures into a spectrum of human consciousness, each level of which is characterized by a different sense of identity. At the "ego level," a disembodied self is thought to exist within a body. This level of thinking might be best explained by the phrase "I have a body," as opposed to the phrase, "I am, in part, a body." At this level, the individual's conception of self is fragmented into the facts of the ego as identified by Freud.

At Wilbur's second level of identity, the biosocial, the individual recognizes that his or her social environment as mapped onto his or her biological organism affects his or her outlook and behavior. Thus individuals perceive themselves to be a product of the interaction of biological and social factors. Social psychologists, anthropologists, and sociologists study people at this level. Through journal assignments, prospective teachers might be given opportunities to explore how the interaction of biological and social factors will affect their ability to teach and their style of teaching within the social context of the school.

Beyond the biosocial level of identity, the existential level, states Wilbur, is characterized by a sense of wholeness which involves an awareness of the entire mind/body system as an integrated, self-organizing totality. The dualism of mind/body is overcome as the individual moves toward self-actualization. On the transpersonal level, the individual is self actualized and is able to recognize his or her identity as a part of a larger, more cosmic, consciousness. For teacher educators, Wilbur's spectrum
of human consciousness suggest the need to develop a view of the teacher and the teaching act which emphasized integration of self-knowledge and other knowledge bases. And, if the teacher educator agrees with Wilbur that the most effective individuals are those moving toward self actualization, the teacher educator would take care to develop instructional strategies which encourage this movement toward integration while providing an environment in which the prospective teacher can meet his or her affiliation and achievement needs.

Jung would term Wilbur's last level of identity the sense of the collective unconsciousness. According to Capra (1975) Jung finds that this level is best represented by the language of myth: "Myth embodies the nearest approach to absolute truth that can be stated in words" (p. 43) Grof (19756), who terms this level of identity the "psycho-dynamic" level, states that it is clearly autobiographical and individual in origin, and therefore he encourages the individual to search out the emotionally relevant memories and unresolved conflicts of his or her past to arrive an awareness of the transpersonal facts of existence. Grof advocates helping individuals to face true "existential crises" which will force them to examine seriously the meaning of their lives and the values by which they live. Prospective teachers could be directed to articulate and examine the values by which they say they will teach and on which they will base their classroom behavior and decision-making processes.

Phenomenologists hold a theory, similar to that expressed by Wilbur, and Grof, than an individual's behavior depends upon his
or her perceptions of, and then interpretation of, an experienced stimulus. The meaning individuals attach to situations is also part of their perceptions of it, and of the elements within it, according to Clayton (1965). Kelly (1962) also states that perception is selective, since selection or rejection of elements from the environment is determined on the basis of experience and unique purpose. The direction taken by the self as it grows depends on these selections and rejections. "The self has to be achieved; it is not given" states Kelly (1965, p. 2). Recent work by teacher educators such as Pinar (1989) or Grumet (1989) is based on a belief drawn from such psychological bases and existential belief that the individual creates the self through choices made. Writing, it can be shown, can help prospective teachers systematically and critically synthesize their knowledge and beliefs in order to make appropriate, personally meaningful choices.

Psychologists such as Laing (1967) or writers such as Capra (1982) take this idea of the uniqueness of self one step further, saying that if individuals fail to come to grips with their uniqueness, mental illness can occur. Capra (1982) writes,

Failure to evaluate one's perceptions and experience of reality and to integrate them into a coherent world view seems central to serious mental illness. . . . Genuine mental health would involve a balanced interplay of all modes of experience, a way of life in which one's identification with the ego is playful and tentative rather than absolute and mandatory, in which the concern with material possessions is
pragmatic rather than obsessive. Such a way of being would be characterized by an affirmative attitude toward life, and emphasis on the present moment, a deep awareness of the spiritual dimension of existence (pp. 377-378).

The preceding overview indicates that humanistic psychologists and phenomenologists share, with the existentialists, a belief in the importance of developing an individual's awareness of, and then acceptance of, self, if authentic existence is to be possible. Their overriding assumption is that an individual's behavior depends upon the individual's perception of the world and its meaning to him or her at the time of action. Prospective teachers should, therefore, be guided to understand their perceptions, beliefs, and values and to scrutinize their behavior for consistency with their understanding of students and schools, and their subject matter. This is because, as Purkey (1978) notes, "actions taken that are incompatible with one's self-image are likely to result in psychological discomfort and anxiety" (p. 1).

The following propositions, generated as a result of additional readings in the contemporary literature of humanistic and phenomenological psychology, are useful tools in building a conceptual framework for the use of writing as a learning tool in teacher education.

1. It is important for teachers to be aware of who they are, of the value system upon which they operate, and to be comfortable with that sense of self in order to grow and develop as a teacher.
2. Prospective teachers should be guided to develop an internal locus of control.

3. When a teacher possesses a higher level of self knowledge and self regard, he or she is more likely to promote higher levels of self esteem in students.

4. When teachers possess higher levels of self knowledge, they also demonstrate higher level thinking skills, and such skills can be fostered through certain kinds of instructional strategies.


In the preceding section, propositions from humanistic psychology were discussed which contribute to a conceptualization of the effective teacher as someone moving toward self actualization, operating at higher levels of thinking, and possessing a good deal of self knowledge. In this section, discussion centers on how individuals moving toward self actualization interact with the organization or society in which they exist, each shaping the other. Since most often teaching involves the interaction of the teacher and the students within the
social context of the school, and in the larger context of the community, information from sociology, social psychology, and anthropology, all fields concerned with the investigation of the individual's interaction with the larger society or culture, is relevant. Given the emerging conceptualization of the teacher and the teaching act, involving the need for self-initiating, self-knowledgeable, reflective individuals who are willing to be active participants in the learning process, organization theory which describes the kind of environment most conducive to encouraging the development of such attributes is particularly important. Nash (1966), McGregor (1960), Shingleton (1974) and Frieman, all working in the field of organizational theory, note that the wholeness of a person is realized through his or her dynamic interactions with other people. In their view, individuals stand at a tension point between personal and social confirmation. Friedman emphasizes that the individual's confirmation within society should be, in some significant sense, a confirmation of the individual as a unique person, a confirmation which occurs most readily in a pluralistic society. The implication for teacher education of these beliefs is that the teacher education program should be open to pluralism, and instructional strategies should be devised which encourage the development of individuality.

Theorists such as Getzels (1958) depict the interaction between the tendency of the school to be a conserving agency and the need of individuals to satisfy personal objectives in order to contribute to the social organization. Lovell (1967) and Koestler (1978) also note the existence of subsystems in organizations which
are both wholes and parts, such as the individual in a social organization who functions as an autonomous unit as well as a part of the total systems. Such an individual has an integrative tendency to function as a part of the larger whole and a self assertive tendency to preserve independent identity. To survive, the individual must strive for balance between integration and self-assertion. Becker (1971) elaborates on this tension by outlining six common human problems which individuals must answer as they seek to interact with society, all of which might make appropriate writing topics.

Organizational theorists such as Frymeir (1969) also note the importance of an individual's understanding of the change process if organizational change is to be effected in a deliberate way. While Friere is not a researcher in the empirical sense, he speaks out of his own extensive experience with oppressed Latin Americans, experiences which forced him to reshape his own thinking, and he substantiates his opinions with anecdotal and case study information. He finds that for change to occur, individuals must be viewed with the conviction that no matter how ignorant or submerged they may be, they are capable of looking critically at their world in a dialogic encounter with others:

Man's ontological vocation is to be a subject who acts upon and transforms his world, and in so doing, moving toward ever new possibilities of a fuller and richer life, both individually and collectively... with the proper tools for such encounters, he can gradually perceive his personal and social reality as well as contradictions in it, become
conscious of his own perception of that reality, and deal collectively with it - and the old paternalistic teacher/student relationship is overcome (p. 12).

Without individual growth and opportunity for individuals to feel self esteem, little movement toward accomplishment of organizational goals occurs. Maslow (1965) that self regard in a job situation occurs as a result of individuals perceiving themselves to be in situations in which they can display competence and thus gain the confidence, recognition, and respect of others, both as people and as role holders, which leads to self respect. For future teachers to perceive themselves in this way, teacher educators will have to attend to the nature of the environment and the nature of the instructional strategies they create for their own classrooms; using writing as a learning tool is one method for creating such an environment and for helping future teachers reflect on how they can, given their understanding of the school, students, and themselves, work toward positive growth and change.

Using writing as a learning tool also helps accomplish the creation of genuine dialogue between students and teachers called for by theorists such as Friere (1971), Rogers (1969) or Dewey (1910) as a means of understanding the society and the individual's relationship to it. Dewey (1910) speaking as social philosopher, writes,

*Society not only continues to exist by transmission, by communication, but it may fairly be said to exist in transmission, in communication. . . . Men live in a community by virtue of the things they have in common, and communication*
is the way they come to possess things in common (p.5).

However, for true communication to take place, the speaker or writer must understand the frame of reference of the person to whom the message is being sent. As Berman (1971) notes, there are certain process skills associated with the ability to communicate effectively: perceiving, showing concern, organizing and systematizing, creating, decision making, and dealing with the ethical. Dewey, in Democracy and Education (1916) summarizes the importance of such understanding when he writes,

To formulate requires getting outside of it [experience] seeing it as another would see it, considering what points of contact it has with a life of another. . . . Except in dealing with common places, one has to assimilate himself imaginatively into something of another's experience in order to tell him intelligently of one's own experience (p. 5).

Thus, teacher educators should involve future teachers in sharing their perceptions as a way to enlarge each other's view of life while coming to a deeper understanding of their own, individual bases of knowledge.

The concept that self understanding is necessary if an individual is profitably, both to self and others, to engage in and contribute to society operates to be reinforced by theory and research in sociology, social psychology and anthropology. In addition, sociological and anthropological studies also indicate that individual identity is fashioned through interaction with society and the larger culture, and that certain kinds of environments are more conducive than others to promoting the kind
of interaction which leads to individual growth. The future teacher, then, needs to be aware of how this interaction affects identity and social engagement on a personal level. He or she should develop some understanding of how personal identity at a given moment has been influenced by societal and cultural factors, and as this understanding develops, future teachers should enhance their appreciation of the forces which will be at work on their future students. Also, since the school is a social organization, future teachers should be guided to develop insight as to how functioning within a school organization will continue to affect their identity and sense of self. The ability of the teacher to institute the change process will depend, in part, on these understandings, which can be developed through the practice of critical reflection to turn experience into practice (Boud, Keogh, and Walker, 1985; Posner, 1985; Cruickshank, 1971). Propositions drawn from readings in the areas of sociology, social psychology, and anthropology are presented below:

1. Individuals move more readily toward self actualization in pluralistic societies.

2. The behavior of a member of a social organization will be affected by the interaction of personal needs and institutional aims and needs.

3. When teachers understand the nature of the change process, especially as it occurs in schools, they are
likely to be more effective in encouraging change.

4. When teachers understand the factors which positively and negatively influence the process of change, they are more likely to promote change effectively.

5. When the individual participates in dialogic encounters with others in his or her organization or society, he or she is more likely to feel him or herself confirmed and to receive information which allows him or her to continue to grow as an individual and member of that society.

6. Communication occurs most readily when the encoder understands the message to be sent, where it comes from within his or her own frame of reference, and the frame of reference of the receiver of that message.

7. When future teachers address certain issues about the nature of the school, its relationship to the individual, both teacher and student, and its relationship to society, they will discover a clearer sense of identity, both as an individual and as a member of the social system.
Bases, Skills, and Tasks Involved in Teaching

In the first section of this piece, it was suggested that teacher education programs have not been as successful as they might be in producing teachers who feel confident about what they do, and why they do it in the manner in which they do. This appears to be the case, in part, because most programs tend to give little attention to helping future teachers increase their self knowledge while also learning to integrate the various skills, knowledge bases, and tasks of teaching. Parts A-C of this section contain information from various cognate areas which support the contention that a knowledge of and acceptance of self are important if the individual is to engage in productive communication and work in a social context. American society, particularly in the schools as they currently exist, appears to be oriented toward rational thinking (Capra, 1983), a tendency toward conformity, and a technological approach to learning. However, the literature from the various cognate areas also indicates the need for attention to the development of a more holistic approach to life. Research by various psychologists suggests in particular that future teachers, who will be responsible for developing the qualities of independence and reflection and self regard in their students, would acquire such attributes themselves. Now pedagogical research and theory will be discussed and propositions will be abstracted, and then these will be integrated with the propositions from the preceding three sections to develop a graphic illustration of the teaching act, which is presented in the last segment of this
The elements of the teaching act, the competencies required by effective teachers, and the kinds of knowledge necessary for performing the tasks of teaching are discussed so that, in the next section, writing as an instructional strategy can be grounded in, and focused on, the integration of the prospective teacher's knowledge of self with other aspects of the teacher education curriculum.

Methods course texts, both generic and for specific content areas, articles on state department of education requirements for future teachers, theoretical books on the skills and tasks of teaching, and publications by professional organizations concerned with teacher certification provided the basis for the propositions abstracted in this category. Additionally, authors such as Jackson (1968), Goodlad and Klein (1970), Silberman (1970), or Goodlad (1986) provide insight about the nature of what teaching currently is and what it should be. For instance, Silberman identifies the primary problem with education as it currently exists as "mindlessness" in the schools. He and others who investigate what happens in the classroom find that educators often are not aware of what they are doing, of who they are, and of what values they hold, and he identifies this lack of self awareness as the crux of the crisis. Combs (1974) and others working in the area of supervision of instruction identify a need for teachers to be educated to view themselves as instruments in their work, and he calls for teacher education programs to help future teachers discover their "personal idiom" (p. 8).

When teachers engage in reflection, self renewal is more
readily accomplished than when teachers merely fulfill a role in a automatic way. Grumet and Pinar (1976) use the term "currere" to express their perception of the need for future teachers to engage in reflection as a central task in their preparation. The goal of "currere" is that of making use of what is read and studied for the individual's own purposes, and the method of "currere" is a "regressive-progressive-analytical-synthetical procedure...a systematic attempt to reveal, using Emerson's phrase, individual life history an the historical moment, the truth of the moment" (p. 106). These authors define what students, based on their previous experiences in education courses, expect, and even demand from such courses:

Our students expected a methods course which they would rely upon to quell their anxiety even as they despised its limitations and superficiality. They might prefer to learn lesson plan formats than to examine their own responses to literature and discover their own ways of organizing and structuring their ideas. They would prefer to learn gimmicks to attract the attention of their students than to examine their own responses to a poem, to articulate what in its rhythms, images, content was important to them. They would prefer to discuss discipline problems and nongraded classrooms than to record their own responses to their students, noting whom they like, who repelled or frightened them. They would choose to study the school as a means of socialization rather than examine their reactions to it, recording what made them anxious, inspired, uncomfortable, excited (p. 150).
Engaging in such self reflection can then provide a basis for dealing with the tasks expected by most school districts of teachers. Synthesizing overviews of the tasks of teaching as outlined by authors such as Henderson and Lanier (1971), Pierce and Lorber (1977), Clark and Starr (1986) it is possible to create a list of teaching tasks which includes administering and managing the classroom environment, curriculum development, organizing for instruction, delivering instruction, selecting materials, working with colleagues, dealing with the public, and evaluating both self and student progress. To accomplish these tasks, theorists such as Wragg (1974), Allen and colleagues (1969), Cooper, Weber, and Jones (1973), or Fagan et al (1981) argue that future teachers need to develop such diverse skills as planning, designing, observing, analyzing, communicating, searching, abstracting, synthesizing, facilitating, coordinating, and empathizing. Coker, Medley ad Soar (1980) argue that listing skills in broad, rather than narrow, terms is the most appropriate format because teachers need such broad skills as observing, abstracting, and empathizing to determine whether they should engage in a specific skills, such as making contact with a student who is off task. This is the same orientation as that proposed by Shulman (1987)

The same skills will be applied in determining how to accomplish the teaching tasks while balancing knowledge about self, students, the total teaching environment, general knowledge, knowledge of pedagogy, and knowledge of specific content areas. The recent publication of AACTE on the knowledge base for beginning teachers (1989) also emphasizes the complex nature of the knowledge
base out of which teacher function, and surveys of beginning teachers conducted by researchers such as Fagan and Laine (1980) or O'Rourke (1983) indicate that beginning teachers would have liked more attention paid during their teacher preparation programs to strategies for dealing with the multiple demands and complexities of the total teaching situation. Propositions about the nature of the teaching act drawn from the literature reviewed above, as well as from the current interest in developing the habit of reflection in future teachers include the following:

1. Teachers and teacher educators also believe that self knowledge is a goal of teacher education and is related to effective teaching performance.

2. When teachers engage in the habit of self reflection, self renewal is more readily accomplished.

3. The tasks which most school districts expect a teacher to perform include administrating and managing the classroom environment, curriculum development, organizing for instruction, delivering instruction, providing materials and resources for instruction, working with others on the staff, public relations tasks, and evaluation of self and of student progress.

4. Skills that are necessary for accomplishing the teaching tasks include planning, designing, observing, analyzing,
communicating, searching, abstracting, synthesizing, facilitating, coordinating, and empathizing.

5. The knowledge bases essential to future teachers include knowledge of self, of students, and of the total teaching environment.

E. Graphic Descriptions of the Aspects of Teaching and Their Interrelatedness

Understanding the interrelatedness of the components of the teaching act is pertinent to the development of propositions concerning the use of writing as a learning tool in teacher education. Several illustrations are provided in this section in an effort to graphically indicate the relationships among the teaching environment, the teacher, and the student. Other illustrations depict the relationship among the teacher tasks, skills, and realms of knowledge. Developing awareness of and understanding of these various relationships is the purpose of using writing as a learning tool in teacher education. By examining such depictions of the relationships of the factors which affect the performance of the teaching act, it is hoped that teacher educators will be better able to develop writing assignments and activities designed to focus future teachers' attention on specific aspects of teaching behavior and on the implications of their knowledge of self to their performance as teachers.

Illustrations include Smith's (1960) Pedagogical Model, Ryan's

The development of teaching competence is the focus of preservice teacher education. The future teacher is made aware of the various factors which will affect his or her performance as a teacher and is asked to consider how he or she will decide whether to reject or integrate the various inputs received from the teaching environment and the students. The preservice teacher has no specific students from whom to gather data on which to base teaching behaviors and decisions about classroom management or delivery of instruction. However, the preservice teacher has been a student him or herself, and can, through reflective writing to learn strategies, recall his or her own feelings and perceptions as a student or can recollect the behavior of other students in specific situations. Using this information from their own "life spaces," the preservice teachers can, then, practice such tasks as the planning of a sample lesson with a more realistic conception of how it will be received. Also, preservice teachers may not have a specific environment into which they must integrate themselves. But, through writing to learn activities, students might be directed to consider what they can contribute to a school organized for team teaching and integrated, issue oriented courses as opposed to how they would perform in an environment in which accountability concerns were pervasive.

Such decisions will be based also on the future teacher's
Figure 2 - A Pedagogical Model (Smith, 1960, p. 234) cited in Gage (1972, p. 98).
Figure 3  Ryan's Paradigm Illustrating the Integration of Teaching Behavior (1960, p. 18)
The teacher
Situational, motivational, cognitive, and genetic factors
Instrumental act (behavior of teacher i in situation j)
Environmental event
Goal response (goal behavior of teacher i in situation j)
Hereditary factors and factors modified by reinforcement (Motivational, cognitive)

The pupil
Situational, motivational, cognitive, and genetic factors
Instrumental act (behavior of pupil i in situation j)
Environmental event
Goal response (goal behavior of pupil i in situation j)
Hereditary factors and factors modified by reinforcement (Motivational, cognitive)

Figure 4. Ryan's Dyadic Sequence (1960, p. 20)
Figure 5 Austin's Model of Supervision of Instruction (1970, p. 138)
Solid lines represent intrapersonal communication via the nervous system, etc. Dashed lines represent interpersonal communication via vision, speech, etc.

Figure 6 Runkel's Model of Pupil-Teacher Interaction (Gage, 1972, p. 104)
background in the liberal arts and sciences, knowledge of students and social and psychological foundations of education, knowledge of pedagogy, and understanding of self. This background integrates with the future teacher's understanding of the tasks teachers perform and with skills in various aspects of critical thinking. In figure 7, I have tried to illustrate a possible way to view this interaction. The effectiveness of the teaching act is determined by the relationship among these elements. It should be noted that the task, skill, and knowledge areas are not intended to be descriptive of actual or desired characteristics of the given teacher. Rather, they are the responsibilities generally associated with teaching as reflected in the literature on teaching, and which future teachers are often asked to practice and demonstrate.

Each cell in this figure represents the relationship among the three factors, one from each of the axes. Discussion of a sample cell is provided below in order to demonstrate applicability of this model for guiding the use of writing to learn strategies in teacher education. While teaching practices probably cannot be so segmented, the group of actions associated with each cell can be viewed as a separate entity for the purpose of analysis, as in figure 8. Organizing for instruction begins with clarification of the affective and cognitive goals and objectives for the total unit of instruction within which a given lesson is to occur. The teacher then decides which of those unit goals will be the focus of the specific lesson, given an understanding of the sequence in which objectives should be addressed to accomplish the goal and
Figure 7 Relationship among Knowledge Areas, Tasks, and Skills of Teaching (Stover, 1985)
Figure 8  Sample Cell from Organizing for Instruction Task Area
knowledge of objectives already met.

After the targeted objectives for the specific instruction segment are defined, criteria for determining if success in meeting them are developed. The teacher clearly states what student behavior will be accepted as evidence that the objective has been met. The next step is to describe the specific instruction segment. The teacher must synthesize a great deal of information to arrive at an appropriate plan. Teachers must take stock of available materials, must incorporate what they know about the students and their learning styles, must organize their instructional plans accordingly. They must also consider their ability to be effective in carrying out the specific plan given what they know about their own personality and their teaching strengths and weaknesses.

Organizing for instruction is a task teachers perform every day. Many teachers internalize the various factors which they consider as they prepare for and implement instruction, as Berliner's recent work with expert and novice teachers illustrates. But beginning teachers identify a need to be directed toward consideration of these same factors so that their planning is more realistic and so that the plan can be implemented most effectively. Through writing to learn activities, teacher educators can guide future teachers to consider each aspect of organizing for instruction. And, the students can also use such writing activities as a way to keep track of the process they use for evaluation and modification of their planning.

In the flow chart of figure 9, I attempt to combine the two
sorts of illustrations discussed already in an effort to capture the complexity and the constant projective and recursive qualities of teaching performance. Knowledge and acceptance of self appears at the head of the chart as it is perceived to color understanding of other realms of knowledge which affect the decisions teachers make. The decision making process involves constant interaction among the tasks of teaching and the skills of thinking required by teachers. Any decision made and implemented can then be evaluated for its effect and effectiveness, and this evaluation is fed back through the individual’s perceptual screen. Writing can be used as a tool, it will be argued, both for exploring "what if" situations regarding certain kinds of decisions, and it also can be used to capture for future reference the workings of the individual’s mind as her or she makes decisions and explores options.

This flow chart, figure 9, was developed through consideration and synthesis of the propositions articulated earlier in this section. The three kinds of elements, knowledge, tasks, and skills, were drawn from the propositions in the fourth portion of this section, that dealing with pedagogy and teacher education. The decision to head the chart with "knowledge of self" arose from the accumulation of the propositions drawn from philosophy and psychology which suggest that the most effective teachers understand themselves and the way in which their perceptions of their world are influenced by their self knowledge. The decision to generalize about knowledge of pedagogy into an emphasis on the decision-making process arose from the propositions in philosophy
Figure 9 Conceptualization of Teaching

Knowledge of Self

Social and Psychological Foundations
- Knowledge of local students, school, community

General Knowledge
- Knowledge of Specific Content Area

Knowledge Bases

Knowledge of Pedagogy

Decision-Making (Selecting and Implementing Appropriate and Congruent Materials and Strategies for...)

Tasks
- Evaluation
- Resources
- Objectives
- Instruction
- Organization of

Skills
- Coordinating
- Empathizing
- Analyzing
- Planning
- Abstracting
- Searching
- Observing
- Evaluating
- Facilitating
- Communicating
- Designing

Feedback
which suggest the need for active engagement in any aspect of life if it is to be authentic, propositions supported by current interest in teacher as reflective practitioner. The feedback arrow which flows in both directions was added as a result of information discussed in the section which suggests that communication is a two-way encounter and that for growth of the individual to occur, feedback through communication is necessary. Proposition #7 from part C summarizes the interaction of the school society, students, knowledge of content, and knowledge of pedagogy with the individual's identity. Thus this figure is a means of depicting the continuous flow of inputs and outputs a teacher must juggle from students and the total environment, an understanding of self, knowledge received from teacher education programs, and understanding of the skills and tasks of teaching.

III. A SUBSTANTIVE BASE FOR USING WRITING AS A LEARNING TOOL IN TEACHER EDUCATION: INVESTIGATING THEORY AND RESEARCH ON THE WRITING PROCESS

The information presented in the first section suggests that teacher education during the 1980s was in a state of fragmentation. Various approaches to teacher education and diverse strategies of instruction have been employed, but regardless of the type of program discussed, teachers, teacher educators, and the public have not perceived teacher education to be effective in accomplishing its objectives. The information presented in the second section drawn from readings in such fields as philosophy, psychology, sociology, and pedagogy, suggests that a teacher will not be successful in
applying the knowledge and skills practiced and learned in teacher education programs unless that teacher is helped to develop self knowledge and then to integrate this knowledge with reflective thinking as he or she undertakes the tasks of teaching. The illustration in figure 9 of the teaching act emphasizes how knowledge of self and higher level thinking skills contribute to performance in the teaching role. Given this conceptualization of the teacher as a self knowledgeable, reflective individual, it becomes appropriate to discuss instructional strategies for use in teacher education which can contribute to the future teacher's growth in self knowledge and in thinking skills. In this section, research and theory about the writing process will be reviewed in an effort to clarify how and why writing as a learning tool can serve as an effective instructional strategy, one which does help to foster self reflection and integrative thinking.

It should be noted that writing assignments of all sorts are often employed in all kinds of teacher education programs. Future teachers typically take notes on assigned texts, write reports on issues pertaining to education, review current research in the field, and write essay tests. However, such writing assignments are usually given so that the teacher educator can assess the amount of information which the future teacher has amassed. Even when the future teacher plans a unit, complete with written lesson plans, description of students, and methods of evaluation, or when the future teachers creates a test as part of a methods class, the teacher educator typically uses these products to assess the future teacher's progress and bases course grades upon the completeness
of such efforts. Thus it becomes easy for the future teacher to concentrate on earning a particular grade rather than on developing a personal, integrated understanding of the concepts and issues important to a particular assignment or to the course as a whole.

The theorists and researchers, teachers and teacher educators cited in sections one and two call for instructional strategies which will foster reflective thinking and the development of personal meaning. When writing is viewed as a learning tool rather than as a means of arriving at a finished product, it can, as will be discussed in this section, enhance synthesis and analysis as well as the development of self knowledge. Writing regarded in this way, as autobiographical, as record keeping, as memory probing, as a means for interacting with material in short, intense and freely flowing pieces, is a means for enhancing and elaborating upon insights generated through discussion, reading of texts, role playing, simulations, micro teaching, game playing, or lesson and unit planning. In this section an overview of the uses of writing as an instructional strategy will be presented. In the following section, a conceptual framework integrating the information from this chapter and the preceding one will be presented in order to provide teacher educators with detailed guidance for creating and using writing to learn strategies in teacher education as one possible, easily utilized, method for fostering the self knowledge and integrative thinking perceived to be lacking in teacher education programs.

A. Propositions Abstracted from Research and Theory on Writing as
A Means to Promote Knowing and Growing.

Berthoff (1981) cites Alfred North Whitehead, who states that the way a modern university should function in preparing students for an intellectual career "is by prompting the imaginative considerations of the various general principles underlying that career. Its students thus pass into their period of technical apprenticeship with the imaginations already practiced in connecting details with general principles" (p. 133). William James, also cited by Berthoff (1981), expresses a similar point of view:

Man is too complex a being for light to be thrown on his real efficiency by measuring any one mental faculty taken apart from its consensus in the working whole. Such an exercise as this, dealing with incoherent and insipid objects, with no logical connection with each other, or practical significance outside of the "test," is an exercise the like of which in real life we are hardly ever called upon to perform. In real life, our memory is always used in the service of some interests. We remember things which we care for or which are associated with the things we care for (p. 131).

The use of reflective writing as a central pedagogical strategy in teacher education courses would help in creating a balance between action and reflection. As Abbs (1976) states, teacher education is concerned in part with . . . the expression and clarification of individual
experience. . . . How better to explore the infinite web of connections which draws self and world together in one evolving gestalt than through the art of autobiography in which the student of education will review his past and trace the growth of his experiences through lived time and felt relationships (p. 134).

Berthoff (1981) also comments on the need to relate theory to practice and to relate the self to what is known or to be known. She states that

. . . theory is not the antithesis of practice and, in fact, can only serve an authentic purpose if it is continually brought into relationship with practice so that each can inform the other. . . . Without the perspective that theory provides, there is no way of maintaining a genuinely critical attitude towards assignments and courses. Without theory, practice can become cut and dried, which is just the way many people want it (p. 3).

In The Making of Meaning, Berthoff discusses writing as a way to connect theory with practice, self with content.

Writing to learn is viewed in this study as having two of the four meanings Moffett (1979) articulated: a) crafting, or the fashioning of lexical, syntactic and theoretical units of discourse into meaningful patterns, and b) authoring, or elaborating on inner speech, making written discourse for a specific purpose and a particular audience. Freedman and Pringle (1980) further define writing as a learning tool:

. . . . writing is regarded as a continuous, coordinated
performance and a process of immense perceptual, linguistic, and cognitive complexity. In this reinvented rhetoric, writing process will be seen as a creative process in which meanings are made through the active and continual involvement of the writer with the unfolding text (p.3).

Emig (1982) states that the field of writing as an area of study is devolving from tacit traditions in philosophy, as in the work of Dewey, or Langer, from psychology, as in the work of Luria, Kelley, Piaget, and Vygotsky, in literature and reading theory, as in the work of Rosenblatt, F. Smith, or F. and Y. Goodman, in science, as from Kuhn and Polanyi, and in neural science, as in the work of Eccols, Epstein, Milner, or Young. All of these researchers and theorists, state Emig, share a belief "in the learner as an active construer of meaning; their sense of learning as a transaction between knower (subjective perceiver) and known (objective reality); and their commitment to a developmental view of experience and education (p. 2024). In this tradition, Berthoff (1981) states that writing can be understood as a "nonlinear, dialectical process in which the writer continually circles back, reviewing and rewriting" and making meaning in the process (p. 3).

The following excerpt from "The Idea of Order at Key West" by Wallace Stevens (1973) describes the relationship between the act of composing and the creation of meaning on which this conceptual framework rests. It may be considered as an epigram for all of this section in that the propositions to follow concern the ability of a writer to create his or her own meaning through engaging in the writing process:
... there never was a world for her except the world she sang, and singing, made (p. 408).

1. Using writing as an instructional strategy is consistent with learning theory and with what is known about the process of learning; that is, writing provides for such known aspects of the effective learning process as active engagement in the learning, effective repetition of and practice with content, practice in varied contexts for transfer, provision of expression of conflicts and frustrations, development of an organizational pattern for the learning, provision of feedback, or the encouragement of divergent and convergent thinking.

2. Participation in reflective writing enhances the development of self awareness.

3. Participation in the writing process can facilitate thought, especially aiding in analysis and synthesis, and the integration of information into a unified whole.

4. Writing captures thought and feeling for future reflection.

5. Writing is a valuable strategy for problem solving.

6. Writing can have certain therapeutic psychological
benefits.

7. Informal writing activities, such as keeping a log or journal, can be a valuable instructional strategy for students in teacher preparation programs.

Olsen (1977) writes,

The bias of written language toward providing definitions, making all assumptions and premises explicit, and observing the formal rules of logic produces an instrument of considerable power for building an abstract and coherent theory of reality (p. 278).

Perl (1980), studying beginning writers, found that the idea or sensation which triggers writing is only a starting point. "It is important to note that what is there implicitly, without words, is not equivalent to what finally emerges. In the process of writing, we begin with what is inchoate and end with something that is intangible . . . . In writing, the meaning is crafted and constructed. It involves us in a process of coming into being" (pp. 364-367.) Perhaps Dixon (1967), one of the first researchers in the field of writing as learning, expresses best the rich potential if involving future teachers in writing activities designed to help them create meaning for themselves:

... it often appears that the demand for intellectual rigor is so interpreted that it obscures rather than illuminates the process of using language to gain insight into experiences at large. Our first concern, therefore, is that
teachers. . . at all levels should have opportunities to enjoy and refresh themselves in their subject, using language in operation for all its central purposes. . . . Teachers without this experience - who never think of writing a poem, flinch at the idea of acting, and barely enter into discussion of the profounder human issues in every day experience - are themselves deprived and are likely, in turn, to limit the experience of their pupils. On the other hand, we are agreed that, just because language is so vital and pervading a concerns, mature men and women can surprise themselves by the imaginative power they suddenly realize they possess given the right opportunity (p. 107).

IV. CONCEPTUALIZING A FRAMEWORK FOR USING WRITING AS A LEARNING TOOL IN TEACHER EDUCATION

A. Developing Integrating Propositions as Part of the Conceptual Framework for Using Writing as a Learning Tool in Teacher Education

Thus far, the propositions abstracted are Sensitizing Concepts, defined by Griffiths (1964) as those identifying specific phenomena observed in research. According to Griffith, the next step in the development of a theory or conceptual framework involves the articulating of Integrating Concepts, which synthesize Sensitizing Concepts to provide a higher level of conceptualization of the material under consideration. The illustration of the teaching act presented in figure 9 is one such Integrating Concept,
and is one key element of the total conceptual framework develop
in this section and illustrated in figure 10. The other key
elements of the total conceptual framework are developed throughout
this section. They are presented as integrating propositions for
creating writing to learn assignments appropriate for use in
teacher education, as a description of the kind of environment most
likely to be conducive to the effective use of writing to learn,
and a the implications of all of this material for the teacher
educator's responsibilities in responding to such writing. Goodlad
(1966) and Goodlad and Richter (1966) state that a conceptual
framework should answer questions relevant to the planning of an
instructional program and should bridge the gap between theory, at
whatever level of development, and practice. Thus the concluding
portion of this section presents several illustrative writing to
learn assignments and a discussion of how the conceptual framework
presented guided their creation.

I devised the following procedure for developing integrating
propositions about the kinds of writing to learn assignments
appropriate for use in teacher education. The procedure was
developed in order to integrate the propositions drawn from the
various cognate areas presented in the second section with those
of the third section. First, I created a chart on which all of the
propositions abstracted and explained thus far in the study were
listed both vertically and horizontally across the page in the same
order as they were presented in the preceding sections of the
study. Lines were drawn both down and across the page, creating
all the possible cells resulting from matching each proposition to
any other proposition developed through the investigation. Then I read down each column, putting checks in boxes in which there appeared to be a connection between the proposition listed at the top of the chart and that given on their vertical axis. I reviewed the explanation for each proposition as the decision was made to place the check mark. It is acknowledged that my perceptions and biases might have affected the decision to place a check in the cell, and it is also acknowledge that there is no way to prove, empirically, that the relationships I charted are the only possible relationships to be derived. However, I did fill in the chart on different days with the same results, and had an independent reader do the same; our results tallied. And, while it is true that the propositions derived from this process might vary if another research utilized the same process, the process itself would remain the same, and the place of the propositions so derived in the total conceptual framework would also remain constant.

Then I placed the chart out of sight for several weeks to create some distance from it. Next, I studied the chart, making observations about clusters of checks. These observations were then formulated into the integrating propositions presented below. These integrating propositions, together with the conceptualization of the teaching act, form the two major elements of the total conceptual framework for using writing as a learning tool in teacher education.

1. Assignments should be structured so as to require future teachers to integrate their thinking about the tasks,
skills, and knowledge bases indicated in figure 9.

2. Assignments should be structured to provide for exploration of personal values and roles as they relate to societal goals and values.

3. Assignments should be structured to encourage the relationship of the knower to the known, or the "to be known."

4. Assignments should be structured to provide opportunities for the writer to play across the entire ranges of discourse.

5. Writing assignments should be structured to encourage future teachers to clarify their values.

6. Assignments should be structured to encourage the writer to reflect on what he or she has written and experienced in the past in order to consider how past decisions contribute to his or her definition of self.

7. Assignments should be structured so as to direct the writer to explore his or her individual past and present for implications a to the values, motives, and assumptions upon which he or she operates and their influence upon the professional choices he or she makes.
8. Writing assignments should be structured to allow for options and alternative responses by future teachers.

9. Assignments should be structured so that at times the writer steps into the shoes of another person in order to understand that person's frame of reference, motives, fears, and values.

10. Assignments should be structured to provide practice in higher level thinking skills.

11. The selected strategies for completing a given writing activity should be chosen to reflect the major objective for that assignment, and should vary from assignment to assignment.

Several basic assumptions underlie the use of writing as a learning tool as a central instructional strategy in teacher education. The beliefs which are articulated below were also synthesized from the propositions discussed in sections two and three. They are included here to ground the future discussion both of conditions under which writing to learn might most effectively occur and of previous discussion of principles for creating journal assignments designed to foster the accomplishment of the objectives of increasing self knowledge and of integrating self with other kinds of knowledge in the teacher education program. The teacher
educator who chooses to use writing as a learning tool believes that its use

1. Provides for intellectual growth through the practice of reflective thinking and conceptualizing skills.

2. Helps to develop the full potential humanness of individuals.

3. Develops more fully self-actualizing individuals.

4. Is based on a holistic approach to learning, one which recognizes that how an individual feels about something, the strength of that feeling, and the order of importance which he or she gives it are tightly interwoven to the educational process and progress of the individual.

5. Assumes that learning involves gaining new information or experiences and the discovery by the individual of the personal meaning of his information or experience for himself.

6. Recognizes that future teachers have had many years of experience as students which contribute to their perceptions of teaching and of themselves as teachers.

7. Is based on a belief that individuals will do what seems
important to them, so that it is important for them to uncover those values upon which they will operate.

8. Embodies a spirit of acceptance, especially for individual differences of perception and rate of growth, of trust, of free communication, and of experimentation.

The teacher educator who chooses to use writing as a learning tool will be willing to participate in certain activities and will operate under certain assumptions as well. These actions are based on a belief in the individual and his or her capacity to develop intellectually and emotionally. The teacher educator using writing as a learning tool

1. Fosters interaction which enhances individuality and integration.

2. Accepts individuality and provides alternative options.

3. Engages in genuine dialogic encounters.

4. Treats future teachers in a manner which encourages growth both intellectual and emotional and assumes that future teachers will treat their own future students in the same way.

5. Helps future teachers to generate their own insights into
the problems and issues of teaching and their own sense of personal purpose.

6. Assumes constant inquiry is necessary for growth and structures assignments to foster inquiry.

7. Directs attention toward the reality of the social system and of the role of the teacher in it and in the larger community.

8. Helps future teachers move from defensiveness toward openness.

B. A Conceptual Framework for Using Writing as a Learning Tool in Teacher Education and a Procedure for Utilizing the Framework to Create Appropriate Writing Assignments

An illustration of the teaching act was developed and presented in section two. This figure, as an Integrating Concept, becomes one part of the total conceptual framework for using writing as a learning tool in teacher education. The first portion of this section included a discussion of other Integrating Propositions for using reflective writing as a pedagogical tool in teacher education. This series of propositions becomes another part of the total conceptual framework. Also, the last portion of this section included a discussion of the kind of environment in which reflective writing to learn might be most effective in
accomplishing the tasks of furthering self knowledge and the integration of that knowledge with other aspects of the teacher education curriculum. The need for self knowledge and its integration were discussed in the second section, and the ability of participating in the writing process for fostering such knowledge was discussed in section three. This portion of section four presents the framework for using reflective writing in preparing future teachers. Also, I have included two such writing assignment sequences developed from the framework.

The first two portions of the framework, presented in figure 10 are the conceptualization of the teaching act and the integrating propositions articulated earlier in this section. Tyler's (1964) four questions concerning instruction and curriculum development can be used to guide the process of developing and then using reflective writing assignments. Tyler's questions are appropriate for using in the conceptual framework because they relate to the illustration of teaching in figure 9. All of the questions have to do with the important teacher task of planning for and carrying out instruction, a task which requires synthesis of information from all of the knowledge bases. And, answering Tyler's questions involves the use of such higher level thinking skills as evaluating and assessing, analyzing, empathizing, or communication, in an effort to develop learning activities which suit the learner appropriately and which fit into the total learning sequence logically. These questions may be paraphrased as follows:
1. What are the objectives of the teacher education program?

2. What experiences are most likely to enhance the probability of achieving those objectives?

3. How can these experiences be organized most effectively?

4. How can the effectiveness of the experiences and total program be evaluated?

Tyler's questions become another element of the total conceptual framework. The first two questions will be directly related to the development of appropriate writing assignments. The third helps determine where and how the writing might be placed in the context of the rest of the teacher education curriculum, as well as suggesting an internal structure for such assignments, and the evaluation of such assignments produced by future teachers as well as of the entire concept of using writing as a learning tool would be guided by answers to the fourth question.

The conceptual framework for using writing as a learning tool, composed of the various elements developed and discussed throughout this study, is presented in figure 10. It illustrates graphically how the various Integrating Concepts interrelate to guide both the creation and use of reflective, writing to learn activities appropriate in teacher education. The first cycle includes the conceptualization of teaching and of writing to learn previously discussed. The second cycle, including pre-writing talk and post-writing discussion, is included because of those propositions in
CONCEPTUAL FRAMEWORK FOR USING JOURNAL WRITING AS AN INSTRUCTIONAL STRATEGY IN TEACHER EDUCATION

CYCLE ONE - CREATION

Input
A. Conceptualization of Teaching, figure 15

Process
D. Tyler's 4 C. Assignments

Output
E. Appropriate for Use in Teacher Education

A. Propositions Related to the Conceptualization of Journal Writing Assignments

Environment of Openness Fostering Trust and Acceptance Conducive to Participation in Journal Writing

CONCEPTUAL FRAMEWORK FOR USING JOURNAL WRITING AS AN INSTRUCTIONAL STRATEGY IN TEACHER EDUCATION

CYCLE TWO - USE

Input
D. Pre-writing

Process
E. Response to Talk, Reading Assignment by Future Teachers

Output
F. Peer Group Discussion: Or Response by Teacher and Future Teachers to Writing Generated

D. Teacher

E. Consideration of Completes Assignment Process and Revision

FIGURE 10

Evaluation and Feedback
section two, such as propositions 5 and 6, section C, and proposition 5, section A, which are concerned with the need for interaction among individuals if growth is to take place. The need for response and for an appropriate environment were discussed in the first portion of this section. The key elements of the total framework, however, are the two primary input elements. The focus of this study has been to develop a conceptualization of the teaching act and of writing as an instructional strategy in teacher education, and the rest of the conceptual framework could not exist without the substance provided by these two Integrating Concepts. The steps to follow in using this conceptual framework to create and use writing to learn activities are

1. Determine goals and objectives for the total preparatory program.

2. Decide about the effectiveness of particular kinds of writing assignments for achieving specific goals and purposes by referring to the series of integrating propositions in figure 9.

3. Place writing to learn activities in the sequence of other learning activities and in the context of the total program by considering Tyler's questions.

4. Develop goals and objectives for each writing to learn assignment and devise appropriate writing activities by
using the entire creation cycle of the conceptual framework.

5. Provide for peer and/or instructor feedback based on the use cycle of the conceptual framework.

6. Evaluate the writing to learn assignments on the basis of the degree to which the goals and objectives are met, and channel the information back into the creation cycle of the conceptual framework as indicated in the illustration.

Two writing to learn assignments and a scenario for their use are included below. The purpose of presenting these assignments is to demonstrate the applicability of the conceptual framework for developing and using writing to learn strategies. In the first example, a detailed discussion of the steps in the development of the assignment is included. The purpose of the discussion is to clarify the procedure for implementing the conceptual framework for using writing to learn in teacher education. In order to develop other assignments, the teacher educator would need to complete the same series of steps as that described in the first example.
Reflective Writing Sequence Number 1 - Broadening Understanding of the term "Evaluation" and Taking a Stance on Evaluation Procedures

One of the issues which confronts a teacher of any sort as soon as he/she asks a student to turn in a piece of work is the issue of how to respond to that student's performance. Teachers in training need to have some definite ideas about the procedures they will use for responding to student work and a clear understanding of the differences among such concepts as response, assessment and diagnosis, or both formative and summative evaluation. Without such understanding, future teachers might easily send mixed messages to their students about the nature of the response offered to a piece of student work and about the purpose and criteria used in offering that response. However, the concept of evaluation, conceived in such broad terms, is a complex one and is difficult to discuss objectively. Future teachers might first be encouraged to start from their personal knowledge base and consider the associations they make when they hear the term "evaluation." They might explore their past experiences with evaluation of all sorts, from simple teacher response to their efforts to rigidly graded papers or tests. They could then read texts which discuss the differences among formative and summative evaluation, diagnostic evaluation, criterion and norm referenced tests, holistic evaluation, peer feedback, criterion and reader based response, or other related concepts. After searching their own memories, sharing the experiences of others, reviewing knowledge from courses such as educational psychology and information from texts, future teachers might be asked to articulate a clearly worded statement on their policies for
monitoring and evaluating student progress which they can then deliver to students or parents.

Before reading the sections in the assigned texts on evaluation, students might be directed to complete a reflective monologue in their journals. The teacher could give directions for this assignment similar to these:

Focus as intently as possible on the word "evaluation." What other terms come to mind? How is it alike or different from such terms as "witness," "observe," "check," "monitor," "diagnose," "grade," or "respond?" Now close your eyes and think about the best experience you ever had in receiving response to a piece of work. How old were you? What was the situation? Were you expecting any response? Were you surprised at the response you did receive? Can you recall details of where you were, how it looked and smelled, sounded, of what you were wearing, what the teacher - or fellow student, principle, parent - said? How did your peers react? Did they know what kind of response you had received? Jot down your memories in fast note form as they come to you, but you may stop writing if the notetaking interferes with your thinking. If your mind tries to wander off of the subject, bring it back on track. But, give yourself the chance to be sure that your mind is truly wandering, and is not merely providing a welcome new viewpoint or aspect of the subject. Now, shift gears. Go through the same process for your most negative experience with receiving feedback on your efforts. In what form did it come? What made the experience negative? What was the purpose of the response? Can you think of alternative strategies which might have made the experience a more positive one? And now, consider other situations. When do you want response? Have you ever wanted or needed it and not received it? Do you ever receive it when it does more harm than good? Collect as many associations and feelings, thoughts and impressions as possible.

The instructor will have completed the assignments first, and thus can coach the future teachers with specific questions such as "How old were you?" - questions the instructor asked as he or she tried to recall specific instances. In this case, since the idea is to begin with personal experience, little pre-writing talk or discussion may be necessary; the initial reflective monologue will be used as a basis for continued writing, reading, and discussing.
However, the instructor may decide to share his or her experience in order to indicate good faith and to provide a model for the students to follow.

Students would now be directed to look over their memories and to attempt to generalize about the positive and negative aspects of their experiences, jotting these down in their journals. The instructor could coach this process, or might write out questions such as:

What is the most important difference in the experiences you have described? Is it the form the response is given in? Is it the attitude of the person giving the feedback? Is it due to a difference in procedure used to arrive at the response or in the purpose of the feedback?

After completing the reflection on their monologues, the instructor would ask students to share their ideas and insights either in small groups or as a class. The instructor would then seek to help the class generalize from their collective experience about the varieties of purposes and of strategies which can be associated with the concept of evaluation, helping students to begin to recognize that assigning a letter or number grade to a student's work is only one possible option for providing response and feedback to that student. The future teachers might begin to formulate a list of questions associated with the whole concept of evaluation which they would seek to answer as they read, discuss, and write further.

The assignment has been derived from the illustration of teaching in figure 10 in that evaluation is one of the tasks of teaching and the assignment begins with a focus on the individual student's experience (self knowledge) which contributes to attitudes about the evaluation process. Integrating propositions
S, 5, and 7 contributed to the development of this first section of the writing activity in that the researcher sought to ask questions which would guide the relationship of the knower to the known, which would help future teachers clarify their values on this topic, and which would encourage him to understand how their past experience influences their beliefs. The following paragraph describes the movement toward a formal policy statement on evaluation. The skills of synthesis are stressed, as is indicated should be done in integrating proposition 10, and options are provided, as integrating proposition 9 suggests. The sharing of the writing produced is indicated in the conceptual framework, figure 10, in that the sharing provides the feedback which the writers need in order to engage in further reflection.

The writing, reflection, and discussion would serve as a "bridge" for the students' reading of specific, assigned texts on the issues of evaluation, serving to guide their reading as they attempt to synthesize their impressions with what they read. Then, to continue the process of synthesis, of integrating personal experience with the ideas and options presented in the texts, the future teachers might "cube" on the term "evaluation." Prior to cubing individually, the teacher educator would lead a large group cubing exercise as a way to increase familiarity with the process. If it has been a while since a cubing exercise has been used, the instructor would review the process:

Remember, cubing is a process designed to help you examine an object or concept from a variety of perspectives in quick succession. In this instance, you will be cubing on "evaluation," and remember that you are to switch your purpose on the spur of the moment. It is the contrasts which prove fruitful in helping you to determine what you believe about a topic by bringing your knowledge and experience of that topic out in the open. For three to five minutes, describe, as objectively as possible, the concept. Then, in mid-sentence if need be,
switch to a comparison of it with other like objects or concepts, writing freely for another three to five minutes. Do not pick up your pen or pencil; if you run out of ideas, repeat your last word or phrase and trust your mind to find a new avenue of thought. Continue the sequence of the writing, moving through association, application, analysis, and argument for or against the idea: remember to consider the concept in its broadest sense and to relate it to what you know about students, schools, and your subject area.

The instructor would ask the writers to look over what they have written, noting new ideas, intriguing thoughts, or interesting perspectives which have emerged through the writing. Again, the instructor can coach the process by asking the future teachers such questions as, "Have you broadened your understanding of the concept of evaluation?" "How will you choose when to assign grades?" "What alternative do you have?" "What purpose should evaluation serve?"

Again, class discussion will follow, and the instructor and students attempt to answer the questions previously generated, attempt to synthesize the readings and personal experience, and attempt to deal, as well, with the realities of school policy and parent and student expectations. After the initial memory monologue, the reading of texts, class discussion, the cubing, and more discussion, each future teacher will have a large number of ideas about various definitions of evaluation out in the open, where they can be seen and examined more closely. At this point, the instructor might direct the future teachers to begin to move toward a more formal statement of their beliefs. The instructor would generate, with students, a list of options involving real contexts and real audiences to whom future teachers might have to address themselves on the topic of response and formal evaluation. For instance, teachers might send home a policy statement outlining their evaluation policies to both parents and students at the
beginning of the year. They might write a statement for inclusion in a parent-student handbook. They might have to write a letter to a parent who has complained about this policy, or they might have to send a memo to their department chair or principal about these policies, just for the record. Students in the education course would write such a piece and then bring their statement to class the following day. At this point, partner dialogues might be held. Students break into pairs. One student reads his or her piece while the other listens. The listener then talks for one to two minutes, summarizing and pointing out the main points as he or she understood them while the writer merely listens or takes notes. This allows the writer to know the degree to which clear communication of ideas and policies has occurred. Then, the partners switch roles, and they repeat the process.

When the instructor later responds to these entries, he or she will also summarize and point out major ideas the writer seems to have. In addition, the instructor can ask "what if..." questions based on more extensive experience with students, parents, and schools. The instructor might be able to relate an incident in which he or she used a tactic similar to one being described by the writer, indicating the outcome, and asking the writer to reflect on this. Or the instructor might direct the writer to sections of texts which deal with concerns not adequately addressed in the writing, or might ask questions about how the policy as stated fits in with the future teacher's overall educational philosophy. The hope is that when the future teachers enter the classroom for the first time, they will at least be more aware of kinds and purposes of response, and they will have articulated some guidelines for their own use. These may change
as the future teacher learns about his students and specific school situation, but at least he will have a starting point from which to proceed in deciding when to correct, when to grade, when to mirror what a student has said or written, when to receive a piece of student work without making a response.

The steps in the development of this sequence of assignments were determined by answers to Tyler's four questions. Certain goals and objectives for a preparation program for future teachers were established. These were based on the parameters of the teaching act. An optimum teacher education program and series of assignments would include objectives related to the various relationships indicated in figure 9 or to each cell of the three dimensional model of figure 8.

Whether or not to use writing to learn assignments would be determined by the instructor on the basis of the usefulness of the technique in teaching specific skills or knowledge. Using writing to learn activities is one method of teaching higher level thinking skills, of fostering integration of information from a variety of sources, and for encouraging the taking of a stance in a personal way on an issue. Moving from reflective monologue through discussion, to cubing, and more discussion, and then on to more formalized piece of writing in which a policy is clearly stated encourages skills and growth of insight on the issue of evaluation, one with which all teachers need to deal. Discussion and analysis of the ideas generated through the writing would provide feedback to the trainee concerning his thoughts and their implications for action. Possible alternatives suggested by fellow students at various stages of the process would provide a basis for further reflection and knowledge,
as would the feedback of the instructor. The instructor would encourage openness on the part of the trainees to sources such as fellow students and/or the instructor, written materials, films, tapes, or observations of real classrooms. Development of an atmosphere that is conducive to this kind of openness would require time, supportive and accepting actions by the instructor, and considerable effort by all those involved. The strategy as described takes into account the ideas of learning theorists that learning occurs best if opportunities for individualization are offered and if the learners can be actively engaged in the learning process. By starting with recollection of personal experience, the instructor lowers stress and anxiety and individualizes since everyone has access to such memories. Using the writing exercises, the future teachers practice and apply new skill and knowledge, which they integrate with prior knowledge and personal experience and biases, before having to apply them in actual teaching situations. This could help reduce anxiety and stress often associated with trying new approaches.

The third step in the development and utilization of reflective, writing to learn activities involves sequence. Placement of the various activities, as well as choice of specific content and strategy, should be done by the instructor on the basis of the goals which he or she hopes to accomplish through their utilization. At least two patterns could be used. They are: 1) input-writing to learn-more input; or 2) writing to learn-input-writing to learn activities-more input. (Input would be learning activities, discussions, reading, lectures, and so on.) A major difference between the two is that in the second pattern writing to learn activities would be used to determine initial instruction
input. The final three steps of pattern two are the same as pattern one. Instructional input, perhaps theory and or principles of evaluation, psychology, sociology, philosophy, teaching methods, and so on, would be provided. A student would then attempt to use this input in completing a journal assignment. Need for additional instructional input or repetition of previous material could be determined through observation of the trainee. This last step would provide the instructor with one type of evaluative data about the effectiveness of a simulated experience.

The teacher educator would be responsible for deciding on the goals and objectives for a particular lesson, in this case, on the evaluation process, and then for developing writing to learn activities consistent with those goals and objectives. In the reflective writing sequence just discussed, emphasis was placed on making decisions about evaluation, but individual planning and analysis as well as consideration of the effect upon other aspects of the teaching act of evaluation would also be considered. Goals which are associated with reflective writing assignment one include practice in the following:

1. analyzing the rationale and purpose of evaluation
2. analyzing personally experienced approaches to evaluation as one basis for determination of effects of specific evaluation procedures
3. empathizing with future students through searching past experiences of evaluation and its implementation
4. searching through texts, other materials, and the experiences of fellow students for alternative approaches to evaluation and for insight into
possible benefits or negative effects

5. planning and designing an evaluation policy
   through analysis and synthesis of all available
   information on evaluation

6. coordinating an evaluation policy with the
   individual's educational philosophy

7. communicating an evaluation policy to a selected
   audience.

The following student behaviors might be emphasized during the
accomplishment of these goals:

1. integrating knowledge of self, of social and
   psychological foundations, and of specific
   content area in formulating an evaluation
   policy

2. demonstrating respect and confidence in future
   students

3. demonstrating respect for fellow trainees and
   openness to their perspectives

4. communicating clearly the procedure, rationale,
   and benefits of a particular policy to the
   selected audience

5. distinguishing between formative and summative
   evaluation and emphasizing process

6. basing designs upon knowledge of pupil needs,
   interests, and abilities and upon principles
   of learning

7. cooperatively working to investigate alternatives.

These goals and behaviors derive from the illustration of the
teaching act which includes evaluation and the skills of analysis
and communication, and they are also consistent, as has been stated with integrating propositions 3, 5, 7, 9, and 10, presented in this chapter.

Provision for peer and/or instructor feedback is very important in creating and using writing to learn assignments as an instructional strategy in teach education. Feedback would be provided as individual trainees shared their experiences and collectively generated implications for future actions based on these memories. Group discussion of the insights generated after the cubing exercise would provide a chance for reactions and questions by fellow trainees and the instructor to surface, and the individuals would have to incorporate this additional information into their thinking before writing the policy statement. The pair dialogue session allows the writers to gain some degree of awareness of how well they have communicated their ideas, and instructor questions and responses would provide additional information for further reflection, reading, and thinking. Writers might also be encouraged to examine their writing after a few days have passed and ask questions of themselves, thus encouraging the development of the skill of self evaluation.

Evaluation of the writing to learn exercise itself is an important step in the process of using reflective writing as an instructional strategy. After such an exercise has been tried, participants and observers should evaluate it and suggest changes in it which might improve its effectiveness. This step should be repeated after each time the exercise is used. The major criteria for this evaluation is the degree to which the goals and objectives were met. Delineation of the details of the evaluation process is beyond the scope of this study, but it should be noted that
instructors should continually modify assignments themselves. In short, instructors follow integrating propositions 7 and 9, modifying their behavior as a result of reflection and feedback from others.

Reflective Writing Assignment Sequence Example Number Two — Interacting with Read Material to Enhance Understanding of Concepts Presented and the Ability to Apply them to Classroom Situations

This writing to learn assignment is designed to encourage future teachers to read with greater understanding and to apply what is read to the tasks of teaching. This specific assignment assumes the material to be read deals with unit and daily planning, but with minor adjustments, such an assignment could be applied to texts on topics as diverse as classroom management or working with others in professional education organizations.

Prior to sending the future teachers off to read the chapters in their texts assigned for the following class, the instructor would present the following instructions:

I want you to read tonight’s chapters keeping in mind that you will be writing about the material from a personal perspective but for an audience other than yourself. (The instructor might give a brief synopsis of the text in order to establish some expectations for the readers at this point, so that they will more easily follow the rest of the instructions.) After you finish reading, do a quick descriptive free-write on the material. Remember you need not capture the material in every detail. Its purpose is to deal with the material in the manner of an Impressionist painter capturing a scene. Then, go get a snack, take a walk, or find another means of taking a break from the material. Return to your entry and look it over. Add any reflective comments or additional information you recall and which seems important.

Now, select one of the following options. Whichever one you choose, try to write it freely, without paying a great deal of attention to spelling and mechanics.
1. Write a letter to the author. Summarize what you feel to be his or her main points. Tell him or her what you found valuable in the text and try to tell him or her how you will apply what he or she has to say to the task of planning for a unit you know you may have to teach during student teaching for specific students. If you do not know this, recall a unit you experienced in high school. Then, address questions to the author. What did he or she appear to make too easy? Does what he or she says appear to correlate with what you know about real schools and real students and real curriculum guides? Will the approach work for all students? Are his or her ideas too complicated to follow? Argue with the author. Present your side of the story as you ask questions of him or her. You might compare what he or she says with what you have learned from other sources; ask him or her about discrepancies. Now, find some way to close the letter on a more positive note, and sign your name. Make sure you try to respect his efforts throughout.

2. Or, write a letter to a colleague who teaches in another town. Your friend is a nice person who cares about students but who is fairly set in her ways. She sticks to the lecture method and rarely changes her notes from year to year. She has written to you to say that her students (imagine the students she has) seem more bored than usual and that she doesn't seem to be accomplishing anything. They failed miserably on the last quiz. Do you have any advice given that you are still at the university where you learn all kinds of idealistic approaches? Write back to her with the advice of the author. Tell her how you will be applying his suggestions to your own planning. Imagine the effects, and tell her these. Also, point out any of the text which you question and tell her why. Give your own perceptions of these issues. Imagine for yourself parts of the letter she has sent you describing her students and what she plans to teach, and try to apply the ideas of the text to her situation. Bring the letter to a close and sign your name.

3. A third option might be to write a review of the text for a professional publication. State the name of the journal and its intended audience. Write the review following the format you have seen used in this journal. Summarize the main points, point to valuable sections of the text, critique those sections which leave something to be desired, perhaps by comparing and contrasting with other material you are familiar with. Try to imagine criticisms teachers might have of the text and
address these. If you have philosophical beliefs which bias your review, do not hesitate to confess these.

When the class meets again, the instructor could use these entries as a basis for beginning discussion of the text and the concepts contained within it. The instructor might read his or her own response, or might ask the intending teachers to summarize their writings. The class could generalize about what the text has to offer and perceived problems within it. Then, to encourage further consideration of the text and issue, the trainees might be asked to pass their journal entries to the person on the left. Their job now is to read the entry in front of them and to respond to it as if they were the person to whom that entry is addressed. The writers are to do their best to think as the responder would in an effort to increase their understanding of the text and the author’s message and its applicability. The instructor would then ask the trainees to reflect on what happened as they attempted to write from this new perspective. Were any additional insights generated? Was it possible to address the concerns indicated? What still needs to be clarified? What other resources could be tapped in attempting to answer queries and concerns?

The goals of this writing to learn sequence include

1. comprehending and analyzing an author’s perspective on a given topic
2. coordinating that information with other information about teachers, students, and schools, as well as of self
3. abstracting from the material those parts
which can be integrated into the individual's behavior given his or her philosophy

4. evaluating the material based on observations, experiences, and other knowledge

5. planning for instruction based on material presented

6. communicating the information to someone else.

The following student behaviors might be emphasized during the accomplishment of those goals:

1. demonstrating respect for the chosen audience

2. communicating clearly the evaluation of the material and the reason for that assessment

3. distinguishing between information consistent with individual philosophy and that which is not applicable given understanding of the self and the individual's beliefs

4. basing decisions upon knowledge of pupils' needs, interests, abilities and principles of learning

5. empathizing with the chosen audience through attempting to respond to an entry as the person addressed might do

6. being open to new material and to the insights of others.

Again, the researcher drew on the illustration of teaching in figure 9 which is one part of the total conceptual framework illustrated in figure 10 to develop this assignment which includes the skills of communicating, planning, abstracting, and empathizing while integrating the knowledge areas of knowledge of self, of
particular students, and of specific content area. The sequence of activities is consistent with integrating propositions 1, 2, 3, 8, and 9 which form the second major element of the total conceptual framework.

In this part of section four, the framework for developing and using writing to learn assignments was presented. A conceptualization of the teaching act, integrating proposition about creating journal assignments, and Tyler's four questions about curriculum and instruction were the major components of the framework. Discussion of the kind of appropriate environment for using writing as a learning tool most effectively was also presented, as well as some implications for responding to the writing generated. Two sample assignments were developed to demonstrate the applicability of the framework. In the next and final section, a summary of the study and implications for future research will be discussed.
SECTION FIVE - SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS FOR FURTHER STUDY

This section includes a summary and a discussion of the study's contributions to the field of teacher education, as well as recommendations for further study on the use of writing to learn activities in teacher education. Part A is a synopsis of the investigation. Part B centers on the contributions of the study, and Part C includes questions which should be addressed through further research.

A - Summary

The problem considered in this study was the need to help future teachers cultivate self knowledge and the ability to integrate that knowledge with the other bases of knowledge and skills required to perform the tasks of teaching. Researchers and theorists suggest that participation in the writing act can foster self knowledge and the integration of that knowledge with other aspects of the teacher preparation program as well as the promotion of higher levels of thinking associated with effective performance as a teacher. Thus, it appeared that reflective writing might be a useful instructional strategy in teacher education. The purpose of the study was to develop a conceptual framework for using reflective writing as an instructional strategy in teacher education by drawing from what is known about the nature of teaching and about the writing process. The study also includes a description of a step by step procedure for utilizing the conceptual framework to guide the creation and use of writing to learn assignments in the context of teacher preparation programs.

Answers to the following questions were sought:
1. What can be synthesized from the literature to guide the conceptualization of the teaching act upon which to base selection of pedagogical strategies in teacher education?

2. What can be synthesized from the literature to guide the conceptualization of the use of writing as an instructional strategy upon which to base the use of writing to learn activities in teacher education?

3. What can be synthesized from the literature to guide the development of a step by step procedure for utilizing the framework for creating and using the journal in teacher education?

Theory building at the conceptual framework level rather than hypothesis testing has been the emphasis throughout this study. Goodlad (1966) cites the need for conceptual frameworks to guide theory building, research and planning. As defined by Goodlad, a carefully constructed conceptual framework identifies and reveals relationships among complex, related, and interacting phenomena. Such a framework consists of categories abstracted from the data which the framework is designed to describe and clarify.

These categories are analogous to the Integrating Concepts defined by Griffiths (1964) which synthesize Sensitizing Concepts as derived from close scrutiny of information and data available to the researcher.

A conceptual framework for using writing as a learning tool in teacher education was developed and presented in figure 10, reprinted on the following page. Accomplishing this goal entailed formulating a structure to present concepts in such a way that future researchers can gain useful insights into the phenomena of teacher education and writing as a learning strategy, and into the possibilities of using reflective writing as a pedagogical strategy in teacher education. The conceptual framework is made up of...
several parts, the key elements being a conceptualization of the act of teaching and a series of integrating propositions about the nature of writing as a learning tool as applied to teacher education. It is hoped that this conceptual framework will be utilized to bridge the gap between research, theory, and practice. Specifications of a step by step procedure for creating reflective writing assignments relevant to teacher education was undertaken in order to further reveal the relevance of the framework for practice. The conceptual framework for writing as a learning tool in teacher education as illustrated in figure 10 is intended to help organize knowledge relevant to teaching and writing so that teacher educators might guide the growth of future teachers in a new way and to provide a stimulus for further research.

In conducting this style, the steps followed were to

1. describe the needs of teachers not often addressed in teacher education programs from a survey of the literature on teacher education.

2. develop a substantive base for thinking about teaching, teacher education program, and the use of writing as an instructional strategy

3. abstract propositions from various cognate areas relevant to a discussion of teaching, teacher education, and the use of reflective writing as an instructional strategy within education preparation programs
4. develop a conceptual framework for using writing as a learning tool in teacher education.

5. describe the kind of environment and the assumptions of teacher educators appropriate to the use of writing as a learning tool in teacher education.

6. describe a procedure for utilizing the framework to create appropriate writing to learn assignments relevant to the teacher education program and discuss the creation of illustrative assignments.

7. summarize the conclusions and implications for future research of the study.

A conceptual framework (figure 10) was developed through reasoning about the consequences of propositions abstracted from knowledge in philosophy, psychology, sociology, teacher education, the theory and research on the composing process, and related fields. Relationships among complex, interrelated, interacting phenomena within the teaching act have been revealed and identified, including the knowledge bases, skills, and tasks of teaching. In the process of identifying and describing these elements, the parameters of the teaching act have been identified, so that propositions about the nature of reflective writing as an instructional strategy within the context of teacher education could be discussed. Figures 7 and 9 serve to illustrate the parameters of teaching, and the objectives of strategies and
materials for preparing future teachers should be based on that model. Preparation programs should include provisions for the development of the skills and knowledge of the future teacher to the degree necessary for him to accomplish the tasks of teaching and to function in each cell in figure 7, while figure 9 illustrates the manner in which the various elements interact with an overriding concern for the development of self knowledge and decision making skill. Instructional strategies also need to be based on consideration of the characteristics and principles of alternative modes of presentation of the material to be learned. Thus propositions about the creation and use of writing to learn assignments became a second element of the total conceptual framework.

Tyler's four questions concerning instruction and curriculum development are used as guidelines in the process of developing writing to learn assignments. Cycle One of figure 10 describes the process of creating assignments. Cycle Two indicates the way in which writing to learn assignments should be presented and responded to in order to effectively facilitate the growth of self knowledge and reflective, integrative thinking skills. In figure 10, evaluations about the entire experience of writing to learn are recycled back into the system as feedback; determination of the methodology for an empirical evaluation of the experiences of writing to learn in teacher education is beyond the scope of this study.

The definition of writing to learn, or reflective writing, as an instructional strategy in teacher education used in this study is that of a personal, interactive process requiring reflective, integrative thinking and resulting in a written record of the
individual's insights, ideas, and feelings, as well as a record of the process used in arriving at these. Through the process of writing to learn, the individual develops personal insight and self knowledge while practicing higher levels of thinking. In order to continue to grow in these areas, future teachers would share their insight and thought with others in dialogic encounters, and might use the additional insight gained as a basis for future reflection through additional writing to learn activity. An open relationship between teacher educator and future teachers, characterized by respect and acceptance should foster the kind of self exploration and reflective thinking associated using writing as a learning tool, and with the ability to perform effectively as teachers.

8 - Discussion of the Contributions of this Study

Reflective writing or writing as an instructional strategy is in a period of development. To analyze its applicability to teacher education, a background of theory or conceptual framework which can be used to postulate concepts and processes and to describe how these would look in action was required. In this investigation, an attempt has been made to use some known concepts, reframe ideas and add the writer's insight and interpretation to advance the use of reflective writing as an instructional strategy for use with future teachers. Data have been described and synthesized from many different areas and sources to describe the components that are an integral part of the conceptual framework for using writing as a learning tool in teacher education, and to describe the procedure for utilizing the framework to guide the creation and use of writing to learn assignments and their place in teacher education programs.
The conceptual framework was designed to provide an explanation of the teaching act, of the use of knowledge as an instruction strategy, and to give direction to appropriate processes and the selection and use of journal writing assignments which are appropriate for future teachers given what is known about the nature of teaching and the nature of writing. The conceptual framework offers a frame of reference to determine choices and to establish priorities, and serves as a basis for organizing and using the content of teacher education programs to foster certain skills in future teachers. One function of the framework is, then, to provide teacher educators with a guide for action and to set forth propositions which can serve as references for observations and insight. A second function in developing the framework is to encourage new ways of thinking and talking about teaching, teacher education, and instructional strategies appropriate for teacher preparation programs designed to promote the integration, reflection, and attention to the individual called for by teachers themselves. In addition, the conceptual framework should encourage new ways of thinking about the application of journal writing as an instructional strategy to other areas of study. The framework developed in this study could be modified based on the nature of other disciplines to provide guidance for the use of reflective writing as an instructional strategy in many different content areas.

A teacher education program using writing as a learning tool can develop teachers capable of continuous self renewal and characterized by flexibility of thinking and an acceptance and understanding of self. Reflective writing, or writing to learn, encourages self direction and individual responsibility for
creating meaning through individual interaction with the content to be learned. Collaboration and interaction with others also engaged in the writing to learn process is viewed as essential for the future teacher as he or she strives to develop both self knowledge and the reflective thinking skills associated with effective classroom performance. The hope is that as future teachers move toward better self understanding and the ability to integrate this knowledge with the other knowledge areas and skills associated with the tasks of teaching, they will begin to recognize how to help their future students develop in the skills of analysis, synthesis, and integration of knowledge.

In an atmosphere of openness, of trust and acceptance, individuals can learn to listen to themselves and others, to free themselves from certain restrictions, to take risks, to be congruent in thought and behavior, and to change and grow in positive ways. Using the writing to learn activities in such an environment should result in the future teacher seeking new insight, new learning, and new associations while learning to solve the problems and to address the tasks of teaching in a more effective way.

C. Recommendations for Future Research

Reflective writing as an instructional strategy in teacher education is an approach which will need further deliberation, testing, and researching in order to assess its usefulness. Research methods such as field studies, case studies, naturalistic observation, interviews, and content analysis of journals will be appropriate strategies for gathering and evaluating data about the usefulness of writing to learn in teacher education. The work of
Emig (1977), Perl (1980), and Graves (1983) in recent years offers models for qualitative research of the future which can be used to examine the writing to learn process and the changes which occur to the writer through participation in the writing process.

Further study should be undertaken to answer such questions as

1. To what extent will teacher educators be willing and able to use this conceptual framework for creating and using writing to learn assignments in the various components of teacher education programs, from course work, clinical and laboratory experiences, and student teaching or other field work?

2. For what kinds of individuals (young/old, intuitive/analytical, open/close-minded, anxious/comfortable about writing) is the use of reflective writing as an instructional strategy most functional, and to what degree will future teachers of various content areas and kinds of students find the strategy useful?

3. What forces or factors, such as team teaching approaches or time constraints, exist in teacher education which might affect the effectiveness of writing to learn as an instructional strategy?

4. What strategies and characteristics of the teacher educator in responding to writing to learn assignments and what characteristics of the environment in which the teacher education program takes place are most conducive to the effective use of writing to learn activities in teacher education?

5. To what degree does a relationship exist between the kind of environment and the assumptions upon which teacher education programs are based and the manner in which teachers organize their own classrooms and implement instruction and interaction with their own students?

6. To what degree will students taught by teachers trained in programs in which writing to learn assignments are used differ in attitude and achievement from students of teachers not so trained?

7. To what extent are certain kinds of journal writing assignments more appropriate for accomplishing certain goals than others?

8. How can the conceptual framework for using
writing to learn activities in teacher education be modified to guide the use of intensive journal writing as an instructional strategy in other professional preparation programs or across the secondary and elementary school curriculum?

As a result of presenting this study and the information gathered from research which may follow it, the researcher assumes that teacher educators will be able to use the power of reflective writing to help their students develop the skills of self reflection and integrative thinking, skills which will enable them to continue to grow and develop into the effective professionals our children deserve. This assumption has yet to be tested, but I am looking forward to doing so.
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