FACILITATING THE COGNITIVE GROWTH OF BACCALAUREATE NURSING

STUDENTS: USING WRITING STRATEGIES FOR THINKING AND

COGNITIVE DEVELOPMENT

by

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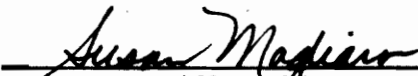Curriculum and Instruction

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(ABSTRACT)

The purpose of this study was to discover whether a nurse educator could facilitate the cognitive development of baccalaureate nursing students using writing strategies that challenged their thinking.

The literature focuses first on the model of the cognitive development of college students as Perry first delineated it (1970) and later modified it (1978; 1981), as well as on how other researchers have elaborated and extended it from a descriptive to a prescriptive model. Also, literature related to writing as a strategy to facilitate learning, thinking, and developing is investigated, and specific writing tasks used to those ends are described.

The study was carried out with two groups of junior nursing students. A study group, consisting of 29 students, participated in a semester long nursing concepts course where writing was used to stimulate cognitive

development. The control group, consisting of 16 students,
enrolled in another section of the same course, was not
provided the writing experience.

It was found that the total group (n = 45)
demonstrated levels of cognitive development consistent
with development of nursing students described in other
studies (Colucciello, 1986; Frisch, 1987; Valiga 1983). An
examination of student writing in response to writing
assignments revealed that different kinds of tasks were
effective in challenging students at different levels of
development; different kinds of tasks also elicited
different kinds of cognitve responses. Consistent with
other studies (Stonewater & Daniels, 1983), it was found
that there was not a statistically significant difference
between the two groups in cognitive development at the end
of the semester.

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Perry's Theory of Intellectual Development

> Does anything happen in the mind [of a college
> student] between the ages of 17 and 22 beyond a large
> intake of information, an enrichment of content? Is
> there any substance to the familiar claim that a
> liberal education means learning how to think?
> (Perry, 1970, p. v)

A Description of the Model

Perry's (1970) original description of the "forms" of
thinking and of the intellectual and ethical development of
college students was based on a study of students from the
1958 freshman classes at Harvard University and Radcliffe
College. Perry and his colleagues were struck by how
varied students' perceptions were of faculty and of the
academic and social environment in which they found
themselves. Perry thought that what they were observing in
students were fairly stable personality traits that become
apparent in their approach to learning. In order to better
understand how these traits affected learning, Perry set
out to study and document the "college student experience."

The sample in Perry's original (1970) study consisted
of 31 male students. These students were interviewed at
the end of their freshman year and at the end of each of
their three succeeding academic years. Data for the study
was gathered via audiotaped interviews which were very open

was gathered via audiotaped interviews which were very open and unstructured. The interviewer began with, "Would you like to say what has stood out for you during the year?" (Perry, 1970, p. 7). The study yielded 98 taped interviews including yearly recordings for 17 of the original 31 students. As Perry and his colleagues listened to what the students had to say, they began to detect a coherent pattern of responses to the challenges which the students encountered in the college environment. The content of their responses told less than the "forms" (or cognitive structures) that the students used to interpret their environment. Moreover, it became apparent that these "forms" were not the personality traits that Perry had originally anticipated them to be. Rather, they seemed to be predictable changes in ways of perceiving and thinking that could be traced for individual students over the four years.

Perry (1970) uses an example to clarify what he means by the abstract term "forms" of thinking in relation to concrete experiences. He suggests a lecture where the teacher presents three different theories to explain some phenomenon. A student might assume that there is one theory that is absolutely right, and will look to the teacher, an Authority, to indicate the theory that is right so that the student can come to know Truth. A second student hearing that same lecture also assumes that there

is an absolutely true theory, but that the teacher will not
indicate which one it is either because she wants the
student to figure it out, or because possibly the right
answer cannot be given since the absolute truth has yet to
be discovered. A third student sees that a frame of
reference, or context is necessary for a "right" answer;
several interpretations of the phenomenon may all be
correct, depending on the context the phenomenon is being
considered in. The importance for the teacher of these
students' views is that different students will construct
meaning of the same lecture in different ways. Moreover,
how the student constructs meaning bespeaks how she views
knowledge and her own particular ability to know. Widick
(1977) sums up the issue of these forms, or cognitive
structures as, "A set of assumptions which act as a filter
dictating how the individual will perceive, organize and
evaluate events in the environment and, though less
directly, how he/she will behave in response to those
events" (p. 35).

In examining a student's answers from year to year,
Perry (1970) found that intellectual development could be
traced in a series of these epistemological structures he
called positions (see Appendix A). Each one of the nine
different positions provides the student with a framework
used in perceiving knowledge he is encountering not only in
the classroom but in his world. Each position depicts a

more developed or complex way of perceiving the world than earlier positions and, in fact, each position incorporates and builds upon the preceding position. As Perry refined his theory (1981), he found that a description of these positions alone told only part of the story, producing a static picture of development. Equally important were the transitions and the intellectual and/or experiential "nudges" that prompted movement to the next position.

At position 1, Basic Duality, the student sees the potential to know absolute Truth and Authorities (teachers) as possessors of that Truth. Knowing Truth is simply a matter of hard work, learning right answers from the Authority. Any idea inconsistent with the Authority's is wrong, and the student aligns himself with Authority to produce a We-Right, They-Wrong polarity. This way of thinking provides the student with a great deal of certainty about truth, knowledge and the way one can come to know. However, challenges to this way of thinking quickly arise in the pluralistic college environment, where diversity is experienced both in and out of the classroom. Differences of opinion must be accounted for, especially in instances where Authorities disagree.

At position 2, Multiplicity Prelegitimate, the student accounts for diversity of opinion, and the lack of direct answers from Authority as an "exercise." Truth does exist;

however, Authority may want the student to produce it independently.

The impetus for movement, for transition, occurs as the student comes to realize that not only are students looking for right answers, but so too are Authorities. The student at position 3, Multiplicity Legitimate, sees that there are multiple points of view and clearly recognizes uncertainty, but considers it only a matter of time before truth is discovered. Differences of opinion then are legitimate, for the time being. At this position, students feel the need to figure out what opinion a given Authority holds, so they can give Authority "what they want."

These three positions all represent a dualistic perception of truth, knowledge and one's ability to know for oneself, though the "certainty" of that has been modified by position 3. Positions 4a and 4b represent students who have accepted the reality of multiple ways of knowing, 4b in a more positive mode than 4a. Students at 4a, Multiplicity (Diversity and Uncertainty) Correlate, revel in the notion of legitimate uncertainty for it means that everyone is entitled to their own opinion. No one has the right to say you are wrong! Opinion is based on fact, but quantity of facts is more important than quality; the quality of ideas, of assumptions and relationships between ideas, is not recognized. The transition to position 5, Relativism, can be difficult for students in 4a as they

become entrenched in the notion that they are entitled to their own opinion. But the need to substantiate opinion introduces the idea of "better" opinions, as opposed to simply "right/wrong." Learning, coming to know, at this point takes on a new appearance as students begin to see their own potential involvement in the process.

Students at 4b, Relativism Subordinate, move from mutiplistic to relativistic notions of knowledge less "obstinately". These students proceed to think less about what teachers want them to think to how they need to think, "to the discovery of the articulation of the 'concrete' with the 'complex' in weighing relationships, a mode of thought that is the structural foundation of relativism" (Perry, 1981, p. 87). The ability to see more than one approach to an issue, to look at factors that affect a viewpoint, implies that the student is no longer just a memorizer of facts, but has the ability to make meaning.

At position 5, Relativism, it has become clear that even with much searching, sorting out, and learning, there will be areas of knowing that will remain uncertain, areas in which "reasonable people will reasonably disagree" (Perry, 1981, p. 88). Perry (1970) sees position 5 as pivotal; the preceding structures describe a dualistic perception of knowledge and one's ability to know, gradually modifying to the recognition that knowledge is relative and contextual. From position 5 on, development

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proceeds as a continual reorientation in relation to relativism in the form of commitment(s).

Recognition of relativistic thinking is likely to produce anxiety in students; loss of absolute ways of knowing implies loss of an Authority, of the possibility of someone else who can provide Truth and direction. With the collapse of this possibility comes also the recognition that the self must now be the agent of knowing and decision making, that believing in something and acting on that belief must come from within the self. The first steps in this direction come at position 6, Commitment Forseen, as students acknowledge the necessity of making their own decisions.

At position 7, Initial Commitment, students make their first commitments, often to a career, or possibly a set of values or a relationship, with the anticipation that such commitments will settle the issue once and for all. The discovery that an initial commitment does not after all confer truth or certainty forever, challenges the student to position 8, Orientation in Implications of Commitment. Here, as commitments in several areas of life are made, the need to balance, and rebalance the weight of a variety of commitments in one's life becomes apparent. At position 9, Developing Commitments, it is clear to the individual that this is how it will always be, a reworking of beliefs as one's knowledge changes and a rebalancing of commitments in

response to changes in one's life. There comes an acceptance that there will be periods of equanimity interspersed with periods of reestablishment of knowing and recommitment (Perry, 1981).

Perry (1970) described three alternative positions, Temporizing, Escape, and Retreat, that students might assume at any critical point in their development. In his later writing (1981), he categorized these as "deflections from growth" (p. 90) rather than as positions. These deflections could be positive in the course of development by serving as resting points. They could provide a recourse for the student who, in the process of development, needed a pause, perhaps to gather energy for further growth, to lateralize growth within a particular position, or to seek more comfortable, familiar terrain. For other students, these deflections could be less positive, serving as more permanent deflections from development.

Temporizing was used to refer to a pause in growth that lasted over an academic year or more (Perry, 1970; 1981). This deflection was characterized by a wait-and-see attitude, a waiting to see what event would occur that would give the student some direction. It could occur anywhere in the scheme. An example might be after the acceptance of Relativism but before making a Commitment within Relativism.

Retreat was seen as a regression to an earlier position (Perry, 1970, glossary). Often this occurs in the face of an inability to function at higher levels in the diverse university community (Perry, 1970). This retreat provides the safety of Right/Wrong thinking, and the possibility of positioning the self with the certainty of Right. It is a route taken out of a sense of alienation, out of a sense of discomfort in accepting a multiplicity of opinions and the anxiety aroused in accepting the "temptations" such multiplicity offers.

Escape, the last deflection from growth, can occur in positions 4 or 5 (Perry, 1970). Here the student abandons his responsibility, dissociates himself from the challenge of continued growth, from a self capable of coming to know. The student often permanently remains in the impersonal position 4a, Multiplicity Correlate, where there is no certainty, where one can feel free to hold an opinion without substantiating it. Another variation of escape is dissociation into Relativism where knowing is recognized as contextual, but there is an inability to move on to Commitment. Perry (1981) found that while escape became a permanent holding place for some students, for others it became a resting point in transition. "It is a space of meaninglessness between received belief and creative faith. In their rebirth they experience in themselves the origins

of meaning which they had previously expected to come from the outside" (p. 92).

Elaboration and Extension of the Theory

Perry (1978; 1981) continued to elaborate on the scheme and other researchers have extended his work, both making explicit concepts implicit in Perry's work and developing his theory more fully.

Perry (1970) and others (Hadley & Graham, 1987; Widick, 1977) have examined the impetus for transition, for movement from one position to another. Perry found in his study that transitions seemed to be related to a number of factors, acting either singly, or at times, in concert: "Sheer curiosity, a striving for the competence that can emerge only from an understanding of one's relation to the environment; an urge to make order out of incongruities, dissonances, and anomalies of experience...a wish for community with men looked upon as mature..." (p. 51). Perry pointed out that the forces towards maturation were not, however, the only forces operating in the student's development. They were counterbalanced by the "comfort" of a present position, the fear of loss incumbent in the situation of moving on and losing old ways of viewing the world, and the fear of the disorganization that leaving familiar constructs might precipitate (1978).

Widick (1977) used the term "disequilibrium" in examining factors that provoke developmental change. She states that development results from disequilibrium; that "when the individual is confronted with information that cannot be assimilated to his/her existing mode of thinking, he/she alters his/her assumptions to admit more complexity" (p. 37).

Widick and Simpson (1978) point out that while Perry focused on the internal cognitive structure, his interview data also demonstrated external behaviors that reflect different developmental positions. Dualistic thinkers find that encounters with diversity and uncertainty are very stressful. Tasks which require them to move beyond simple knowing (for example, to interpret, or to compare and contrast ideas) prove difficult because they are not capable of recognizing that there could be a variety of legitimate explanations or ways of looking at an issue. Learning occurs only at the direction of the teacher, the Authority in the situation. Evaluation looms large and they want to know details about how many pages they will need to read in order to get an "A," or what exactly will be on the test. Dualistic thinkers want clear directions that they can use to demonstrate what they have learned. Widick and Simpson (1978) state that relativists, on the other hand, approach learning much more positively and independently. They internalize learning and seem to use

effective strategies in studying. They are capable of higher-level thinking skills, such as analysis, and later on, synthesis and evaluation.

A related issue that has been elaborated upon is the concept of locus of control. The Perry model demonstrates a movement from an external to internal locus of control. Knefelkamp and Slepitza (1978) suggest that a primary difference between dualists and relativists is the perceived site of locus of control. Dualists see direction given to them from external authority. Relativists, while they consider factors external to themselves in making decisions, finally depend on themselves for direction. Students at positions of commitment, "are able to make decisions within the framework of doubt and risks and are able to assume responsibility for the consequences of such decisions. The dualistic thinking student is unable to assume such responsibility or to take such risks" (p. 149).

Clinchy and Zimmerman (1982), in their study of cognitive development in women, addressed this same issue somewhat differently. They related cognition at different positions in terms of "agency," a word that Perry (1970; 1981) himself had used but not elaborated on quite as fully. Clinchy and Zimmerman found that a female college student's epistemology, "her assumptions about knowledge, truth, and value affect the degree to which she can be an active agent" (p. 163). Agency then is a student's ability

to make decisions herself and to act on them. At less
developed positions, Clinchy and Zimmerman found that the
student did not expect others to value her opinions.
Moreover, witha lack of faith in her ability to reason, she
had no means of developing her own opinions, hence no
ability to decide for herself, and then to act. As these
women grew in their ability to reason, to develop opinions
substantiated with reason, they began to see themselves as
capable of acting on these opinions. They developed
agency.

Perry in his later writings (1978; 1981), elaborated
more fully on the issue of how difficult the process of
development can be. He cites a distinction students make
between "just learning," and "really learning." Students
describe "just learning" as content learning. "Really
learning" means coming to see the world and themselves in
new and more complex ways, making discoveries that indicate
steps forward in cognitive maturation. But those
discoveries imply leaving behind simpler ways of
perception, of knowing, of a structure that contained hope
and direction. When that structure is left behind, new
ways of seeing hope in the future, of direction, must also
be discovered. Fishman (1985) cited John Dewey's notion
that, "learning requires courage, requires risking and
letting go" (p. 332). Fishman said of his own intellectual
development that he came to see that learning involved not

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just change, but letting go: "And when I let go of the prescribed, celebrated paths, I became alert to I-know-not-what, but it was to alterations broader and deeper than incremental additions to structures already in place" (p. 332). Perry (1981) suggests that such movement, such giving up of the familiar, involves a sense of loss. Like other kinds of loss, grief proceeds more easily when it is acknowledged, when it is recognized and accorded the respect it deserves by faculty.

Perry found that all students in his initial study (1970) demonstrated cognitive development consistent with one of the positions 2 through 8. No student expressed perceptions consistent with position 1, even in the first interviews carried out in the spring of their freshman year. Most freshmen were found to be at positions 3, 4, or 5, positions of multiplism or early relativism. By the end of four years in college, in the spring interviews of their senior year, most students were functioning at positions 6, 7, or 8, relativism, and commitments within relativism. No student was functioning at the most complex level, position 9.

A number of studies have been done by various other researchers since Perry's initial work, and a number of instruments have been constructed to evaluate cognitive development. Clinchy and Zimmerman (1982) found levels of development in female college students to be similar to the

male students Perry had studied. Only one student in the freshmen group was found to be functioning at position 2, with very dualistic perceptions of her world. Approximately 40 percent, the majority of freshmen women, were functioning at position 3, Multiplism, but only five percent were at this level in the senior year. Seventy percent of students had moved beyond position 4 by the end of the junior year, 80 percent by the senior year, with a few temporizing there. Clinchy and Zimmerman found that the majority of senior women were functioning at position 5, which they called Contextualism rather than Relativism. A few had moved to position 6, and another few to position 7, Initial Commitment.

Other research using Perry's model (or models based on his) have demonstrated less advanced development in college students. Knefelkamp and Slepitza (1978), in examining career choice as it relates to cognitive development, found university freshmen and sophmores at positions 2 and 3, dualistic positions; seniors were at positions 3, 4 or 5 as were first-year master's students; advanced graduate students were at positions 6 and 7, relativism and Initial Commitments. Stonewater and Daniels (1983) measured the cognitive development of freshman students before and after a career decision-making course. Out of the 23 students in their study, they found nine students entered the freshman year at position 2, and 14 at position 3. At the end of

the course, and a whole year in the college environment, five remained at position 2, 17 were now in position 3, and one had moved to position 4. Hadley and Graham (1987) studied a heterogeneous sample of students, ages 17 to 66, with freshman through graduate standing. Within that group, 18 were rated as dualists at position 2, 107 were multiplists at position 4, and only four were found to be relativists at position 5.

Kitchener and King (1981) constructed the Reflective Judgement Model based on, and similar to, Perry's model. Their scheme describes stages of increasingly complex assumptions about knowledge, reality, and how those assumptions relate to justification of opinions and the ability to reason critically. Theirs is a 7 stage model, describing dualistic perceptions through the first 2 stages, multiplistic perceptions at stages 3 and 4, relativistic perceptions at stages 5 and 6, and stage 7 akin to Perry's Commitments. In their study, Kitchener and King (1981) examined whether students at very different educational levels would in fact reason at very different levels of cognitive complexity. College juniors (n=20) functioned between stages 2 to 5, with two at stage 2, 17 between the multiplistic stages 3 and 4, and only one at stage 5, where early relativistic thinking occurs; the mean position for this group was 3.65. Doctoral level graduate

students (n=20), varying in age from 24 to 34, functioned between stages 4 to 7, with a mean stage of 5.67.

Welfel and Davison (1986) used Kitchener and King's Reflective Judgement Model in a longitudinal study of 25 students at a large midwestern university. They found incoming freshmen functioning between stages 3 and 4 on the Reflective Judgement Index, with multiplistic perceptions of knowing. By the spring of their senior year, none of these students were functioning beyond stage 5, and most were at stage 4 thinking. This led Welfel and Davison to conclude, "...college does not produce individuals able to make the fully reflective judgements [characteristic of advanced cognitive development]...The college experience has the potential to influence student's intellectual development even more than it does currently" (p. 215). Schmidt (1985) shared similar sentiments. In a study designed to determine whether age or education had the greatest impact on the intellectual development of college students, she found an average stage of 3.55 for juniors, on the Reflective Judgement Scale. She declared, "the most disturbing finding of this study is the level of intellectual development attained by college juniors, individuals with the advantage of both age and education" (p. 393).

Lastly, studies of the cognitive development of baccalaureate nursing students (Frisch 1987; Valiga 1983)

have demonstrated that upper division nursing students function, in the main, in a range between positions 2 and 4, using Perry's model. A more recent study by Collucielo (1986) found that 140 nursing students, representing six different baccalaureate nursing programs, primarily demonstrated dualistic levels of development with a few at very early levels of multiplism. Allen, Bowers, and Diekelmann (1989) stated in their discussion of the cognitive development of nursing students, "These students continue to perceive knowledge as the accumulation of facts, unable to comprehend the significance of changing contexts" (p. 8).

Implications for Education

[Students'] basic assumptions about the nature of truth and reality and the origins of knowledge shape the way [they] see the world and [themselves] as participants in it...[their] definitions of [themselves,] the way [they] interact with others...[their] sense of control over life events, [their] views of teaching and learning, and [their] conceptions of morality.
(Belenky, Clinchy, Goldberger & Tarule, 1986, p.3)

Perry (1981) confronts the issue of cognitive development as an appropriate aim of higher education generally, and the use of his own theory in particular, to prescribe educational curricula to promote this development. Perry stated that he "initially felt a deep aversion to 'application' in the sense of transforming a purely descriptive formulation of students' experience into a prescriptive program intended to 'get' students to develop" (p. 107). What he came to see through the work of others who used his theory in creating curricula and strategies to promote growth (Knefelkamp & Slepitza, 1978) was that the values inherent in his scheme were consistent with the aims of higher education. Kitchener and King (1981) point out these values and the worth of Perry's theory as well:

> To the extent that a major goal of higher education is to teach students how to be mature inquirers who participate in the construction and critique of theory and knowledge, and to the extent that this goal may be understood as an outcome of a developmental sequence, then a description of this sequence is an essential prerequisite to understanding how this goal can be achieved (p. 113).

Kitchener and King (1981) go on to suggest that a student's assumptions about reality, knowledge, and one's

ability to know will affect how that student perceives the learning process, and one's participation and involvement in education. Also, a student's assumptions about reality, knowledge and her own ability to know will have an effect on her ability to make judgements about complex issues, on her ability to make decisions and act, on where she locates locus of control, on whether or not she has an internal sense of agency. To make judgements implies an ability to think critically, to analyze information and ideas, reflect on their logic, evaluate what is before her, and make a decision based on that analysis and evaluation; and then to be willing to act on the basis of that thinking. To the extent that higher education wishes to produce mature thinkers who see themselves as capable of coming to know and having the ability to act on that knowledge, who have an internal sense of control, who have agency, this model offers the possibility of prescription.

Perry (1970) saw the intellectual and moral development he was describing as a product of the interaction between a student and the college environment. Encountering conflict, considering the source of that conflict, and coming to terms with it, provides the student with the impetus for developing a new perspective on the nature of reality, knowledge and the ability to know. Widick (1977) points out that because intellectual development is an interactive process, the college

environment has the potential to either facilitate or hinder intellectual growth.

Hays (1987) suggests that "intellectual growth cannot proceed without cognitive readiness" (p. 16). Intellectual maturation does not depend on learning content. It arises out of conflict; out of challenges to present ways of perception, challenges to one's assumptions about reality, knowledge, and how one comes to know. It arises out of cognitive dissonance, and the need to readjust one's views in order to be able to make sense of the world again.

Perry (1970) felt that, "Structurally different epistemological assumptions imply different forms of teaching and learning congruent with them" (p.43). Other educators have agreed (Hadley & Graham, 1987; Hays, 1987; Widick, 1977), suggesting that a developmental approach involves evaluating development in order to provide appropriate challenges that will be most effective in facilitating cognitive growth.

An admonition from Perry (1978) echoed by others (Hays, 1987; Schmidt, 1985; Widick & Simpson 1978) in the "application" of his theory, is the need not only for challenge but also for support of the student. Perry cites the courage that a student must have in order to leave behind certain ways of knowing to embark on uncertain ways, to give up external control of direction and learn to rely on the, as yet, uncertain self for direction. Application

of his theory in Perry's view (1978), requires a humanistic approach that says, "If in prizing you [the student] and otherwise providing you with nutriments of growth, I may hope to 'foster' your growth, I will remember that this is a very different matter from 'getting you' to grow" (p. 62).

Pintrich (1988), in discussing strategies used to facilitate cognitive development points out that if academic tasks do, in fact, guide the way students come to think and learn, changing the way tasks are assigned is necessary. If an educator, in a desire to facilitate cognitive development, wants students to meet objectives beyond knowledge and understanding, or even application of content, then objectives must clearly speak to the development of thinking and self-direction. Pintrich is quick to point out that what he is talking about is not necessarily new teaching-learning strategies, but the way in which those strategies are used. He feels that it is necessary for faculty to conceptualize the teaching-learning process in new ways, to have goals that go beyond content learning, to develop goals and objectives addressing the way students think and the maturation of their intellectual function.

Because cognitive dissonance is vital to the process of development, faculty must be able to operationalize that dissonance, to identify strategies that create

disequilbrium and stimulate growth. Widick (1977) and others (Stephenson & Hunt, 1977; Stonewater & Daniels, 1983; Widick & Simpson 1978) suggest that factors that provide challenge and those that provide support are stage specific. All of these educators agree with Widick (1977) that, "The central assumption in applying Perry's model is that one starts where the student is" (p. 37). Most educators who have designed courses to facilitate development recommend assessing individual levels of development so that challenges and supports can be properly employed (Baxter Magolda, 1987; Hays, 1983; 1987; Widick & Simpson, 1978). Development is encouraged by a combination of factors, those that challenge students to reach beyond their present level of functioning, and those that support them as they initiate these new and "risky" ways of thinking (Schmidt & Davison, 1983). Challenges prompt the student to examine what he thinks and to consider alternatives, perhaps even taking a different course of action than he might ordinarily. Brookfield (1987) suggests that faculty, in providing challenges:

> Toss little bits of disturbing information in their
> students' paths, little facts and observations,
> theories and interpretations, cow plops on the road to
> truth, that raise questions about their students'
> current world-views and invite them to consider
> alternatives, to close the dissonance, accommodate

their structures, THINK afresh (p. 223).

Hays (1983) calls these dissonances "calculated incongruities" and points out that as students encounter conflicting pieces of information they are challenged to make sense of them, to alter their present perceptions to allow for the diversity presented, provoked to more complex levels of perception.

Support is an equally important factor and consists of, "those [teacher's actions] that sustain while new 'risky' behaviors are initiated" (Schmidt & Davison, 1983, p. 566). Perry (1970; 1978) had described students' reactions to their changing perceptions of thinking as a form of loss that could not be ignored by educators interested in assisting growth.

Educators interested in cognitive development have described effective challenges and supports to meet specific goals for students at different levels of cognitive function. Dualists need to be encouraged to appreciate multiple points of view (Schmidt & Davison, 1983) and be challenged by teachers who, "highlight alternative ways of thinking and feeling" (p. 566), legitimizing diverse points of view. Effective support can be provided in the form of clear guidelines. Multiplists need to be challenged, "to see relative values of different points of view: On what basis can different points of view be evaluated? How might a viewpoint change depending on

its context? Can a viewpoint be wrong in one context and right in another?" (Schmidt & Davison, 1983, p. 567) Students at position 3, operating in early stages of multiplism, appreciate a congenial atmosphere which acknowledges their individual needs. Students at position 4 find it supportive to be allowed more freedom to explore ideas (Baxter Magolda, 1987)

Relativists require an environment that allows them more self-direction in their own learning, and a sense of intellectual community as support (Widick & Simpson, 1978). Relativists need to be challenged to commit themselves to a way of thinking. Widick and Simpson found that challenges for relativists arise from demands for commitment when faced with relativistic, diverse information or opinions. They need to see that, "Judgement decisions are an ongoing part of life; decisions can be made, but must be flexible to change if new information [or] conditions emerge" (p. 40). Relativists find support in faculty relationships that are more collegial, where they see each member, teacher and student, learning from the other, and learning together (Baxter Magolda, 1987).

Belenky et al. (1986) found that students described the ideal teacher as one who valued student thinking. This teacher, rather than challenging students' opinions, encouraged them to expand on their ideas, nurturing their attempts to think in more complex ways. She did not focus

on her own knowledge, as a lecturer does, but used her knowledge to put students in contact with the recognition that they too could come to know for themselves. This educator provided a rich environment, where both students and teacher were in the process of thinking, learning, and discovering together as a community of scholars.

Beyond Writing-to-Learn: Writing for Thinking and Cognitive
Development

Much has been written about the writing-to-learn
movement in education for students at all levels. The
movement was born out of a study that examined the kinds of
writing done by children ages 11 to 18 in England (Britton,
Burgess, Martin, McLeod, & Rosen, 1975) and continued in
this country under the auspices, first, of the Bay Area
Writing Project and, then, the National Writing Project
(Myers, 1985). There are many kinds of writing that
students can engage in to enhance their learning of
content. Writing-to-think tasks share common elements with
writing-to-learn but also have characteristics of their
own.

Britton et al. (1975) identified two elements in
student writing that seem to have an enormous impact on how
writing affects learning and on the kind of learning or
change that occurs. The first is the writer's sense of
audience, WHO the writer is writing for. Researchers who
have examined writing-to-think or writing-to-develop have
also found the issue of audience to be of particular
importance. Applebee (1984) points out that what a student
thinks, what she discovers through her writing, can be very
different depending on who she is writing for. In
examining an issue, she may feel the need to persuade an

audience of peers to see her point of view. In examining

the same issue with herself as audience, she can use

writing to carefully look at what she thinks, question what

she thinks she knows, look for new connections, using

writing as an act of discovery. Myers (1985) suggests that

when the audience is teacher, as it most often is at all

levels of education, (Britton et al., 1975; Myers, 1985),

students frequently feel compelled to "psych out" the

teacher by trying to figure out what the teacher wants in

order to write what is necessary. Hays (1983; 1988) and

colleagues (Hays, Brandt, & Chantry, 1988) found that a

student's level of cognitive development (as measured in

relation to the Perry scheme), correlated with her ability

to respond to different audiences. Two kinds of audience

were used for these studies; one that would be perceived as

hostile and one perceived as friendly to the student's

point of view. Less cognitively mature students had

difficulty adequately addressing the concerns of an

audience that did not share the student's viewpoint. In

fact, dualistic students were not capable of substantiating

their own points of view when writing for any audience,

even a "friendly" one. They could not explore their

thinking or their assumptions when asked to do so. They

simply did not know how to go about it.

The second element that Britton et al. (1975)

identified in student writing was "function." Function

spoke to WHY; the purpose of the writing. Three categories
of writing function were described: Expressive,
transactional, and poetic. Of the three, expressive
writing most closely resembles thinking. "It is the means
by which the new is tentatively explored, thoughts may be
half-uttered, attitudes half-expressed, the rest being left
to be picked up by the reader who is willing to take the
unexpressed on trust" (Martin, D'Arcy, Newton, & Parker,
1976, p. 23). Transactional writing, on the other hand,
uses language to accomplish a purpose, rather than to
explore an idea for the sake of discovery. In
transactional writing, the student is reporting other's
ideas, or substantiating his own opinion with someone
else's words, as opposed to exploring and expressing his
own ideas with his own words. It has been found (Britton
et al., 1976; Myers, 1985) that transactional writing
accounts for the vast majority of all writing in which
students engage.

Poetic writing describes the third functional category
of student work, and is "writing in which it is taken for
granted that 'true or false' is not a relevant question at
the literal level. What is presented may or may not be
representational of actual reality..." (Martin et al.,
1976, p. 25).

Bereiter (1980) enlarges these categories of function
of student writing in looking at student development. He

includes a category termed "unified" writing, which is more complex than transactional, in that it includes the writer's own perspective as a reader of what she is reporting. The student is not simply reporting someone else's ideas, but is integrating her response with a personal point of view. Bereiter's last category is "epistemic" writing which is unified writing combined with reflective thought. This writing becomes a search for meaning; writing here is "no longer merely a product of thought but becomes an integral part of thought" (1980, p. 88).

The relationship between writing and thinking and eventually understanding has been examined by a number of authors and researchers. Emig (1977) saw writing as unique among the four language processes (listening, reading, talking and writing) used for learning. Writing, because it can be original and creative in the learner, separates it from listening and reading; and because it is "graphically recorded," it is different from talking. Glatthorn (1985) extends that idea in looking at the effect of writing on the thinking process. As "frozen speech" (p. 68), writing allows the student to distance herself from what she is writing about, to examine relationships between concepts and ideas. "The act of writing, in a way that makes it significantly different from the act of speaking, is essentially an exploration into the unknown; we write to

discover what we know" (p. 69). This suggests that writing allows the writer to find (in her mind) knowledge that she may not be fully aware of, or to perhaps make connections that had not been made before. DiYanni (1984) points out that most unexpressed ideas are not clear, even when the writer thinks she is clear about what she thinks and wants to say. "Writing rarely happens that way. Ideas don't come fully formed, perfectly clarified, beautifully phrased...They usually find form during the writing..." (p. 2). E. M. Forester perhaps said it best. "How do I know what I think until I see what I say" (cited in DiYanni, 1984, p. 2).

Beyond discovering what one thinks, Elbow (1986) suggests an added benefit of having the idea out on the written page, out of the mind so to speak, so that the mind is freed up to go on and deal with a second idea. In this way the writer can, "entertain two thoughts or feelings at the same time or think about the relationship between thoughts or feelings" (p. 45). The value of the writing, then, goes beyond clarification of what one thinks. The writer can now examine the thought in relationship to other ideas.

The nature of writing as a thinking process, the reciprocity between the effect of thinking on writing and the effect of writing on thinking, is best described by the work of Flower and Hayes (1981). While writing has often

been depicted as a linear process, consisting of prewriting, writing, revising, and rewriting (Emig, 1981), Flower and Hayes describe a cognitive process model of writing. In this model, the writer as thinker is always at the center of the process. As opposed to a linear model, here the writer moves back and forth between three major cognitive components that have processes embedded in them. As shown in Figure 1 (Flower & Hays, 1981, p. 370), one component is the task environment which contains the original writing task, that is, the original question posed with a specific audience identified. As writing proceeds, the writer's work, the text she has already produced, also has an effect on what she writes and it becomes part of the task environment. Another component is the writer's long-term memory which contains the information she has stored not only about the topic but also about the audience she is writing for and about the process of writing itself. The third component involves the actual process of writing, generating ideas, planning and organizing how to present them, translating ideas into words, forming, evaluating and revising those words, with the audience in mind. This component also contains a monitor, which governs the need to move from one process to the next.

This model, based on a study of college student writers, using protocol analysis (Flower & Hayes, 1981),

TASK ENVIRONMENT

THE RHETORICAL PROBLEM
Topic
Audience
Exigency

TEXT PRODUCED SO FAR

WRITING PROCESSES

PLANNING

GENERATING

ORGANIZING

GOAL SETTING

TRANSLATING

REVIEWING

EVALUATING

REVISING

MONITOR

THE WRITER'S LONG-TERM MEMORY

Knowledge of Topic, Audience, and Writing Plans
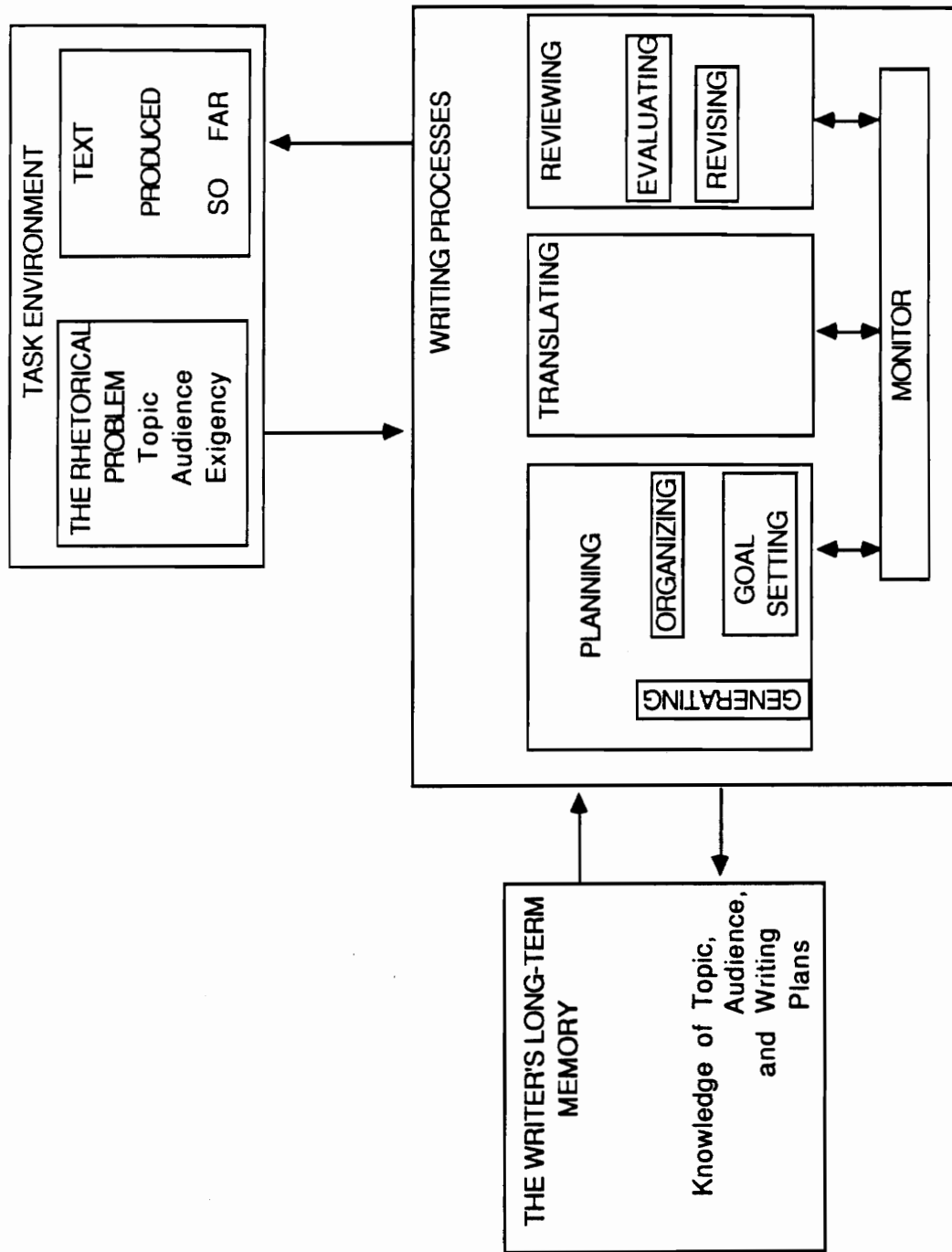
FIGURE 1: COGNITIVE PROCESS MODEL OF WRITING

describes the writer continuously moving in and out of different environments as she writes. For example, a writer as she is generating ideas, may go back to the text she has already written to clarify for herself what she has said, (what she thinks!). Then she slips back into long term memory for more information about the idea, going back to the writing process itself and translates the idea, monitoring the production of the idea as it moves from pencil onto paper. Flower and Hayes state that writers find that, "writing often seems a serendipitous experience, an act of discovery" (p. 375). In other words, they found that these student writers described writing as a form of learning for themselves, as they discovered through their writing what they knew and felt about a subject.

Emig (1977) and Applebee (1984) examine features of writing that are related to successful learning and also to thinking. Learning is more successful when reinforcement and feedback are prompt, and writing allows for that. The permanence of writing provides the opportunity for the student to immediately see her thinking on the page before her, and to evaluate her thinking for content and clarity, for connections, or misconnections. The successful learner is involved, intentional, and she makes her learning personal. Emig points out that writing has the potential to be all of those things. It is self-paced. It connects the writer not only externally as communication, but to

herself. In grappling with her thoughts to make ideas
clear, the writer becomes involved with her ideas, with
what she thinks and knows and with what she doesn't know,
but discovers she needs to find out. The rhetorical
question, as it was originally formed, and as it changes
over the course of writing, provides intention.

Irmscher (1979) extends Emig's ideas about writing,
learning, and thinking to include development. He notes
that learning implies acquiring new information, skills or
behavior, while developing implies, "more complex stages of
organization. It is useful to think of writing as a
process of growing and maturing, in which we move from a
first stage of learning [represented in the writing] and
then, by exploring new connections and new combinations,
developing new potentialities for knowing" (p. 242).
Writing encourages us to be clear about what we think. It
requires us to rephrase when clarity is absent, and in that
act of rephrasing, to look harder at what we think. We can
make those connections that are necessary for ourselves, as
well as for our readers. Writing then is active,
"providing a medium for exploring implications entailed
within otherwise unexamined assumptions" (Applebee, 1984,
p. 577). Irmscher (1979) suggests that if we think of
education as helping students learn to come to know for
themselves, and of helping them learn how to use their

knowledge in a variety of situations, "writing serves
[well] as a way of learning and developing" (p. 244).

Hahn (1987) points out that many students "get stuck"
in the development of their thinking skills because, "the
academic writing and lecturing [they] are exposed to often
seems like a monological exposition of truth" (p. 97).
While strategies such as lecture, fill-in-the-blank
worksheets, and multiple choice tests make it possible to
"cover" content relatively rapidly, they do not allow
opportunities for students to synthesize, to make meaning
of new information and search for insights on their own
(Michalak, 1986).

The kinds of innovations that provoke thinking as
opposed to memorizing are not new. But such strategies
require faculty to be self-conscious about exactly what it
is that they want students to accomplish in their courses
(Michalak, 1986). If cognitive development is a goal, such
strategies, including writing, must be created with the
intent of development in mind. Devising such strategies,
and then evaluating outcomes in terms of acquisition of
content would be inapproriate. Hays (1987) points out that
content, the "stuff" of a course, is central, but equally
important is how students engage in the learning of it.
Developmental aims and strategies are an issue separate
from content, and as such, must be evaluated separately.

In examining writing strategies that facilitate thinking and cognitive development, it would be important to evaluate the potential effectiveness of those strategies in challenging students' thinking. Whether or not writing occurs that extends thinking and cognitive development will depend on both the intent of the faculty using it and the way in which the student undertakes the task. An important feature of writing-to-think and develop is that it is not writing to be evaluated, in the summative sense of the word. It is the kind of writing that Draper (1979) calls formative writing, writing that is not used for grading, but to be responded to. She suggests that writing in the formative sense implies the student's discovery of what she knows, does not know, and what questions she has, as opposed to only demonstrating achieved knowledge. The audience can be the student himself, her peers, or her teacher in the role of teacher-in-dialogue, any audience that does not put constraints on exploring, thinking, connecting, risking. Writing that becomes a shared dialogue between teacher and student offers the opportunity for exporing issues and connections, often for both parties.

Freewriting is a writing strategy that has been used by educators for a number of purposes. Elbow (1981) suggests that with freewriting the student apply her pen to paper and write for a designated period of time. Most

often the self is the audience in freewriting. The objective is to write whatever comes to mind about the topic she is dealing with; the writing is meant to be generative. Freewriting gives the student permission to be inarticulate and unconcerned with grammar or spelling. The product is not what is at stake here; rather, it is the process of going in and out of the mind to discover what one thinks about a subject and what one wants to know.

In a discussion of teaching thinking by writing, Elbow (1986) describes two kinds of thinking and relates the kinds of writing tasks that contribute to their development. "First-order" thinking is unedited thinking, intuitive thinking that isn't particularly guided. It is freeflow, wandering, creative. It is the kind of thinking that occurs with freewriting where thoughts aren't censored or edited as they move from mind to paper via the pen. Second-order thinking, on the other hand, "is committed to accuracy and strives for logic and control: We examine our premises and assess the validity of each inference. Second-order thinking is what most people have in mind when they talk about 'critical thinking'" (p. 55). Elbow (1986) points out that each kind of thinking and the writing associated with it then serves its own useful purpose. First-order thinking and freewriting allow the writer to spontaneously formulate thoughts. If he can prevent himself from stopping to reflect on what he is writing, to

not edit before the idea emerges as a whole, "he is more likely to be steered by [his] unaware assumptions...[his] unexamined point of view" (p. 57). The student sees what she thinks.

Second-order writing becomes a way of examining those insights with second order thinking. The student can now critically examine the ideas and assumptions that she generated with freewriting, that may not have been so explicit to her before. Second-order writing is also the writing used in revising, "the coming back to a text and re-seeing it from the outside" (Elbow, 1986, p. 58). Both kinds of writing Elbow describes would seem to be very useful in writing for cognitive development. Students need to examine their assumptions, but before they can do that, they need to know what those assumptions are. Freewriting would allow students the opportunity to get their ideas, their opinions or feelings about an issue, out on paper. Then they can begin to deal with them, to see if they can support what they think, evaluate those ideas in relation to other ideas, see if there is more than one way to look at an issue, and see if context makes a difference. Carefully chosen topics for freewriting, and appropriate challenges and supports by the teacher that meet the developmental needs of the particular student, would aid and abet the process of cognitive development.

Elbow (1983) warns that freewriting can be difficult

for writers who are accustomed to having their academic writing evaluated or who are their own most stringent evaluators; the kind who look for clarity of expression on the first try. Freewriting has the potential of freeing up the inhibited writer who blocks incoherent ideas from entering the page in a way that may not allow her to discover her own ideas, or to make connections she has not yet made. It may take some patience, and persistance, on the part of both teacher and student to trust enough in the technique to let it happen.

Journal writing has been described in a variety of ways by teachers who use writing to learn, think and develop. Fulwiler (1980) describes journals assigned in his college English courses as "somewhere on a continuum between diaries and class notebooks. Whereas diaries are records of personal thought and expression, class notebooks are records of other people's facts and ideas" (p. 17). The journal is to be written in the student's voice, in the first person, but focuses on course work. Each journal entry has as its purpose the exploration of an idea. Selfe and Arababi (1986) used journals in an engineering course and found that the writing, "helped students clarify their thoughts... [and] work out strategies for solving engineering problems" (p. 185). Both faculty and students found the dialogue they engaged in, and the "positive rapport" (p. 186) that was established between them, a

benefit. Hahnemann (1986) used journal entries in nursing courses for a variety of thinking exercises. An example of an inclass exercise was writing used to compare and contrast nurse-client relationships and personal relationships. Forsman (1985) talks about "focused freewriting" in journals. With one entry, she asks students to, "reflect on themselves in their journals, and speculate on how their past shapes today's person and tomorrow's" (p. 167).

Schmidt and Davison (1983) found journals useful in writing-for-cognitive development. They suggest that journals provide a place for students to reflect on their experiences, to dialogue with their teacher in a less formal, more personal way than in verbal communication. Journals offer faculty feedback and insights into their students' thinking and development. Importantly, journals provide a vehicle for individualized challenges and supports in relation to developmental goals. The entries students make in journals used for enhancing cognitive development would probably not be as discretionary as writing-to-learn or writing-to-think journals. Here entries would be in response to faculty challenges, topics selected to help students develop their perspectives on knowledge, truth, and how one can come to know for oneself.

There are a number of short essay writing tasks that seem appropriate in facilitating intellectual development.

Bean, Drenk, and Lee (1982) describe the use of "microthemes" that encourage students to see beyond their own perpectives. The different kinds of themes share in common their brevity (they are to be written on a 5 x 8 notecard) and the intent to use content related issues while encouraging active thinking and developing. The "summary writing microtheme" is used to introduce diversity. Students are to write a 100-200 word summary of an article selected by the teacher, an article that presents diversity. "Having students summarize articles that express opposing points of view urges them away from superficial one-right-answer thinking" (p. 30). This kind of writing would be an especially effective task in challenging dualistic thinking. Bean, et al. have found that students will often introduce their own opinions into the summaries in an attempt to make what they are reading and writing about more "comfortable." They need to be reminded to "hear" the author's viewpoint and present it. Bean et al. suggest that students make a journal entry in relation to the summary, where they can explore their own subjective reactions to the article they have summarized. Providing an opportunity for students to look at their own reactions allows them to see how a different perspective might, or might not, mesh with their own, having had to fairly present the opposing point of view.

A second type of microtheme, the "Thesis Support

Theme" is designed "to help students discover issues and create propositions within a content discipline" (Bean, et al., 1982, p. 30). The teacher provides an issue to be written about in terms of contradictory propositions. The propositions represent issues that are controversial and for which there are no right answers in the discipline. An example might be "Euthanasia should/should not be a legal practice." Students pick one of the alternative propositions and defend their position. They must write a thesis statement and support it. This task becomes an especially useful writing strategy for mutiplists and relativists. Multiplists can be encouraged to look at the context of opinions and assumptions, and relativists can be urged to take a stand.

Bean et al. (1982) contend that these two kinds of microtheme assignments are designed to promote cognitive development. The writing encourages students to become more active in their learning, to SEE themselves as active knowers in the learning process. These kinds of writing encourage them to examine knowledge qualitatively rather than quantitatively as facts to be acquired. "They do much to promote [cognitive] growth, because they encourage openess to alternative points of view and foster the ability to see the world in terms of complex issues, not of right and wrong answers" (p. 38). Students begin to realize that their discipline is not merely a body of

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knowledge, content that needs to be memorized. Looking at these kinds of issues encourages students to see that there is uncertainty.

The "half-sheet response" used by Weaver and Cotrell (1985) has some similarities to the microtheme tasks. The writing is short, limited to one-half of a sheet of notebook paper, and the strategy is aimed at encouraging students not only to memorize content but also to look at how topics relate to their lives. The issue of euthanasia again could be used as an example here: "How do you see this issue relating to you in your practice?" Students respond to the specific issues suggested by the teacher. The teacher reviews the responses and shares some (anonymously) at the next class meeting. Responses selected are varied to encourage students to compare ideas, to see that there is more than one way of looking at any issue. Weaver and Cotrell found that students valued these writings; "Sharing allowed listeners to compare their own thoughts, responses, behaviors, and reactions with those of others. Everyone is so different and has so many varying experiences. My knowledge expands..." (p. 27).

Wolfe and Pope (1985) discuss the importance of dialectical thinking, "the process which examines how bits of information or sets of assumptions prove and disprove each other" (p. 12). Students can develop dialectical thinking through writing about issues that offer

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alternative choices, where they must analyze and evaluate ideas. They not only offer an opinion on the issue, but must explore thinking on both sides of the issue and the consequences of decisions.

Hahn (1987) used a similar method that he calls "counter-statement" to develop critical thinking. To focus the written dialogue, Hahn uses a counterstatement to prompt student thinking, such as:

> Write a definition of _____ in which you show the need to arrive at common definitions by using your dialogue as an example of the problems created by mismatched definitions. State the context in which your definition holds and demonstrate your awareness of contexts in which it might be questionable (p. 98).

An example might be the student's definition of "family." Hahn feels that the assignment increases student self-awareness because the contexts of issues include conflict and questions which students actually experience. The writing is not just an academic exercise to demonstrate knowledge about an issue. The students care about what they are writing. Exploring the issue in this manner fosters self-discovery by helping students look at assumptions and at different points of view about the same issue. Perhaps the writing encourages them to look at sources of knowing, and their own way of knowing.

Newell (1986) looked at the importance of dialectical thinking and cognitive development in his examination of the effects of different kinds of writing tasks. He points out that when writing does seem to facilitate thinking, it is because of the "dialectical set-up" between the question the writer is faced with and her own understanding of the topic. In writing an analytic essay, a student must create logical text and support her point of view. Her previous knowledge and experience must be integrated with what she has learned. Newell points out that this kind of essay writing asks the student to explain and interpret concepts and principles that she is learning and to integrate them into her prior knowledge. "This view of learning holds that knowledge is acquired interactively by assimilating information and locating it within existing frames of knowledge, and by accomodating new information leading to a restructuring of knowledge" (p. 300). If this new information is ill-fitting, it can create dissonance, challenging students to examine their assumptions. It must be pointed out that although this is transactional writing, and therefore probably written for an audience other than the student herself, potentially it can be writing to enhance cognitive development.

There are certain attributes of all of these writing tasks that suggest that they would be appropriate in promoting cognitive development. Most of them encourage

the student to put her own perspective aside for a time, and look at the legitimacy of other points of view. For the dualist, the very act of seeing the possibility of another, equally likely, opinion would represent growth. It is possible for the same task to encourage the multiplist to examine opinions contextually, to come to see that all opinions are not "equal" all of the time. Finally, the relativist can be encouraged to commit to a point of view and begin to see that commitment will be an ongoing act over a lifetime of certain change. These tasks, then, are adaptable to meet individual student's needs.

Summary and Research Questions

Based on the literature, undergraduate students in
general do not function much beyond dualistic or early
multiplistic levels of development (as described by Perry).
Studies of the cognitive development of baccalaureate
nursing students have shown that upper division students
function at levels that fall far short of where nurse
educators assume students to be, and far too short for the
independent decision making that will be expected of them
as they graduate and begin their practice.

As educators in general, and as nurse educators in
particular, _do_ we challenge students' cognitive growth, or
do we provide so much structure for their learning that
they see it necessary only to memorize information and
perfect technical skills? _Do_ we teach students to think
critically, to analyze and evaluate information? _Do_ we
encourage students to consider diversity, examine it in
relation to themselves, consider the source of their
assumptions, and how they can come to know for themselves
in order to make decisions they can act on?

The use of writing-to-learn has been widely explored
in the education literature over the last two decades.
Writing to facilitate critical thinking and cognitive
development is a more recent area of inquiry. The effect
of cognitive development on writing has been examined, but

the effect of writing on cognitive development (as it relates to the Perry model) has not. A search of nursing education literature on writing-to-learn and writing-to-think yielded eleven articles which, on closer scrutiny, really focused on improving writing skills for transactional (graded) writing, or improving documentation (charting) skills.

The first research question was related to the cognitive development of the students involved in this study:

1. Will this group of students initially demonstrate levels of cognitive development consistent with levels of development demonstrated by upper-division nursing students of similar age and education levels in other studies? (Colucciello, 1986; Frisch, 1987; Valiga, 1983).

The next research question was related to the kinds of writing tasks that seem to be most effective in promoting growth:

2. What kinds of writing tasks provide the cognitive dissonance necessary to facilitate development?

The last research question was related to the overall effectiveness of the challenges and supports provided by various writing tasks on the cognitive development of this group of students:

3. Will this group of junior nursing students demonstrate increases in cognitive development after participation in a

semester long nursing concepts course where writing is used
to promote cognitive development?

Methodology

Site and Participants

The study was carried out on both campuses (Radford and Roanoke) of the School of Nursing, College of Nursing and Health Services, at Radford University. A group of 32 junior students enrolled in N342, Foundations of Nursing (an introductory nursing concepts course), that I taught on the Radford campus was invited to participate in the study and served as the study group. A group of 25 junior nursing students taking the same course on the Roanoke campus, taught by a different faculty member, was invited to participate in the study and served as the control group.

In the end, the study group consisted of 29 of the 32 students registered for the course. One student did not start the course until the second week of classes when the study was already underway; one student did not wish to participate; another student who agreed to participate did not return materials needed for the study. Of the 29 participants, all were females ranging in age from 19 to 38. Twenty-two of the 29 students were 19 to 21 years of age (traditional-age junior students); four were 22 to 30 years of age; and three were in their thirties. Three of the students had already completed a bachelor's degree in another field; one had an associate degree; and three in

the group had attended schools other than Radford, either community colleges or other colleges or universities.

The control group initially consisted of 25 students who agreed to participate in the study, however, only 16 completed the study. Six students dropped out of the program over the semester, and three failed to complete the requirements for participation. Of the 16 students participating, there were 15 females and one male, ranging from 19 to 44 years of age. Eight were 19 to 21 years old (traditional-age students); three were 22 to 30 years old; and three were in their forties. One of these students had completed a bachelor's degree in another field; two had an associate degree; one was a licensed practical nurse; and four had attended institutions of higher education other than Radford University.

Procedures

During the first week of class, students in both groups were invited to participate in the study. Informed consent was obtained and confidentiality of information was assured. Students who agreed to participate in the study were asked to write an essay (see Appendix C, Writing Assignment 1) that was used to assess their cognitive development in relation to the Perry scheme. This essay was photocopied in duplicate and sent to two different raters in the Syracuse Rating Group in Syracuse, New York.

A description of this rating will follow at the end of this section.

Over the semester, students in the study group were asked to complete 13 different writing tasks, related to course content. These writing tasks had been created to provoke cognitive dissonance, to challenge students' perceptions of knowledge, truth, and how one can come to know for oneself. Each assignment was short, and while I responded to each writing, the writing was not used for evaluation; it was not corrected in any way, and did not receive a grade. A variety of assignments were used for the tasks (see Appendix C for a compendium of the tasks, their intent, and the kinds of responses they elicited). Three were microtheme summaries, one was a microtheme theses support theme, and one a counterstatement. Three were freewriting in response to an issue. Five were essays written for inquiry (two of those were the essays used for cognitive assessment). One task was a set of creative responses which students composed in response to client comments and one task was a set of letters which students wrote to peers to evaluate class presentations.

Students in the study group were provided with a three-ring looseleaf notebook to keep their writing in over the course of the semester. They turned their completed writing assignments in to me for review and comments. Students were also encouraged to dialogue with me about

previous entries in ongoing "Write Backs." My reponses were intended to challenge students to think further, and attempts were made to make such challenges appropriate to the student's assessed level of cognitive development. Always, comments that offered support were included.

The class serving as the control group was conducted as it normally has been, without the additional writing-for-cognitive development tasks. Course content covered over the semester was consistent between the two groups.

The last week of the semester, students in both groups were asked to write an essay in response to the same issue they addressed at the beginning of the semester. They were told that while they were being asked to write the same essay, I hoped that they would write it from their present point of view, at this point in their education. Once again, this essay was used to evaluate their level of cognitive development.

Cognitive Development Assessment

Developmental assessments based on Perry's model of cognitive development look for student's cognitive reasoning; how they construct meaning, how they view knowledge, and their perception of how one comes to know. Assessments may be made on the basis of interviews (as Perry did in his original study), writing in response to a

series of questions (Baxter Magolda, 1987), or essay writing in response to a particular question (Hays, 1988).

To provide adequate data to make such an assessment, an essay, "must be on a topic that elicits reasoning and be long and complex enough to contain a sufficient number of socio-cognitive 'cues' or indicators" (Hays, 1988, p.45). The essay question used in this study for cognitive assessment was created in collaboration with Zachary, coordinator of the Syracuse Rating Group (personal communication, July 18, 1989). A pilot study of the essay was carried out with five college students (who were not part of this study) to determine how effective the essay would be in eliciting the data required for a valid Perry assessment. In evaluating a student's cognitive development in relation to the Perry scheme:

> The Syracuse Rating Group draws on cues (about 40
> for each Perry scheme position) dealing with
> overall protocol style, with ways of knowing, ways
> of acting (including reasoning style and
> conceptualization of the self), and ways of
> perceiving and relating to the environment,
> including the social environment of peers,
> authorities, and the general society and culture.
> To pinpoint transitions between levels, evaluators
> assign each essay a three digit rating: a 2-2-3
> rating would indicate a paper primarily at

position 2 of the Perry scheme but showing some
characteristics of position 3 thought (Hays, 1988,
p. 45).

Transcriptions of each of the essays for students in
both the control and study groups, 55 pretest essays in
August, and 46 posttest essays in December, were submitted
to the Syracuse Rating Group. Each essay was given a
quantitative rating by two different raters, with a third
rater's opinion if the first two did not agree. The final
rating was a result of consensus among the raters. Ratings
for students in each group were tabulated, as shown in
Table 1 and and Table 2.

The photocopied essays, were returned to me with the
raters' comments. In addition, raters' individual scores
and consensus ratings were included on an appended tally
sheet.

Table 1

Data for Study Group: Age, Other Educational
Experience, and Pretest and Posttest Assessments

Student	Age	Ed. Exp.	Pretest	Posttest
Diane	20		344	333
Cathy	20		233	233
Bobbi	26	BS	233	233
Cindy	19		233	344
Coreen	24	BS	334	344
Freda	20		233	333
Rita	20		223	333
Barb	21		223	333
Nancy	19		233	344
Marcia	20		223	333
Geri	21		334	334
Jess	20		333	233
Karen	20		223	233
Katie	20		233	233
Anne	20		444	334
Emily	20		334	233
Mary	25	1 yr. coll.	445	455
Pat	31	2 yrs. CC	334	334
Janet	36	BS in Biol.	344	445
Maria	38	2 yrs. coll.	333	333
Rachel	20		334	344
Beth	21		445	344
Jodi	19		222	223
Carmen	20		333	333
Kristin	20		344	344
Arlene	25	AD	334	333
Tammy	20		233	233
Lisa	19		334	233
Paula	20		334	344

Table 2

Data for Control Group: Age, Other Educational
Experience, and Pretest and Posttest Assessments

Student	Age	Ed. Exper.	Pretest	Posttest
St. 1	20		333	333
St. 2	42	BS	445	334
St. 3	20		223	233
St. 4	27	AD	223	233
St. 5	26	AD	233	333
St. 6	20		233	334
St. 7	20		233	333
St. 8	20		333	334
St. 9	21		334	333
St. 10	20		223	333
St. 11	44	LPN	333	334
St. 12	19		223	223
St. 13	25	AS	233	233
St. 14	20		223	334
St. 15	20		223	233
St. 16	42		334	344

Analysis and Results of the Study

Cognitive Development of Participants

The scores on the pretests for all students participating in the study (N=45) ranged from 222 to 445, with the majority falling between positions 223 and 334, as shown in Table 3.

Table 3.

Cognitive Development Position Frequencies for All Participants (N=45) on Pretest

222	223	233	333	334	344	444	445
1	10	11	6	10	3	1	3

A mean score of 2.98 was calculated for the group. Eleven of these juniors were functioning predominately at the dualistic 2 position, with "right/wrong" conceptualizations of knowledge, and the expectation that Authority will provide Truth; the locus of control for knowing and decision making is certainly external to the self at this level. The rest of the students, 34 in all, were found to be operating at the more multiplistic levels of conceptualization, positions 233 to 445. Here diversity

of ideas is recognized. Diversity may be considered either
temporary, until Truth can be discovered, or, at position
4, where it is recognized that there may always be
unknowns. It is important to point out that multiplistic
thinking is still dualistic in nature; that is, perceptions
or opinions are not viewed as contextual, but are thought
of as representing degrees of "rightness or wrongness."
More importantly, Truth rests in Authority, so that locus
of control remains external. So while students at these
multiplistic levels feel they have a right to their own
opinion, they continue to look to Authority for direction
and decision-making. Three of these students, at 445,
seemed to be gaining some sense of the contextual nature of
knowledge, with a concomitant shift to a sense of their own
agency, their own ability to look at the context of
information, make decisions based on that information, and
take action on their own. As Perry (1970) had pointed out,
position 5 is pivotal. This ability to look at the context
of information would seem to be an important ingredient in
decision-making.

These findings are similar for the most part to the
findings of other nurse educators who have studied the
cognitive development of baccalaureate nursing students.
Valiga (1983) found that a sample of 34 junior
baccalaureate nursing students attained a mean position of
2.96, strikingly similar to the mean of 2.98 for the

juniors in this study. Valiga noted that, while a few students in her study approached Perry's position 5 of Relativism, most of the students showed some degree of dualistic thinking.

Frisch (1987) examined the cognitive development of 42 junior nursing students and found that a majority, "were operating at Perry's position 3; some were operating at position 2; and only one of 42 had reached position 4" (p. 27). While the instrument used in that study provided a single digit rating, those 2's would likely be similar to the 222, and 223 ratings described in this study. Similarly, a position 3 would reflect the conceptualization present in 233, 333, and 334 ratings, and position 4 would reflect the 334, 444, and 445 ratings in this study. Frisch (1987) also pointed out that these levels of cognitive development are not peculiar to nursing students, but are fairly consistent with the development of university undergraduate students in general. It has been found that the majority of college students, freshman through senior years rank in positions 2 through 4 (Hadley & Graham, 1987; Kitchener & King, 1981; Knefelkamp & Slepitza, 1978; Stonewater & Daniels, 1983).

Lastly, Colucciello (1986) examined the cognitive development of 140 nursing students at seven midwestern universities. There were 20 juniors included in the study, with positions assessed between 223, 233, and 333. Their

mean position was 2.75, somewhat lower than the students
participating in this study.

Effectiveness of Different Writing Tasks in Provoking Dissonance

Students in the study group were asked to complete 13
writing assignments over the semester in addition to the
two essays they wrote for the Perry assessment. The 13
writings represented seven different kinds of tasks,
including freewrite, microtheme summaries, microtheme
thesis, writing for inquiry, counterstatement, a set of
creative responses to a client, and letters to peers. Each
of the 13 assignments had been created to provoke
dissonance for students in some way; to confront student's
assumptions about truth, their perceptions of the world, or
their perceptions of themselves in their roles as learner
or nurse.

Writing assignments were clearly related to course
content and the writing assignment topic and date it would
be introduced was included on the class schedule (see
Appendix B). However, beyond the fact that the assignment
was related to course content, the writing was intended to
move the student beyond additive thinking. The writing was
not intended to merely add facts to her knowledge base, but
rather to encourage the student to think about her own
assumptions or perceptions related to content. For

example, one of the writing assignments towards the end of the semester related to course content about working with the dying patient and his family. The assigned reading covered content about grief theory as well as those interventions a nurse might use in caring for the patient and family; it was very theoretical information and the nursing skills described very task oriented interventions. The writing assignment was developed to put the student "in the shoes" of this dying patient. It confronted her with the issue of her own mortality and her perceptions about what would be important to someone facing their own death (See Appendix C, Writing Assignment 13). In short, the writing took the student beyond new information to looking at what she thought about working with the dying patient and whether her perceptions matched the reality and demands of nursing practice.

Sometimes the assignments were completed in class. Most often they were distributed in class to be written out of class. The date that journals and the completed assignments were due was announced and journals were collected on that day. Journals were then placed in alphabetical order for review.

It proved useful to read several journals, and particularly to sample readings from students representing different levels of cognitive development before a comprehensive reading and responding session began. This

pre-reading provided a global sense of how the students in general had responded to the assignment. Sometimes responses were found to be generally as expected; at other times the students as a group had responded to some aspect of the assignment in ways not anticipated. Still at other times, a student responded in a unique and unexpected way.

With the completion of the pre-reading, each student's writing was read and responded to. My responses to a student were made in relation to that particular student's level of development. Both supportive and challenging kinds of responses were included. For example, for a student at a 223 position, "praise" was given for offering an opinion, such as, "Interesting idea!" Challenges to that student might include, "In addition to your ideas, can you see other ways it might be done?" Often students were asked to "Write Back," to specific questions or challenges intended to push them futher in their thinking. Each journal was read and responded to in this way. On the average it took seven hours to respond to one set of writings, longer when there were also previous "Write-Backs" to respond to. Journals were then returned to students for the next assignment.

At the end of the semester, students were asked to spend ten minutes freewriting an evaluation of the writing project. I told them that I was interested in what they thought about their own participation in the writing

project and whether or not they thought journals should be used again.

At the end of the semester, journals were collected with the promise that they would be returned. Each student's writing with my responses was removed and photocopied; writings were then collated by assignment.

The initial analysis of each writing assignment was carried out in a four-step process. First a description was written about the way in which an assignment was intended to provoke dissonance. Then student writings were reviewed to discover how the dissonance emerged in what they wrote. A code was developed related to indicators of discomfort and thinking. Next each student's writing with faculty responses was reread and coded. In addition, a student was given a rating for her involvement in that particular assignment; this rating (on a scale from 1 to 5) was meant to indicate to what degree she had let herself become involved in the issue. Finally a summary table was constructed for that particular assignment, with student by indicators of discomfort and cognitive responses displayed (see Appendix C, for a compendium of Writing Assignments, and summary table of analysis and coding for each writing).

When the analysis and coding of all writing assignments had been completed, each kind of writing task was examined for its effectiveness. Where there were two or more writing assignments of a particular kind of task,

freewriting for example, those kinds of writings were compared for similarities of indicators of dissonance and thinking and degree of involvement, as shown in Table 4.

Following is an analysis of each of the kinds of writing tasks.

Freewriting

The kind of writing task that seemed to elicit the most involvement was the freewrite, as shown in Table 4. All three freewriting assignments, numbers 2, 8, and 9, required students to respond within very open and general guidelines. Here students were not responding to someone else's ideas, or to a "weighty" nursing issue; they were exploring what they thought and felt. The directions to them were to put their pen to paper and write, continuously, whatever came to their mind about the subject. A time limit was given, ten minutes for example, and a target audience was suggested; in one instance the students wrote to themselves and in the other two freewrites, the intended audience was me. This task produced very exploratory kinds of responses, where students seemed to examine what they thought and felt. Writing Assignment 8 about their own experience of stress, was written in class. It elicited a sense of being able to "get it off their chest." For some it provided an even more significant releasor. For example, Cindy's mother had

Table 4
Kinds of Writing Task and Writing Responses Elicited

	Responses									Degree Invol					
Tasks	THKG	AFF	OI	AG	DI	OP	EM	LWQ	EW	1	2	3	4	5	0
Freewrite															
APA		x	x							4	5	6	4	9	1
Nursing Roles		x		x				x				2	3	23	1
Stress		x						x					7	22	
Microtheme Summary															
Values	x	x		x	x	x	x	x	x		7	3	4	11	4
Health-Belief	x	x		x	x	x		x				8	7	12	2
Death	x	x		x		x						1	15	11	2
Writing for Inquiry															
Therapeutic Rel.	x					x	x	x			4	13	9	3	
Documentation	x		x	x		x		x			3	19	10	7	
Sexuality	x					x		x			1	3	9	6	16
Counterstatement															
Family	x		x			x				1	7	8	12	1	
Microtheme Thesis Client/Patient	x		x				x	x		1	2	13	13		
Creative Communication	x		x	x	x					3	4	7	8	5	2
Letters to Peers	x			x	x					1	7	9	3	9	

THKG   Thinking of other ways it could be done
AFF   Strong affective response
OI   Own ideas expressed
AG   Issue of agency addressed
DI   Diversity of ideas explored
OP   Other's perspective considered
EM   Empathy addressed
LWQ   Leaves with questions
EW   Exploratory Writing
Degree of involvement in writing (scale from 1 to 5; 0 = not done)

died two years earlier. Cindy came into upper division and the semester still working through that experience, and had written about it in her journal assignment on family. In this entry about stress she was able to say, "Also I feel scared because someday I am going to have to watch a patient die just like my Mom and I'm scared it will bring back some memories. I guess I'll have to learn to live with that though." This student, who moved from a Perry position 233 to a 334 over the semester, wrote in her evaluation essay, "The assignments given made me stop and think about how I felt about alot of things. As far as the personal entries, even though there weren't alot, the ones I did write made me feel like it was a relief to write it down...I guess I just felt like the things I couldn't talk about or had said so many times, I could write it down and it would make me feel better!" Did the "saying" allow her to move on?

Another example of the exploratory nature of the freewrite about stress came from Katie. She had written about how all the readings, papers and tests stressed her, how she was confused about whether or not she really wanted to be a nurse, and then wrote, "Oh yea, I forgot about apprehensive and scared. Scared to try out the things we do in labs and applying them to real/clinical situations. These two situations are totally different. People's lives

are in my hands and this is what scares the hell out of me."

The freewrite on the students' own functioning in the role of nurse for Assignment 9, was written at the end of the semester and also elicited very exploratory responses. The students' writings were full of "I's" as they examined their beginning clinical experiences and looked at the meaning of those experiences in terms of their developing self as nurse. Mary wrote, "My client was very depressed that morning when I first saw her. By the end of clinical she was telling me jokes and laughing with me. I know she felt much better if only for a little while. This was the first time I felt that I did something for a client that no one else could do." Arlene examined her growing belief that she could, in fact, function in this role. "I've always felt I had the heart for nursing, but I've often wondered if I have the stomach...I had to keep track of I & O [intake and output] for the first time. That's not really 'nasty;' I guess it's just the thought of handling 'pee.' The bigger adventure was cleansing her dentures...but I survived...I guess it may sound sort of funny that this was an accomplishment--but I have a not so strong stomach and--well--it is an important accomplishment to me."

The issue of agency was addressed quite specifically with this freewrite about themselves in their new role as

nurse. For Mary, it was a concern about not being able to do enough yet, of wanting to walk before she crawled; "I enjoyed...clinicals but there was always someone around with so many more capabilities. I spent clinical feeling inadequate by comparison and wondering how I was ever going to fill the gap. I know this will gradually disappear as I develop a level of competency even though I will never know everything pertinent to patient care." Pat (a foreign student), on the other hand, looked with humor at how her skills had grown over the semester; "I remember for the first day of clinical I was so worry about taking blood pressure. Which now is funny. When I compare the beginning of clinical with now it make me to feel that really I learned some skills and I will learn more later on." Emily described a growing sense of ability to do. She was assigned some of her aging practicum in an adult day care center, and had responsibility for planning and leading the activities for one morning. "I felt I was most successful on that day because I was very confident and at ease because I knew what needed to be done."

Perhaps the most important issue of these freewritings is that the student had the opportunity to put her thoughts on paper, where she could actually see what she thought. She had the opportunity to <u>see</u> that she, in fact, had grown and was capable of doing. For these writings representing a student's growing sense of agency, my responses, both

challenging and supportive related to that issue. For example, for Emily, it was for taking her responsibility seriously; "Sounds as if your success came out of a thorough assessment of this group of elder's interests, and good decision making about what activities they would enjoy. You've grown so much in your ability to do over the semester!"

Microtheme Summary Writing

Microtheme summary writings, as a group, also elicited much involvement, as shown in Table 4. But the provocations presented by these assignments and the resulting responses were very different from the freewrites. The assignments were intended to provoke more dissonance. Here the student was asked to accurately summarize an article that she had read as part of the assignment. The articles to be summarized had been specifically chosen because they presented points of view that were suspected of being uncomfortable for students. In addition, each article was intended to arouse some emotion. Writing Assignment 10, about values clarification, was intended to provoke frustration regarding the lack of client compliance with prescribed health care measures. Writing Assignment 11 addressed influences on health care practices of clients, and was intended to stimulate anger at the failure of the health

care system to address noncompliance (a patient ended up with amputation of both legs when he failed to follow the suggestions of the nurse and physician). Writing Assignment 13 dealt with the issue of death, and was designed to arouse a variety of emotions in its inclusion of a poem by a student nurse who was herself facing death.

As can be seen on the analysis worksheets for these assignments, students had varying degrees of success in accurately summarizing the author's perspective. Where students did accurately describe the article, support was given; inaccuracy was challenged by my response, such as "Is your own opinion interfering here? Look a little harder at what the author is trying to say."

Students for the most part felt free to admit the affective reaction they had to the situation presented. Anne, at a Perry position 444, responded to the situation of the double amputation with, "I am enraged that it had to happen, yet I feel that the nurse did everything she thought she could do...If I had been the nurse, I think I would have tried to explain the possible outcomes of his illness." Anne continued at length about other ways she would have attempted to intervene. Not only did she demonstrate affect (anger), but she was provoked to think about a variety of alternative actions that could have been taken. She was addressing her own sense of agency, the things she would have done in the situation. In contrast

to Anne, Beth, at a 222 position, wrote nothing about her affective response, and simply concluded, "If a patient cannot do what they need to do to insure their health, then they are responsible for what goes wrong." My response challenged her to try and think about the situation in other ways; "Were there any unanswered issues here for you? Do you think Mr. H. had all the information he needed to make informed choices? Might you have done anything differently?" In the end, Beth chose not to, or could not, write back.

Of all of the writing assignments besides two of the freewrites, the writing about caring for a client facing death elicited the most involvement, as shown on Table 4. This assignment confronted the students with their own mortality, and challenged them to think about how they would handle that first experience of caring for someone facing death. The assignment provoked a variety of responses. Bobbi honestly described the fear of most students; "I'd be afraid I might say the wrong thing--I think I might be a good listener, but I wouldn't have any answers." After reading the poem, Bobbi was able to look at the situation from another, more empathetic, perspective. "I think she said alot about my silence...she is trying to say that we should be able to show our feelings." Nancy's writing demonstrated ambivalence that revealed the dissonance aroused within her. In considering

caring for this young woman, she wrote, " In that mirror image, I would be faced with my own immortality [sic];" later in that entry, "It is silly to be afraid of something that is definitely going to happen like death." The most poignant writing came from Marcia, who also clearly expressed the dissonance aroused in her. She wrote that she was afraid to get involved and said, "I feel this way because I'm very afraid of dying and I don't feel I am ready to die anytime soon."

An important theme that appeared in the microtheme summaries was that often students left their writing with questions they had raised for themselves, but had yet to answer. Cathy, at a position 233, wrote in response to Writing Assignment 10, Values Clarification, "It's hard to avoid being judgemental. I'll have to find a way to accept that other people don't share my values and beliefs. It's hard to remember sometimes that everyone is different. Some issues would be very frustrating for me to deal with. I hope it will come with time." This appeared to be a classic dualistic response from a student stuggling to deal with the pluralistic world she found herself in. Mary wrote about a practical concern that seemed to leave her in a quandry. "Working to help clients explore their values seems like it would be a very time consuming task. While I feel like it would be important, how do you make time?"

Marcia left Writing Assignment 10 with a question about death that she will probably only begin to answer after some time in practice, but at least she had given it voice for herself now, as a student. "I'm afraid I might get too emotional. I know they say to care, but not to get too emotionally involved. But how do you care for someone, sometimes for weeks, and share some of their most important and intimate feelings and not get emotionally involved?" My comments attempted to address the myth that nurses should not get emotionally involved. Support and gentle challenge included, "Might you leave the situation taking something with you because you allowed yourself to care--to share with her what she was going through?"

Writing for Inquiry

Students had evidenced much thinking in their writings for the microtheme summaries, and that thinking was stimulated by someone else's ideas. As shown on Table 4, the three writing for inquiry assignments also elicited evidence of thinking, of making connections and exploring ideas. But here the assignments asked students to address very specific issues and, in two cases, to take a stand on the issue and support their point of view. In Writing Assignment 4, about therapeutic relationships, and Writing Assignment 7, concerning documentation, content from the course was utilized, but the writings presented clinical

scenarios that encouraged students to reach beyond content. The scenarios challenged the students to see a variety of problems in each situation. Dissonance was provoked in that answers were not clear or easy. In addition, the scenarios confronted personal values and assumptions about practice. In fact, the situations were "lifelike!"

Writing Assignment 4, Therapeutic Relationships, dealt with nurse-client relationships. Students typically struggle with the goal-oriented, or intentional nature of that relationship. They try to define what it means to be "professional" in their interactions with clients in very concrete ways, with lists of "shoulds" and "should not's." The challenge in this writing was to understand the difference between a friend-friend relationship and a nurse-client relationship. First, students were asked to pose three questions they would have in assuming the care of a young man, Jake, suffering trauma from an auto accident caused by his driving under the influence. To complicate the picture and to further provoke dissonance, Jake was to be an acquaintance of theirs. After students wrote the three questions in their journals, I responded with individualized challenges to each student to answer some of her own questions.

Anger, either overt or covert, was a theme that appeared in most of the writings; if it was overt, students were challenged to deal with it. If anger was covert,

students were challenged to recognize it, to give it voice, so that they could deal with it. Interestingly, students who were at dualistic levels of development were less likely to admit to anger openly in their initial writing; with encouragement, they could address it. Students at multiplistic levels seemed to be more comfortable with their feelings and were more likely to write about them in their initial questions. Anne, for instance, at a Perry position 444, wrote, "Would I be able to keep my feelings of anger and disapproval to myself? Can I be compassionate to his [Jake's] needs? What would I want of a...caregiver if I was in his predicament? Would I want 'me' to care for myself?" To herself she replied, "I would want someone to treat me in an objective way and not judge me or hold me reponsible for any mistakes I'd made. I would want 'me' to care for me--I think I could be objective." Another student, Rita, at a 223 position, needed permission to express her anger and then to explore how her feelings could impede her care of this client. Among her initial questions, she asked herself, "How do I feel about what Jake has done?" My support came in the form of, "Good question--and probably one of the first things that might come to mind as you got your assignment." The challenge came as, "First answer for yourself, how do you feel? And how do those feelings affect your response to caring for Jake?" Rita was then able to write clearly for herself, "I

feel _angry_ at what Jake has done...These feelings could cause me to be hostile towards him."

The interactive nature of the writing between the student and myself was most apparent in this assignment as all students were asked to write back answers to the questions they first posed. Diane took this one step further. In addressing the issue of therapeutic versus friend relationships, she had asked herself if she would be able to treat Jake like "any other patient." My challenge to her in her Write Back was, "What will you bring to this interaction that will make this relationship "professional" versus "friend"? Diane wrote back at length about things she would and would not do, and then she wrote, "This is a tough one to answer. I'm not sure if there really is an answer?? What do you think?"

The documentation assignment also required students to identify some issues that they then were asked to address. The controversy in this assignment involved the issue of nurse negligence arising from inaccurate reporting and recording of information to other members of the health team. The emotion evoked in the majority of students was fear, or at least concern as they recognized how easily they could make errors in this area of practice. One of the most astounding entries came from Mary. She relayed in detail her knowledge of a young child who died as the result of a failure in communication between nurses at

shift change. After a page of this writing, detailing what had happened to this child, she wrote, "She was resusitated but died 12 hours later from complications of hypoxia. This was my child. She was 3...I am very much aware that I will be at risk to be sued as well as anyone else in my class. My only protection will be good communication with the client, the client's family, and with members of the health team." This was one of the hardest entries for me to respond to over the semester. Clearly support was needed. Mary had taken the opportunity to explore in depth what she brought to her education. The challenge here was to me, to attempt to formulate the most sensitive support. In the end, it came out of the honesty in communication that we try to teach our students: "Mary, I simply don't know how to respond. How tragic--and apparently because some simple, easy, information was not communicated. You will go through this curriculum with a very different perspective than your peers. That might be hard at times. As faculty, we often know so little about the students we're working with and I'm sure, unintentionally, put them into situations that hurt. Let faculty know, when appropriate. Even if we can't change an assignment, we'll better understand your response."

The last writing for inquiry was the assignment on sexuality. The students did this writing in class before class discussion began. Students were asked to identify a

sexual practice or health problem that would be the most challenging for them to be confronted with in clinical practice. Having identified that, they were then asked to describe in what three ways a client with this sexual practice or health problem would be most like them. They then wrote about three things they would be most curious about in relation to this sex-related problem or practice. Their written responses were consistent with the discomfort apparent in their verbal responses in class when they were given the assignment. Their assumptions were confronted as they tried to deal with how this client could, in any way, be like them. Dissonance revealed itself in several ways in the writing. Some students could only come up with one or two similarities between themselves and the person they had identified. Janet wrote, "I think that I would have the most difficulty talking with a person who had sexual problems related to homosexuality. I have to say I'm really drawing a blank with this...The person would be most like me in that they seek help when they have questions...," and that was the only similarity that she could think of.

Other students were very thoughtful about their responses. The very real present day concern with AIDS came up in many of the writings. Several students were able to describe similarities between themselves and a person with AIDS, but what they were curious about

revealed their real discomfort with that clinical situation. Katie identified the homosexual with AIDS as the most challenging problem, and the three similarities as, "1) a person; 2) has feelings; 3) likes to be healthy/well." Her three questions were, "1) Have you practiced [homosexuality] all your life? 2) Would you have changed if you knew this was going to be the outcome? 3) Would you inflict this disease on anyone else?"

The most telling indicator of the dissonance that this assignment provoked was that 16 students failed to include this entry in their journal. As shown in Table 4, this was atypical of their responses to all of the other writing assignments.

Microtheme Thesis

One writing, Writing Assignment 6, related to nursing process, belonged in this category of tasks. In talking about nursing practice, the recipient of care is sometimes referred to as "client," and at other times as "patient." In fact, I had purposely used both terms in class discussions. Students were asked to write about the difference, if any between those two terms, and their own use of them. The challenge here was to look at the context of their opinions and to take a stand. The responses turned out be exploratory in nature as the students attempted to sort out the connotations of each term.

Janet, who moved from a Perry position 334 to a 445 over the semester, pushed at the edges of relativistic thinking in her writing for this assignment. She wrote, "Client at first seemed cold and removed to me but after several weeks, I now think of it as being more involved with your own care...in having a say...Patient now seems to be less involved--receptive--what is the word...as a patient you sat back and meekly did what you were told, did not ask questions and certainly did not seek alternatives. ...I am still trying to think of the word I want--is it passive? I think that is almost it."

Freda, on the other hand, who operated at much more dualistic levels, wrote, "I personally prefer the use of the word patient because it gives a more caring approach. It makes me feel like I am taking care of someone and that they need my help...People are usually not educated to know what is wrong with them so they need someone to give them guidance. Unfortunately, today many people think of themselves more as clients than as patients. They 'shop' around for the best answer...As a patient is more in the hands of the professional." I found this kind of writing the most difficult to respond to because it was hard to formulate a supportive response. Challenges were clearer, but effort was needed to make them constructive. Freda's writings were frequently anger provoking for me because they were so far removed from the philosophy of nursing our

program is based on and the philosophy that I am committed to. But her writing also clearly represented her cognitive development. She simply had not gotten beyond traditional answers. She could not think about the possibility of multiple ways of looking at an issue, not to mention the context of perceptions.

Counterstatement

One of the first writing assignments in the semester, Writing 3, related to the conceptual framework of the nursing program at Radford University. The concept of family is addressed in the framework, and students were asked to freewrite about what family meant to them. They were then to write a definition of family and describe problems that might occur in the clinical setting by mismatched definitions. The challenge was to consider the fact that there may be more than one definition, more than one point of view about who family might include, and that context affects how one describes family.

Their definitions were surprisingly open. One of the most traditional responses came from Freda who saw family as, "those you are raised with. Those that know everything about you...a never ending support system." She was not able to consider any other definition, and she did she not offer any problems related to mismatched definitions. In general, she either could not, or did not, involve herself

in the assignment. Lisa wrote extensively as she explored the issue. "Family can have alot of meanings. In fact it is very hard to define exactly what family means to me." She then explored similarities between her traditional family and her friends, including the support they offer. While she never did cite problems related to mismatched definitions, she did feel that, "it is important that we deal with the family...because they too hurt as does the patient and are also scared...By caring for the patient's family, we are caring for the patient." This was a multiplist's response from a student who still had difficulty thinking about context.

A writing that clearly demonstrated movement in more relativist directions came from Mary, who could examine context. "A family is a collection of people who have or intend to share a long term close relationship...[family] functions to help each individual within meet their physical and emotional needs...[a document] does not make a family in any other than a legal sense. Families existed long before laws were created...I feel this definition would apply to the traditional family (mom, dad, 2.2 kids) as well as unrelated people living together." And then she explored her thinking with, "I wonder if it is applicable to the homeless. Those who are living day to day would not measure their family of streetpeople against time." Here she is not quite ready to take a stand, or commit to her

definition. Mary was then able to discuss a problem this definition would create in the health care setting. "I doubt an individual would be able to sign a surgical consent for another person unless...theirs was a legally documented relationship."

Even with encouragement in the form of challenges to Write Back for this assignment, students did not seem inclined to push beyond present thinking. They either chose not to write back, or provided more of the same kind of thinking in what they did write. Freda and Lisa chose not to write back, and I failed to provide a further challenge to Mary in the form of a Write Back. In retrospect, an appropriate challenge to Mary, at her level of thinking, would have been one that would have encouraged her to take a stand. Perhaps a response that would have stimulated her to extend her thinking even further would have been, "How would you use your more open definition in a clinical situation where the traditional definition is what counts?"

Creative Communication

For Writing Assignment 5, concerning communication skills, students were provided with a transcription of an interview between a "real" nurse and an elderly woman. The student's task was to identify the communication technique the nurse used, and then to either state the purpose of

that technique, or to insert her own revision and its purpose. Students were asked to include at least five revisions of their own.

The thrust of our class discussion had concerned the difference between closed and open interviewing techniques. Direct questions are easy for nurses to ask, but they make it harder to "hear" what the client is saying. The interviewer ends up asking questions that elicit what she thinks the client should say. Open techniques encourage exploration and the client has a better opportunity to voice his real concerns. For students at predominately dualistic levels of thinking, the challenge in this assignment was to be less directive, to look for someone else's point of view. The challenge to multiplists was to see the possibility of their own meaningful communication as they revised what a "real" nurse said.

As shown in the analysis of the assignment, dissonance appeared in their responses in terms of the number of revisions they were able to make (on the first try), and the kinds of techniques they used, open versus closed. Rachel, with developing cognitive skills, at a 334 position, was a student who was able to produce the required five revisions; her revisions employed open techniques, and she was able to state their purpose. Mary was able to go beyond the required five as she supplied six very open revisions. Barb, at a 223 position, could only

come up with three revisions on her initial try with one more on her write back, but three out of those four revisions were closed techniques. Rita, also at a 223 position, was able to make five revisions of what the "real" nurse had already said, but four of those were closed techniques. Some students could not come up with any revisions at all, even when asked to try again on a write back.

Letters to Peers

The last writing assignment for their journal consisted of a series of letters that each student wrote to peers. The students were presenting group teaching projects in class that provided them with the opportunity to practice some of the content they had learned regarding health teaching. Each student was asked to write an evaluation letter to her peers for each of the four projects she was not participating in. The letter required the student to identify both strengths of the teaching presentation, as well as other ways the project may have been done. In other words, the student was being asked to see that there was "more than one way." The student was also asked to sign the evaluation, to "commit" herself to the opinion she expressed.

The majority of students did write all four of the evaluation letters, though a few entered only two or three.

But even when four letters were written, many were not complete. Interestingly, the areas most often left blank were the areas where the student was asked to think "of another way" the teaching could have been done. Rita, who began the semester at a Perry position 223 and moved to a 333, wrote thoughtful, complete, and decisive evaluations. For example, in her evaluation of a project on AIDS, Rita (quite accurately) suggested to her classmates involved in the presentation, "1. Look at the audience more 2. Emphasize more on preventions 3. Talk more about tests to confirm AIDS. Instead of overheads, maybe use posters." Arlene, on the other hand, who seemed to be less sure of "where she was headed" (she moved from a 334 to a 333 position), did not indicate anything she would do differently for the same presentation. All students did sign all of their evaluation letters.

Statistical Evaluation of Cognitive Development

A non-equivalent control group design was utilized to answer the research question, "Would the study group demonstrate an increase in cognitive development after participation in a semester long nursing course where writing was used to promote cognitive development?"

After the posttest ratings were received from the Syracuse Rating Group, each student's ratings were tabulated. In order to make analysis more straightforward,

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student positions were summed from the 3 digit position to an integral number. For example, a 223 became a 7, and a 233 became an 8. Then two analyses were conducted. First an independent t-test was used to examine differences between means of the two groups on the pretest essay. A probability of .3438 required acceptance of the null hypothesis, suggesting that there was no significant difference in cognitive development between the groups at the beginning of the semester.

Next, an analysis of covariance was used to examine differences between the two groups on the posttest, using the pretest to control for original variance between the two groups. The ANCOVA produced an F value less than 1, suggesting that there was no statistically significant difference in cognitive development between the two groups at the end of the semester.

Discussion and Conclusions

<u>Statistical Outcomes</u>

Clearly there was a lack of statistical evidence to indicate that the writing done by the students in the study group had, in any way, facilitated cognitive development. That issue needs to be addressed in several ways. First, other researchers have found it difficult to facilitate statistically significant change in the cognitive development of a group of students in an academic year, much less a semester (Stonewater & Daniels, 1983). Two questions follow quickly on the heels of that issue. One, was the treatment, the writing itself, potent enough to affect measurable change in every student? The second question to be considered is, whether it is realistic to suggest that students can and should, in one semester, make the rapid kind of cognitive growth that would be required to produce statistically significant results.

In examining the latter question first, as Perry himself pointed out (1981), the process of cognitive development is difficult and, in very real ways, painful for students. It requires a letting go of present, comfortable ways of knowing. For the dualist, it means giving up the firm belief in absolute truths, and for the multiplist, surrendering the belief in the possibility of absolute truth. Growth also requires giving up the notion

of an Authority to provide answers, and the growing acceptance of one's own responsibility to discover answers that appear true, for the moment. The "safety net" of Authority, of someone else, to make decisions for the self disappears forever.

Perhaps students require time at each level of development to explore and experience the full meaning of cognition that occurs there. A multiplist may need, for example, to explore the ramifications of what it means to hold an opinion, and then to not only put forth that opinion, but to formulate reasonable rationale for it. And then perhaps it may take time and multiple experiences to recognize that any rationale is context bound, that perceptions, views and opinions, occur from the "eyes" of the beholder. The amount of time is required for a student to make those leaps in cognition would seem to be very individual, and would depend on many factors in her environment. As educators, we can probably only begin to guess at a few, like the stimulus, the safety of the environment she was operating in, and her own past experiences with her development.

The apparent "backward" movement of some students in this study was noted. Zachary (personal communication, February 26, 1990) pointed out that students spend time in transition; they travel back and forth between smaller increments of a position, from a 233 to a 334 position,

back to a 333, as they encounter discomfort in their environment. In the face of perceived threat, they may retreat to safer, more familiar ground, before they venture in a forward direction again. Where one "catches" them at any point in assessment represents where they are for that moment.

In any event, it is probably unrealistic to think that as an educator, one should, or even could, hasten a student's cognitive development in a single course. The real issue here is that cognitive development cannot be the goal for a course, but should be recognized as an outcome of higher education; as a desired outcome, cognitive development must be a thread that is woven through the entire curriculum.

The first question then, whether writing was a potent enough treatment to facilitate development was, for me, not answered by the statistical analysis but by the students themselves in what they wrote. The searching revealed in their journal writings over the semester, and their own evaluation of the effect the writing had on them, provided more useful data for me about the effectiveness of writing in facilitating cognitive development. Therefore, some comments about the writing seem appropriate.

The Writing Itself

One of the most fascinating features of the students' writing was how, over and over again, the writing itself so clearly indicated where a student was in terms of her cognitive development. As Hays (1988) had also found in her studies, the students' writing gave them away. Perhaps it should not be a surprise. After all, Perry's original model was based on students' verbal responses about how they saw the world around them (Perry, 1970). In this study, the student was writing about how she saw the world. As described in the analysis, a dualistic student expressed herself in dualistic ways; it was all she was capable of. A multiplist could describe broader perceptions.

The implications here for the educator are several. As Hays (1983) also pointed out, we "grade" students' papers on the ideas they present, the rationale they use, and how broad their perceptions are when perhaps their present level of cognitive development will simply not let them demonstrate more advanced thinking. It would seem that rather than evaluating in the summative sense, our evaluation should be formative, recognizing where a particular student is at the present, in order to provide the appropriate challenge for further development. A closely linked issue is that it is very easy to respond negatively to the student who demonstrates a "narrow" point of view. It is easier to respond positively to the student

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who attempts to ground her thoughts and opinions in some rationale. And it is far easier to respond to the student who pulls the educator into her examination of context as she commits herself to a direction. As faculty, we need to be wary of initial, impulsive, negative responses. We may need to wait, in order to gestate the kind of constructive comment that does not discourage a student for her present ways of thinking, but supports and nourishes growth and allows it safe passage to higher ground.

As the analysis revealed, the different kinds of writing tasks used in this project provoked a variety of cognitive responses. That variety seemed important because cognitive development does not proceed out of one kind of thinking. It is not a linear progression of increasingly complex levels of thinking, but represents structural change in the way in which a student perceives knowledge, and knowing (Perry, 1970). Development requires an examination of one's assumptions, and how one comes to know. It has an affective component as well as an informational component. Perhaps it is the variety of provocations, and resultant responses, the poking at cognition from different angles, that will encourage growth. If, in fact, growth represents changes in how a student perceives knowledge, the ability to know, and her own involvement in knowing, provocation needs to occur in different ways. The students themselves described the

variety of responses they had to the writing. For me, in drawing conclusions about the outcomes of this study, the student's comments have been influential.

Some students addressed the "thinking" they did in their writing in very global ways. Diane wrote, "I enjoyed having the opportunity to write...it made me feel...very free to open my mind and think." Cathy, in comparing the too usual class requirements of simply commiting information to memory, declared, "Creativity is important. THINKING is important. It has to start somewhere and these journals were the best place I can think of."

Some students went on to describe how the writing allowed them to discover what they actually thought. Coreen wrote, "The writing assignments really made me think and sometimes I was surprised at my comments." Barb made a similar comment with, "The journal lets me see [read] how I think." Writing-across-the-curriculum advocates have described writing as a vehicle for allowing the learner to see what she knows about a topic (Emig, 1977; Glatthorn, 1985). What the students seem to be describing here is "getting a handle" on their thoughts, their perceptions or opinions. In the process of extending thinking, the student must first have some sense of what she thinks, what her assumptions about the particular issue are. Then, as she is challenged, as she feels dissonance, she has the opportunity to write exploratively, to question, as the

students seemed to do in response to some of these assignments. Anne wrote, "I really found it interesting to dig inside my mind about issues...I found out alot about myself...using the journal gave us more awareness of ourselves and about our values...we got the opportunity to think for ourselves." Mary wrote that she extended her thinking, via the writing, from simply finding out about what she thought at the present, to what might be different. "Writing really gave me a chance to explore how I feel...the feedback you gave sometimes pushed me to see another view of a subject/controversy and I feel this helped broaden my mind."

The issue of faculty response, and the effect of faculty-student interaction in the journals was also addressed in the student evaluations. Arlene wrote, "There were no right or wrong answers which makes people think more I believe. This may allow investigation of one's perspective." Emily wrote, "I enjoyed getting feedback to my writing, too. I liked hearing what you had to say about what I had written and sometimes offering direction for further thought." And, finally, Rachel wrote, "It felt really good to let my feelings out on paper and communicate them to someone who would not be judgemental but rather challenge me to think in new ways...my mind was able to be stretched a little--in a good way. I didn't feel threatened in anyway. At times, I may feel at a loss for

words in describing how I may 'feel' or understand. This too was a challenge, to articulate my thoughts on paper."

One of the most surprising themes that turned up in the student evaluations was the "language" of Perry and cognitive development itself. While the writing was intended to challenge students to think in new ways, it was not expected that they would describe the development that I saw (and perhaps even they saw) occurring within them so clearly. Rachel's writing above is an example of that. Nancy wrote about a developing multiplistic way of knowing. "My mind is more diverse in its thinking...I always knew there was another side of the fence, but I never consciously thought about it before." Janet said the writing, "made me think in a more personal way than any book would have and without a lot of pressure...how differently we all approach things...I found that there were other ways to look at things, or after reading your comments, I also found that I had alot of set ideas that may have to change and most likely will."

The actual participation of the students in the project itself was evidence that they saw writing as worthwhile. The kinds of responses to the assignments and the thinking demonstrated suggests that the writing was useful in promoting cognitive development. The student's evaluations of their participation in the writing would

suggest continuing use of the journals. But two questions are important here.

First of all, is this kind of interaction with students realistic in terms of time and effort, on the part of both faculty and students? In many ways, writing is an economical means of interacting with each student in a very individualized way. It would take far more time to meet with each student on a one-to-one basis. Far more verbal energy would be necessary to arrive at the exchange of ideas that takes place through the use of a few, but richly written, phrases. It is doubtful that many students would share, either with themselves or with their teacher, what they might be willing to write. Their writing allowed me to get to know each student in a different way than any other group I have worked with. The writing gave me a clearer picture of their thinking, and it gave me a better sense of the kinds of concerns they brought to their beginning nursing practice. Most importantly, it provided me with the cues I needed to challenge them to grow.

I don't think there is any easy way out in terms of the amount of time writing-for-cognitive development requires. It would seem necessary to have regular entries in the journal. The almost weekly assignment had the effect of an ongoing dialogue between student and teacher. The dialogue did not get "forgotten," and because it was attended to, both the writing and what was written was seen

as important. The logistics of transporting the 29 three-ring, loose-leaf journals around was difficult for me. Perhaps a whole journal, or notebook, does not need to be turned in in its entirety. The present writing, ongoing write-backs as well as new assignments, could be turned in alone for reading and response by faculty.

A second, more important issue in terms of practicality, is whether faculty can effectively engage in this kind of teaching without an assessment of each student's level of development. One nurse educator (Colucciello, personal communication, February 9, 1990) reports that she does a formal assessment of the cognitive development of all of her students to guide her in her work with them. Doubtless, the assessments in this study were extremely helpful in beginning to know how to respond to the students. But as noted earlier, the students revealed their level of development through their writing. An assessment could certainly be confirming evidence, but in using writing as the facilitator of cognitive development, the writing itself can provide the information needed to create appropriate supports and challenges for a particular student.

And lastly, what about the whole issue of the assessed level of development of this group of junior nursing students? I share in Frisch's (1987) concern that as nurse educators we are not producing practitioners who have the

cognitive ability to, "consider events from multiple points of view and make independent judgements based on an assessment of the complexities of each situation" (p. 27). Nursing practice is both collaborative and independent, but it is never dependent; there is never a time when a nurse can abdicate decision-making to an authority, and not take responsibility for her actions. To be sure, we are producing a beginning practitioner, a nurse who has only begun to develop her knowledge base and technical skills. But the point is, while she can afford to take time to add content to what she already knows, and perfect technical skills, she must be able to operate with an inner sense of direction, with a sense of agency. She must be able to look at complex situations from a variety of perspectives, and make decisons based on her consideration, decisions that come from within.

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APPENDIX A

Perry's Scheme of Cognitive Developmen

PERRY'S SCHEME OF COGNITIVE DEVELOPMENT

Position 1   Authorities know, and if we work hard...and learn Right Answers, all will be well.

Transition   But what about the Others I hear about? And different opinions?...Some of our Authorities disagree with each other or don't seem to know, and some give us problems instead of Answers.

Position 2   True Authorities must be Right, the others are frauds. We remain Right. Others must be different and Wrong. Good Authories give us problems so we can learn to find the Right Answer by our own independent thought.

Transition   But even Good Authorities admit they don't know all the answers yet!

Position 3   Then some uncertainties and different opinions are real and legitimate temporarily, even for Authorities. They're working on them to get to the truth.

Transition   But there are so many things they don't know the Answers to! And they won't for a long time.

Position 4a   Where Authorities don't know the Right Answers, everyone has a right to his own opinion; no one is wrong!

Transition (and/or)   But some of my friends ask me to support my opinions with facts and reasons.

Transition   Then what right have They to grade us? About what?

Position 4b   In certain courses Authorities are not asking for the Right Answer; They want us to think about things in a certain way, supporting opinion with data. That's what they grade us on.

Transition   But this "way" seems to work in most courses, and even outside them.

Position 5   Then all thinking must be like this, even for Them. Everything is relative but not equally valid. You have to understand how each context works. Theories are not Truth but metaphors to interpret data with. You have to think about your thinking.

Transition   But if everything is relative, am I relative too? How can I know I'm making the Right Choice?

Position 6	I see I'm going to have to make my own decisions in an uncertain world with no one to tell me I'm Right.
Transition	I'm lost if I don't. When I decide on my career (or marriage or values) everything will straighten out.
Position 7	Well, I've made my first Commitment!
Transition	Why didn't that settle everything?
Position 8	I've made several commitments. I've got to balance them—how many, how deep? How certain, how tentative?
Transition	Things are getting contradictory. I can't make logical sense out of life's dilemmas.
Position 9	This is how life will be. I must be wholehearted while tentative, fight for my values yet respect others, believe my deepest values right yet be ready to learn. I see that I shall be retracing this whole journey over and over-but, I hope, more wisely. (Perry, 1981, p. 79).

APPENDIX B

CLASS SCHEDULE AND STUDY GUIDE

CLASS SCHEDULE AND READINGS
Spring 1990: ROA Campus

DATE	TOPIC	ASSIGNED READINGS IN TEXT Olds, London, & Ladewig
1/11	Introduction to Course	
	I. Choice in Childbearing	
	A. Social issues regarding choice	153-61
	B. Review of female reproductive cycle	133-40
	C. Contraception	161-69
1/18	II. Pregnancy Achieved: Nursing Measures to Promote Balance	
	A. Development of fetal-maternal unit	279-94
	B. Pregnancy from a fetal perspective	296-307; 294-96
1/25	C. Pregnancy from a maternal perspective	
	1. Physiologic adaptation	311-323; 373-96
	2. Prenatal Care	338-43; 353-54; 356-59; 363-69
	3. Prenatal Tests	
	a. Prenatal Diagnosis	195-98
	b. Ultrasound	532-39
	c. Amniocentesis	552-54
	d. CVS	558-59
	e. AFP	561-63
	D. Pregancy from a family perspective	323-31
2/1	Test I	
	III. Childbirth - Balance	
	A. Theories of onset	583-84
	B. Essential factors in L & D	117-23; 359-362; 571-86
2/8	C. Mechanisms of Labor	592-93
	D. Stages of labor and nursing interventions	593-604; 586-87; 608; 614-20; 798; 650-70
	E. Immediate care of mother & newborn	673-81; 1003; 898-99
	IV. Family and Newborn Postpartum: Nursing Measures to Promote Balance	
2/15	A. Parent-Infant attachment	844-47; 1129-47
	B. The newborn	
	1. Physiologic adaptation	827-44
2/22	Test II	

APPENDIX C

COMPENDIUM OF WRITING ASSIGNMENTS,
WITH ANALYIS OF RESPONSES AND CODING

HOW TO USE YOUR CONCEPTS JOURNAL

"The very act of writing is an act of thinking. It is good to start writing and watch where the writing takes you; to digress when you're exploring an idea; to witness your thought, visibly on paper, and have a dialogue with it - because that helps you find out what you know, [what you THINK you know!] what your assumptions are, what you don't know, and what you want/need to know."   Toby Fulwiler

Front Section:
This first section is for designated writing projects that we will be doing over the semester. Each week, and sometimes each class, you will be asked to do some writing. The assignments are SHORT, and will NOT BE GRADED. Rather, the writing has been designed to help you think about what you are learning, and how you might use the information in your practice.

Sometimes we will do the writing together in class, and sometimes you will do the writing at home. Almost none of the assignments take more than one side of a sheet of notebook paper.

Sometimes you will be writing to yourself, asking yourself what you think. At times you will be writing to me, or to a classmate, a client, or perhaps a family. In any case, I will ALWAYS read what is in this front section of your journal and I will ALWAYS respond to what you have written. Sometimes I'll even ask you to respond to what I have written to you!; WB means "write back!"

BACK SECTION:
This section is for your own use. You can choose when, what, and how to write in it. And you can choose whether or not to have me read what you have written. Simply attach a note to your journal and indicate the date of the entry you would like me to pay attention to.

Some students will probably use this section more than others. I urge all of you to use it early on, when you are sorting through ideas, or trying to figure out why you are doing some of the things we ask you to do this semester. In other words, you can write about anything here, from this course or another. The point is that you may discover that writing can help you think and/or learn!

Please bring your journal to class each time we meet.

Writing Assignment 1: How I Learn Best

Write an essay, about 600 - 1000 words in length, telling us how you learn best. Some issues that you <u>might</u> want to speak to include the learning process, the teacher's role, your role as a learner, the kind of class "atmosphere" you prefer, the learning environment that is most conducive to your learning, the kinds of assignments that help you learn the most, and the relationship between the student and teacher.

In order to be effective in your description, please write a well-organized essay that is logical and, where appropriate, support your ideas with evidence; that is, be as specific as possible, using examples from your own past experience as a student. Remember, there are no right or wrong answers here. What we are looking for is information that will help us plan the best possible learning experiences for you! You may use as much of this bluebook as you need to in order to complete your essay.

WRITING ASSIGNMENT 2: USING APA FORMAT

REFERENCES:
Please arrange the following three references in correct
format and order, according to the APA Manual.

Book:

   Title: "Health Education for Women: A Guide for
Nurses
              and other Health Professionals"
   Author(s): Vivian M. Littlefield
   Publisher: Appleton Century Crofts in Norwalk, CT
   Date: 1987

Journal Article:

   Title: "Dilemmas in Practice: Too Soon to Give Up?!"
   Journal: "American Journal of Nursing"
   Author(s): Priscilla Scherer and Susan Smith
   Date: March, 1986; Volume 86, Number 3
   Pages: 257-259.

Chapter in an Edited Book:

   Title: "Pain Control in Labor and Delivery"
   Book: "Modalities of Pain Relief: New Thoughts"
   Author(s): Chapter: E. Z. Duzit   Book: Sue Blank
   Publisher: Norton in Los Angeles
   Date: 1989
   Pages: 127-150.

QUOTATIONS:
Please do the following quotation correctly:

In each person's life much of the joy and sorrow revolves
around attachments or affectional relationships - making
them, breaking them, preparing for them, and adjusting to
their loss by death." M. Klaus and J. Kennell, 1983, p. 1.

1. In text following: They stated,

2. In text following: Klaus and Kennel (1983) say..

3. As a block quotation.

4. Paraphrase and cite source.

Freewrite for 5 minutes in your journal about how this
format differs from what you have used in the past.

Analysis of Writing Assignment 2:   Using APA Format

This assignment was designed as an "icebreaker;" it was the first assignment the students were to enter in their journals. One objective for this first writing was for students to see that, in fact, I was not going to correct or grade these writings. The first part of this writing related to content being covered in class. The day the assignment was due, the students worked on that section in groups, in class, correcting each other's work. Each group presented what they had decided were the correct ways to cite references for a final critique by the rest of the class. I was then able to correct any mistakes or misconceptions in class, for the whole class, so that no corrections needed to be made in the journals.

The second part, the freewrite, was then their first real journal entry.

Dissonance Provoked:
1.   For dualists, to see that there could be more than one "correct" way to reference!
2.   For multiplists, to consider differences, and to express a preference

Coding of Writing Assignment 2: Using APA Format

STUDENT	CHAL. TO WRT.		EXPRESS ID/OP			
	LTS	ES	EXOPT	EXID/OP	NR	INV
Diane		X		X	X	3
Cathy	X		X			1
Bobbi		X	X			4
Cindy		X			X	3
Coreen	No entry					
Freda	X				X	1
Rita		X	X	X		4
Barb		X	X	X		4
Nancy	X				X	2
Marcia		X	X			3
Geri		X	X	X		5
Jess		X	X	X		5
Karen		X	X	X		4
Katie		X		X	X	4
Anne		X	X	X		4
Emily		X	X	X		5
Mary		X	X	X		5
Pat		X	X	X		5
Janet		X	X			3
Maria	X		X			2
Rachel		X	X	X		5
Jodi		X	X			3
Beth		X			X	3
Carmen	X					1
Kristin		X		X		2
Arlene		X	X	X		5
Tammy		X	X	X		3
Lisa		X	X	X		5
Paula		X	X			3

CODE

LTS	Little to say
ES	Expresses self
EXOPT	Explores options
EXID/OP	Explores opinions/ideas
NR	Negative reaction
INV	Degree of involvement (1-5)

WRITING ASSIGNMENT 3:   CONCEPTUAL FRAMEWORK

One of the important concepts in the Radford
University School of Nursing's Conceptual Framework is the
concept of "family." Please freewrite for 5 minutes about
what family means to you.

We say that when we are caring for a client, we are
almost always working with, and often caring for, that
client's family. WHO are we talking about when we use the
word family?

On one side of a piece of notebook paper, please
respond to the following and bring it back to the next
class:

Write a definition of FAMILY in which you show the
need to arrive at a definition by using your dialogue
as an example of the problems created by mismatched
definitions. State the context in which your
definition holds and demonstrate your awareness of
contexts in which it might be questionable.

Analysis of Writing Assignment 3: Conceptual Framework

The first part of this assignment asked the student to freewrite about her personal definition of "family." This part of the writing was intended to help the student focus on what assumptions she might come to the practice setting with about "who" might be part of a client's family. Students need to consider that there are multiple definitions of family, and that, in their practice, they will be working with families very different from their own. A client's support systems are extremely important to consider in planning care. This is especially true in today's health care system where, increasingly, clients are being discharged home earlier while they still require care.

Dissonance Provoked:
1. For dualists, to consider that there may be definitions of family different than their own
2. For multiplists, to consider problems inherent in multiple definitions of family

Coding of Writing Assignment 3:   Conceptual Framework

STUDENT	DEFINITION	PROBLEMS	INV	COMMENTS
Diane	OP	INC	2	Superficial
Cathy	OP	INC x 3	2	Superficial
Bobbi	OP	INC	4	Thoughtful
Cindy	CL	DNA	3	Acted pushed
Coreen	OP/CL	INC	4	Looked @ context
Freda	CL	DNA	1	Didn't address
Rita	OP/CL	INC x 2	4	
Barb	OP/CL	DNA	2	
Nancy	OP	DNA	3	With df, not prob
Marcia	CL	INC	3	
Geri	OP	INC x 4	5	Very thoughtful
Jess	CL	INC	3	
Karen	OP	DNA	2	No discussion
Katie	OP	DNA	3	Disc. divorce
Anne	OP	INC x 2	3	Exploratory
Emily	OP	INC	4	WB Thoughtful
Mary	OP	INC x 2	5	
Pat	CL	DNA	3	Described own
Janet	OP/CL	INC	3	Inv./Not provoked
Maria	OP/CL	INC	3	
Rachel	OP/CL	DNA	3	Provoked?
Jodi	CL--OP	INC	3	
Beth	OP	INC	2	Tried, not there
Carmen	OP	INC	4	Involved in wtg!
Kristin	OP	INC x 2	4	Involved in wtg!
Arlene	OP	INC x 2	4	Involved as wrote
Tammy	CL/OP	DNA	2	
Lisa	OP	INC x 2	4	Did not WB
Paula	CL (Text)	INC x 2	4	Thoughtful

CODE

	Definition		Problems
CL	Closed	INC	Included
OP	Open	DNA	Did not include
INV	Degree of Involvement (1-5)		

WRITING ASSIGNMENT 4: THERAPEUTIC RELATIONSHIPS

We have spent some time reading and discussing "therapeutic relationships." Now I'd like you to extend your thinking about how this information affects your practice. There are many ways to look at the following situation you might find yourself in:

Scenario:
You come to the unit one morning and find that you have been assigned to Jake Daniels. He is 21 years old, and he too is a Radford University student, only he is a senior. He was involved in an auto accident two nights ago. He was the driver at fault, DUI. He has multiple contusions, a fractured left wrist, and a fractured left femur. The passenger in the other car is in the neuro-intensive care unit at Roanoke Memorial Hospital, and is not expected to live. You knew Jake, though not very well, as he had graduated from the same high school you did, only a year earlier.
Your instructor has made the assignment, unaware that you know Jake.

Assignment:
Consider what you have learned about in terms of therapeutic relationships, and how you function in your professional role versus friend or acquaintance role. What questions would you ask of yourself in this situation?

Come to the next class with 3 or 4 questions related to what you might do if you found yourself in this situation. Each question should probe a different aspect of the problem you are faced with.

Analysis of Writing Assignment 4: Therapeutic
Relationships

Dissonance Provoked:

1. Issue of Professional versus Friend relationships:
    This client was an acquaintance/friend, so the
    possibility of having to deal with that issue
    should create discomfort. This is probably not a
    situation they've thought about encountering.
    They had only dealt with what makes a nurse-
    client relationship professional and different
    from a freind relationship. I wanted them to deal
    with the notion of professional relationships
    being goal directed, intentional, versus the more
    spontaneous nature of friend relationships.

2. Issue of how feelings affect our interactions with
    clients:
    This scenario was intended to engender feelings of
    anger towards Jake. I wanted the students to see
    that it's normal and okay to experience those
    feelings. The issue is the recognition of those
    feelings and then the capacity to put them aside so
    they don't interfere with one's objectivity in
    assessment and intervention.

3. Empathy:
    What that really means, especially in the face of
    anger.

Coding of Writing Assignment 4: Therapeutic Relationships

STUDENT	#Q	PVF	QE	ANGER	PVF	AE	ANGER	LWQ	INV
		ORIGINAL QUESTIONS			WRITE BACK				
Diane	4	X	X	AO	X			X	3
Cathy	4		X	AC	X	X	AO!	X	5
Bobbi	4		X!	--	X	X			4
Cindy	4		X	AO			ARC		3
Coreen	4	X		AO	X	X			4
Freda	4				X	X	NA		2
Rita	3		X	AC	X		AO!		3
Barb	5	X	X			X!	AO		4
Nancy	3	X		AC	X				2
Marcia	4	X		AC	X	X			3
Geri	4		X	AO		X		X	4
Jess	3	X				X	NA	X	3
Karen	3	X	X	AC			ARC		2
Katie	4	X	X	AO	X	X!			3
Anne	7	X	X!	AO		X			4
Emily	5	X	X		X		NA		3
Mary	5	X	X	AO		X!	AO	X	5
Pat	3					X	ARC!	X	3
Janet	6		X	AC			ARC		4
Maria	4		X		strange writing				4
Rachel	4	X	X			X			4
Jodi	4					X	NA		3
Beth	5	X	X			X	ARC	X	4
Carmen	4		X	AC	X	X	ARC		3
Kristin	3	X		AO	X				3
Arlene	4	X		AO	X	X	AO!		4
Tammy	7	X		AC		X	AO		4
Lisa	3	X		AC		X	ARC		2
Paula	4	X	X	AC			NA!	X	5

CODE

Original Questions		or	Write Back
#Q	Number of questions	LWQ	Leaves with questions
PVF	Professional vs friend	INV	Degree of involvement
AE	Adressess empathy		
AO/AC/NA	Anger overt/anger covert or not addressed		

WRITING ASSIGNMENT 5: THERAPEUTIC COMMUNICATION

Directions

We have read and discussed communication techniques that are useful in interviewing clients, and we have looked at some that are ineffective. Use the attached interview to explore your knowledge of these techniques, and think about how YOU might have responded if you were the nurse in this situation. First identify the technique this nurse used. Then either state what you think her purpose was, or insert a revision of her communication, and the purpose of your revision. You must include at least 5 revisions and their stated purpose.

Analysis of Writing Assignment 5: Therapeutic Communication

Dissonance Provoked:

This assignment fulfilled objectives related to both content and cognitive development. Readings and class discussion had focused on communication skills and on a variety of interviewing techniques. Students had been urged to work on developing open-ended interviewing techniques that encourage the client to explore issues related to his health.

1. Challenged to see that there are multiple ways
2. Challenged to see the possibility of their own meaningful communication; sense of agency
3. Challenged to utilize open, non-directive techniques that allow someone else to express their point of view

Coding of Writing Assignment 5: Therapeutic Communication

STUDENT	#REVISIONS	PURPOSE	OPEN	CLOSED	INV
Diane	5	5	1	4	3
Cathy	7	7	7	0	5
Bobbi	5	2	2	3	2
Cindy	9	2	4	5	4
Coreen	4	0	1	3	2
Freda	did not return				
Rita	5	4	1	4	3
Barb	3 (1)	2	1	3	2
Nancy	1 (4)		2	3	2
Marcia	5	2	4	1	4
Geri	5	4	4	1	4
Jess	did not do this part of assignment				1
Karen	5	2	4	1	5
Katie	did not do this part of assignment				1
Anne	4	4	2	2	3
Emily	5	4	5	0	5
Mary	6	6	6	0	5
Pat	did not return				
Janet	(6)	5	3	3	4
Maria	5	1	0	5	3
Rachel	5	5	5	0	4
Jodi	4	0	4	0	4
Beth	6	0	6	0	4
Carmen	(3)	0	2	1	2
Kristin	4	4	3	1	4
Arlene	6	4	4	2	4
Tammy	(4)	4	4	0	4
Lisa	5	0	4	1	3
Paula	5	6	5	2	3

CODE

#REVISIONS	Number of revisions of nurse's comments
( )	These offered on writeback (2nd try)
PURPOSE	Purpose of revision included
OPEN	Open communication techniques utilized
CLOSED	Closed communication techniques utilized
INV	Degree of involvement in this writing

WRITING ASSIGNMENT 6: USE OF THE NURSING PROCESS FOR
CLIENT/PATIENT-CENTERED CARE

In talking about nursing practice, sometimes we refer to the recipient of our care as "client," and sometimes as "patient."

Freewrite for 10 minutes in your journal about the difference, if any, between those two words, and your use of them.

Analysis of Writing Assignment 6: Nursing Process

Dissonance Provoked:

Generally students come to upper division unfamiliar with the term "client" as the recipient of nursing care. Faculty use both, as I had over the semester. We encourage the use of "client" because it is our philosophy that consumers of health care should be knowledgeable about their health, and equal participants with all other members of the health care team in decisions related to their health. In short, we want to use a term that indicates where the locus of control for one's health care should be for members of our society.

1. Challenged by the unfamiliarity with the term "client"
2. Challenged by the notion of individuals taking responsibility for decisions related to their care

Coding of Writing Assignment 6: Nursing Process

STUDENT	MTOW	PREFERENCE	INDE/DEP	EW	LWQ	D/N WB	INV
Diane	X	NONE	X ?	X	X	N/A	3
Cathy		NOT STATED	X?	X	X	N	3
Bobbi	X	NOT SURE	X	X		D	4
Cindy	X	PATIENT!	X	X		N/A	4
Coreen	X	PATIENT	X	X		N	3
Freda		PATIENT!		X		N	3
Rita	X	PATIENT	X	X	X	N	4
Barb	X	CLIENT	X	X		N	4
Nancy	X	PATIENT?	X	X	X	D	4
Marcia		PATIENT	X	X		N	3
Geri		PATIENT		X		N	2
Jess		PATIENT		X	?	N	3
Karen	X	PATINET	X!	X		N/A	3
Katie		PATIENT		X		N	3
Anne	X	? CONTEXT	X!	X		D	4
Emily	X	CLIENT	X	X		N	4
Mary	X	CLIENT	X	X	X	N/A	4
Pat	X	PATIENT	X	X		N/A	3
Janet	X	CLIENT ?	X	X	X	N/A	4
Maria		CLIENT	X	X		N/A	3
Rachel	X	PATIENT	X	X	X	N/A	4
Jodi	X	None given	?			N	2
Beth	X	?	X	X	X	N/A	4
Carmen		EITHER OK	X			N/A	1
Kristin		CLIENT	X	X		N	3
Arlene		PATIENT		X		N/A	3
Tammy		PATIENT ?			X	N/A	4
Lisa	X	CLIENT	X	X	X	N/A	3
Paula	X	CLIENT	X	X	X	N/A	4

CODE

MTOW	More than one way
OP	Gives preference
IND/DEP	Issue of independence/dependence addressed
EW	Exploratory writing
LWQ	Leaves with questions
D/N WB	Did/did not write back if asked

WRITING ASSIGNMENT 7: DOCUMENTATION

Please read the attached article:

Follows, J. (1987). You're the jury. Nursing Life, __( ), 26-32.

Please respond to the following questions in your journal:

1. Does the preponderance of evidence show that Ms. Greenfield's three nurses breached their duty while caring for her?
   A. Yes
   B. No

2. If yes, was their breach of duty a substantial factor in causing Ms. Greenfield's present condition?
   A. Yes
   B. No

3. If yes, what amount of money do you feel the plaintiff is entitled to for adequate compensation for her injuries? (You may use the values $1,200,000 to $2,500,000 from Dr. Terry's report as a guideline).

   $_____

4. Comment on what you think this nurse-lawyer's message is to us. Why do you think these kinds of problems arise, and could it happen to you?????

Analysis of Writing Assignment 7: Documentation

Dissonance Provoked:

The students had covered information in their text about recording (charting) and reporting skills. We had spent time in class discussing various formats of charting, and the importance of accurate, complete and timely documentation of client progress. The students were also taking an assessment course, and learning techniques of physical assessment. The article they read for this assignment concerned a court case about nurse negligence in relation to incomplete gathering of neuro assessment data, and incomplete reporting and recording of data that was gathered. I hoped that the article would help them see the importance of both their assessment techniques, and documentation skills.

1. Confronted with the possibility of nurse negligence
2. Confronted with the possibility that this could be one of them
3. Challenged to see that their assessments and diagnostic reasoning skills can make a major difference in client outcomes; the possibility of their own agency

Coding of Writing Assignment 7: Documentation

STUDENT	DMI	AI	RI	NAF	CHM	EW	LWQ	WB	INV
Diane	X			X	X			Y	3
Cathy	X					in WB	X	Y	4
Bobbi	X	X	X	X	X				4
Cindy	X				X			N	3
Coreen	X		X		X			N	3
Freda				X	X			N	2
Rita	X			X	X	in WB		Y	3
Barb	X	X			X				3
Nancy	X	WB						Y	3
Maria	X				X	X		N	3
Geri	X		X		X	X!	X		5
Jess	X				?	X		Y	5
Karen		X!	in WB		X	X	X	Y	5
Katie	X				?	X			4
Anne	X				X				3
Emily	X		X		?	X		Y	4
Mary	X		X	X	X	X	X		5!
Pat	X	X			NO				4
Janet		X	X	X!	NO	X	X	Y	5
Maria	X		X		X				5
Rachel	X	X			X	X	?		5
Jodi	X	X			X	X		N	4
Beth	X	X			X				4
Carmen	X	X							2
Kristin	X	X	X		X		?	Y	4
Arlene	X	X!	X		X	X	X	Y	4
Tammy	X				X			Y	3
Lisa	X	X			X			Y	3
Paula	X				NO				2

CODE

DMI	Documentation main issue	EW	Exploratory writing
AI	Assessment an issue	LWQ	Left with questions
RI	Reporting an issue	WB	Write back; Yes/No
NAF	Nurses at fault	INV	Degree of involvement
CHM	Could happen to me		

WRITING ASSIGNMENT 8:   NURSING ROLES

Please freewrite in your journal for 10 minutes in response to the following:

What situation that you have been involved in clinically has given you the best feeling, the biggest "high," because of your success in your role as a nurse? How did you know that you had done well?

Analysis of Writing Assignment 8: Nursing Roles

Dissonance Provoked:

1.   Challenged to acknowledge their nurse role. They
      see themselves as a student, not a nurse. They
      won't suddenly assume that role at graduation,
      but are growing into it now. Somehow, some of
      them need reminders or reassurance of that every
      now and then.

2.   Challenged to have a sense of agency: That this
      beginning practice is important and worthwhile.
      Writing about it, I hoped, would allow them to
      explore their work with clients/families in
      terms of the theoretical language of the profession.

Coding for Writing Assignment 8: Nursing Roles

STUDENT	WHY BEST	INDICATORS OF ROLE	SENSE OF AGENCY	DEGREE OF INVOLVEMENT
Diane	PRO/PRA	JA PRO	X	5
Cathy	HO X 2	JA	X	5
Bobbi	Fun			5
Cindy	HO			5
Coreen	ASSESS	JA	X	5
Freda	HO/PRA			5
Rita	HO/PRA		X	5
Barb	HO		X	5
Nancy	HO/CO		X	4
Marcia	HO/CO			4
Geri	HO	JA	X	4
Jess	PRO	PRO	X	4
Karen	CO			5
Katie	PRO	JA		5
Anne	HO/PRO	CR	X	5
Emily	HO	CR	X	5
Mary	HO/COM	JA	X	5
Pat	HO	PRO	X	5
Janet	Not in clinicals yet; wrote about teaching			
Maria	HO			5
Rachel	HO	PRO	X	5
Jodi	HO			4
Beth	HO/PRA			4
Carmen	HO/COM		X	5
Arlene	HO	JA	X	5
Tammy	HO		X	5
Lisa	HO			4
Paula	CO	JA	X	5

CODE

Why Best Experience

ASSESS   Success with physical assessment skills
CO   Communication therapeutic
PRA   Praised by client/family
PRO   Procedure practiced

Indicators of Role

CR   Discussed comfort in role
JA   Used jargon
PRO   Discuseed procedure skill development

WRITING ASSIGNMENT 9:   STRESS

We are now approximately 8 weeks into the semester.   I suspect that you can relate to the concept STRESS!   Please write the following:

A.   Spend 10 minutes freewriting about how you are feeling right now as a nursing student.

B.   Now spend 5 minutes writing about how you cope with the stress.

Analysis of Writing Assignment 9: Stress

This particular assignment was intended to give the students an opportunity to express their feelings, and to receive support. Usually at this point in the semester, the junior students are feeling extremely stressed, and may not realize that their classmates share similar feelings. They became very involved in this in-class freewrite, and many were not done writing the first section at the end of ten minutes. The second part of the freewrite gave them an opportunity to explore ways they were coping, and perhaps think about whether or not they were effective methods.

This was not a challenging assignment in the same way that the others were, but a "gift" in a way, for writing. When students evaluated the writing project at the end of the semester, this was an assignment they seemed to remember!

Coding of Writing Assignment 9: Stress

STUDENT	PRIMARY FEELING	COPING MECHANISM	EW	INV
Diane	excitement	support/others		3
Cathy	stressed	cry	X	5
Bobbi	overwhelmed	humor	X	5
Cindy	scared		X	5
Coreen	enjoy	+ attitude	X	5
Freda	little stressed	cook		3
Rita	stressed!	movies	X	5
Barb	stressed	run	!	5!
Nancy	stressed!	anger	X	5
Marcia	stressed	do other things	X	5
Geri	excited	take time out	X	5
Jess	overwhelmed	clean & cook	X	5
Karen	buried	relaxes at home	X	5!
Katie	stress/confused	doesn't	X	5!
Anne	stressed!	sleep/phone/clean	X	5
Emily	overwhelmed/fun	sleep/one night out	X	5
Mary	in limbo	exercise	X	5
Pat	too little time	work harder	X	5
Janet	lonesome	yardwork	X	5
Maria	did not make entry			
Rachel	anxiety/joy	support/others		4
Jodi	stress but ok	writes		4
Beth	frustrated	time out		4
Carmen	overwhelmed	procrastinate	X	5
Kristin	stressed/happy	exercise	X	5
Arlene	stressed	play with child	X	5
Tammy	pressure	time off Fri & Sat	X	5
Lisa	stressed	aerobics	X	5
Paula	less stressed	crying	X	5

CODE

PRIMARY FEELING	Word student used to describe
COPING MECHANISM	How student copes with stress
EW	Exploratory writing
INV	Degree of involvement in writing

WRITING ASSIGNMENT 10:   VALUES

Please write a 100-200 word summary of the attached article on one side of a piece of notebook paper in your journal. In writing the summary, remember that you are summarizing the author's point of view.

Ryan, E. R. (1987-1988). Viewing health education within the framework. Nursing Forum, 23, 60-61.

Once you have written this part of the assignment, please write a journal entry about your perceptions. How will you feel when taking care of a client/family who does not "comply" with recommendations concerning health care? How will you deal with the 19 year old who is having her fourth child; how will that effect your discharge teaching? And what about the 53 year old who smokes 1 1/2 packs per day, and has COPD?

Analysis of Writing Assignment 10: Values Clarification

Dissonance Provoked:

1. The article presented a challenge to present ways
    of thinking:
    --Values govern the choices that a client makes
    --The need to not merely tell prescribe (preach),
      but to encourage the client to discover what is
      important in terms of his own values
    --a supportive and nonjudgemental approach as
      catalyst for client self-discovery
2. Summarizing Ryan:
    --This is a challenge. Can they present another
      person's perspective without interjecting their
      own point of view
3. Responding to the situations of noncompliance
    presented in the writing assignment:
    --Situations challenge their values
      For dualists, that clients are noncompliant,
      have values different than their own. For
      multiplists, to think about the context of
      health behaviors
    --Ability to express their affective reaction
    --Do they think about how they might respond to
      situations in light of what Ryan suggested?

Coding of Writing Assignment 10: Values Clarification

STUDENT	SUMMARY	RESPONSE TO AFFECTIVE	SITUATIONS RYAN	LWQ	INVOLVEMENT
Diane	IA;CB	FRUSTRATION			2
Cathy	AC	FRUSTRATION	X	X	4
Bobbi	MS			X	4
Cindy	AC;GG		X	X	5
Coreen	IA;CB	FRUSTRATION			2
Freda	AC;IA				2
Rita	AC		X DWD	X	5
Barb	AC	FRUSTRATION			2
Nancy	AC;GG		RR PA	X	5
Marcia	No entry				
Geri	MS		MP		2
Jess	AC	FRUSTRATION	MP PA		3
Karen	AC	FRUSTRATION	MP PA		4
Katie	No entry				
Anne	AC	DIFFICULT	RR PA	X	5
Emily	AC	FRUSTRATION	RR		4
Mary	AC	FRUSTRATION	RR	X!	5!
Pat	AC		RR		5
Janet	AC	FRUSTRATION		X	4
Maria	AC		PA		3
Rachel	AC		RR DWD	X	5
Jodi	IA	SCREAM	PA		2
Beth	No entry				
Carmen	AC	FRUSTRATION	RR	X	5
Kristin	AC	FRUSTRATION	RR DWD	X	5!
Arelene	AC	DISAPPOINTED	RR	X	4
Tammy	IA	FRUSTRATION	PA	X	3
Lisa	IA	WHY	PA		3
Paula	No entry				

Code

Summary of Article

AC	Accurate
CB	Challenged by me
GG	Good grasp
IA	Inaccurate

Response to Situations

DWD	Deals with desire to prescribe
PA	Prescribes anyway
RR	Reflects Ryan

WRITING ASSIGNMENT 11:   HEALTH BELIEF MODEL

Please write a 100 - 200 word summary of the attached article on one side of a piece of paper in your journal:

Lowe-Phelps, K. (1984). The patient who fell through the cracks.   <u>American Journal of Nursing</u>, <u>84</u>, 1091.

In writing the summary, you are summarizing what the author has said.   Once you have written this part of the assignment, please make a journal entry about how <u>you</u> feel. You may wish to address how you see this situation.   What might you have done if you had been the nurse caring for this Mr. H. and his family?   Is there another way that this could have been handled?   If so, what might the outcomes have been?   Does the Health Belief Model help you make sense of what happened to Mr. H.?

Analysis of Writing Assignment 11: Health Belief Model

 Dissonance Provoked:

1. The article presented a challenge to present ways of
    thinking:
    --Confrontation with personal values related to
      health
    --The reality of the clients they will come in
      contact with
    --A concrete example of the need to meet the client
      on his own ground: to try to see his health care
      problems from his perspective and possible reasons
      for noncompliance
    --Article intended to arouse anger that this could
      happen
    --The reality that not all nursing has a happy
      ending
2. In summarizing Lowe-Phelps
    --Can they present another person's point of view
      without interjecting their own bias
    --Having done that, can they see alternative ways of
      handling the situation: multiple ways

1WRITING ASSIGNMENT 11: CODING

STUDENT	SUMMARY	AFFRES	SW	DW	LWQ	I
Diane	AC	O		X		3
Cathy	AC	FRUSTRATED		X		4
Bobbi	AC	ANGRY @ CLT				3
Cindi	IA	O	X	X	X	4
Coreen	IA	O	X			3
Freda	IA	ENJOYED!	X		X	3
Rita	AC	O	X	X		4
Barb	AC	DISGUSTED	X	X		3
Nancy	IA	DISTURBED		X	X	5
Marcia	AC	O	X	X		4
Geri	--	ANG @ SYS		X	X	5
Jess	AC	O	X			3
Karen	AC	FRUSTRATION	X	X	X	5
Katie	No entry					
Anne	AC	ANG @ SYS		X	X!	5
Emily	AC	CONFUSED		X!		5
Mary	AC	PITIFUL		X!		5
Pat	AC	O		X		4
Janet	No entry					
Maria	AC	O		X		4
Rachel	AC	O		X	X	5
Jodi	AC	ANG @ SYS			X	5
Beth	AC	O	X			3
Carmen	AC	FRUSTRATION	X		X	5
Kristin	--	ANG @ SYS		X		5
Arlene	AC	FEEL BAD		X	X	5
Tammy	AC	O		X		3
Lisa	AC	VERY DISTURED				4
Paula	--	HARD DECISION	X	X		5

Code

Summary of Article   Affective Response

AC	Accurate	O	None offered
IA	Inaccurate	ANG @ SYS	Anger at system
		SW	Handle same way
		DW	Handle different way

WRITING ASSIGNMENT 12:   SEXUALITY

Please write the following on one side of a sheet of notebook paper in your journal:

What would be the most challenging aspect/problem of a client's sexuality that <u>you</u> might encounter in your practice?

Then address the following questions:

1. How would this client be similar to you as a person, in terms of needs?

2. What 3 questions related to this person's problem/practice would you be most curious about?

3. How would you handle your feelings if you found yourself working with this client in the clinical area?

Analysis of Writing Assignment 12: Sexuality

Dissonance Provoked:

   The objective was to recognize their own discomfort
with the whole issue of sexuality. If students are ever
going to be able to effectively assess for and deal with
problems related to client/family sexuality, they need to
gain some comfort. In some ways, this was a
desensitization exercise. But they also had to confront
their own assumptions about sexual practices that differ
from their own, for example, similarities among people
despite differing values/practices.

1. Challenged to identif a practice/health problem
    they might encounter in clinical practice
2. Challenged to consider the similarities between
    people
3. Courage to confront their own curiosities

Coding for Writing Assignment 12:   Sexuality

STUDENT	PRACTICE/PROBLEM	#SIMS/ID	#QUEST/ID	INV
Diane	No entry			
Cathy	No entry			
Bobbi	No entry			
Cindy	No entry			
Coreen	Child Abuse	0	3	3
Freda	Homosexuality	3	3	5
Rita	No entry			
Barb	Homosexuality	3	3	5
Nancy	No entry			
Maria	No entry			
Geri	Perverted	3	3	5
Jess	AIDS	3	3	4
Karen	No entry			
Katie	Lesbian with AIDS	3	3	5
Anne	No entry			
Emily	Child Abuse	2	3	3
Mary	No entry			
Pat	No entry			
Janet	Homosexuality	1		2
Maria	Lesbian	3	3	3
Rachel	No entry			
Jodi	AIDS	4	3	4
Beth	Homosexual	3	3	5
Carmen	No entry			
Kristin	Gay with AIDS	3	3	5
Arlene	Homosexuality	2	3	5
Tammy	No entry			
Lisa	No entry			
Paula	No entry			

CODE

#SIMS/ID   Number of similarities identified
#QUEST/ID   Number of questions identified

WRITING ASSIGNMENT 13: LOSS, DEATH, GRIEF

Imagine yourself in the following situation. You are doing your Adult I practicum at Roanoke Memorial Hospital. The night before clinical you get your assignment and find that tomorrow you will be taking care of Susan Jones, age 21, with metastatic melanoma. She has been hospitalized numerous times for radiation and chemotherapy, but is not responding. She is considered terminally ill at this point, with but weeks to live. She was in her last semester of a nursing program before she had to finally quit because of her illness.

Please freewrite for 10 minutes in your journal about how you think you would respond to this clinical assignment. Hou do you anticipate working with Susan the following day? How will you handle the your feelings?

Now read the letter from this young woman.

How does what she has to say relate to what you wrote in your journal? Does it make it easier to think about how you might care for her?

Please write in your journal before the next class:

What would be the goals that would guide your care? What specific nursing actions might help Susan meet those goals? What would be the hardest actions to carry out?

Analysis of Writing Assignment 13: Loss, Death, Grief

Dissonance Provoked:

This assignment was intended to confront the student with the <u>reality</u> of caring for the dying client and his family and to the need to respond to their unique needs. The content that their text covers is related to the grief process, as described by Kubler-Ross for example, and things a nurse can do. It paints entirely too tidy a picture. It is too plastic, too clean...a student doesn't need to get involved, to allow herself to open up to the client's pain...in order to think about how to more sensitively intervene.

This writing was intended to get them involved, to get them to put themselves into the dying client's shoes. It was intended to help them think about the impact of that situation, how it would feel and what might truly be effective ways of caring for a client facing death.

1. Challenged by a situation they had not considered thought about being confronted with

2. Confrontation with their own mortality

3. Confrontation with their own assumptions about what would be helpful to the client facing death

4. Challenged to presenti another's (Susan's) point of view

Coding of Writing Assignment 13: Loss, Death, Grief

STUDENT	CONFRONTS ISSUE				OTHERS		PERSPECTIVE		INVOLVEMENT
	SS	OM	DE	FR	CS	GI	LC	MC	
Diane	X						X	X	3 retreat
Cathy	X				X		X	X	4
Bobbi			X		X	X	X		5 provoked!
Cindy			X			X	X		5
Coreen			X		X			X	4
Freda			X		X	X		X	4
Rita					X		X	X	4
Barb		X	X	X			X		5 provoked!
Nancy		X	X	X				X	5 provoked!
Marcia		X		X			X		5 fear
Geri	no entry								
Jess			X	X	X	X	X!		5 provoked!
Karen			X	X	X		X		4
Katie	X		X					X	4
Anne			X	X	X	X		X	4
Emily			X		X			X	4
Mary		X	X		X	X		X	5
Pat	X		X		X	X	X	X	5 provoked
Janet		X	X		X		X	X	4
Maria	no entry								
Rachel			X	X	X	X	X	X	5
Jodi		X	X	X		X		X	4
Beth			X		X		X	X	4
Carmen		X			X		X	X	5
Kristin	X		X	X		X		X	5 provoked!
Arlene		X		X			X	X	4
Tammy					X		X	X	4
Lisa			X	X			X		4
Paula			X						4

CODE

Confronts Issue	Other's Perspective
SS Sees self in Susan	CS Takes cues from Susan
OM Addresses own mortality	GI Gets involved
DE Talks about death	LC Admits loss of control
FR Addresses fears	MC Must maintain control

WRITING ASSIGNMENT 14:   EVALUATION OF TEACHING LEARNING

PROJECTS

Please evaluate each of the teaching learning projects with the following form. I will include comments from you in the evaluation I do for each project.

Title of

Project:_____

Presentors:_____

Date:_____

Dear

_____,_____,_____,and_____,

The thing I liked best about your presentation was

Three things that I would do in the same way that you did would include:

Three things that I would do differently would include

You did this well, but another way would be

Some other thoughts that I would share with you

Analysis of Writing Assignment 14:   Evaluation of Teaching-
Learning Projects

Dissonance Provoked:

This was the last writing assignment of the semester
for students to enter in their journal. The students were
presenting group teaching projects in class that provided
them with the opportunity to put into practice some of the
content they had learned regarding health teaching. The
topics chosen for presentation were related to a health
concerns of their peers and included such issues as breast
self-exam, stress, cholesterol, contraception, and sexually
transmitted infections.

The writing assignment consisted of a set of letters
to peers. The student was asked to complete a letter for
each teaching project that she did not participate in. The
challenge was to evaluate the project. The student had to
first think about the project from the viewpoint of the
presentors, as well as to consider other ways in which the
project could have been done. In addition, the student was
asked to sign the letter. I informed students that their
comments would be incorporated into the final evaluation of
the teaching project.

1.   Challenge to share in the perspective of the
     presentors
2.   Challenge to constructively critique project,
     providing an alternative point of view
3.   Commit to their point of view, via their signature

Coding of Writing Assignment 14: Evaluation of Teaching-
Learning Projects

STUDENT	# EVS	LIKED	3 SAME	3 DIFF	AN.WAY	OTHER	INV
Diane	4	1111	3333	3333	1111	1111	3
Cathy	4	1111	3333	0321	0101	1111	3
Bobbi	4	1111	3333	2420	1121	1111	3
Cindy	2	11	32	00	00	11	2
Coreen	2	11	33	00	00	01	1
Freda	4	0111	1340	1011	0000	0110	2
Rita	4	1110	3333	3333	1111	1111	5
Barb	3	101	113	132	000	010	2
Nancy	4	0010	3333	3233	1111	1011	4
Marcia	3	111	232	331	110	111	3
Geri	3	101	323	020	010	110	2
Jess	3	111	333	320	113	113	4
Karen	4	1111	3223	3022	1010	1000	4
Katie	4	1111	3333	3332	1111	1111	3
Anne	4	1000	3333	2310	1100	1111	3
Emily	3	110	233	232	101	0110	3
Mary	4	2111	3233	1000	1000	1101	3
Pat	4	1010	3333	2323	1111	0100	3
Janet	4	1322	2333	3232	1001	1210	5
Maria	4	1111	3333	3223	1211	1211	5
Rachel	4	0111	3333	3333	1111	1111	5
Jodi	2	11	43	20	10	11	2
Beth	4	1101	3333	3333	1001	0111	5
Carmen	4	1131	3333	2223	2111	1111	5
Kristin	4	1111	3433	2331	1311	1111	5
Arlene	3	111	233	022	100	000	2
Tammy	4	1011	3333	3223	1111	1111	3
Lisa	3	000	423	213	013	111	2
Paula	3	111	333	233	010	111	4

CODE

#EVS	Number turned in (possible 4)
LIKED	Thing I liked best
3 SAME	3 things I would do in same way
3 DIF	3 things I would do differently
AN.WAY	Another way way to do this
OTHER	Other thoughts I would share
INV	Degree of involvement

Writing Assignment 15:   How I Learn Best

You may recall that in August you wrote to us about how you learn best. The following essay may look familiar to you: It should? It is the same essay you addressed before. I would like you to write to us from where you are at this point in your education. Please do not try and remember what you wrote before, but write about how you see learning at this point in your educational career.

Write an essay, about 600-1000 words in length, telling us how you learn best. Some issues that you <u>might</u> want to speak to include the learning process, the teacher's role, your role as a learner, the kind of class "atmosphere" you prefer, the learning environment that is most conducive to your learning, the kinds of assignments that help you learn the most, and the relationship between the student and teacher.

In order to be effective in your description, please write a well-organized essay that is logical and, where appropriate, support your ideas with evidence; that is, be as specific as possible, using examples from your own past experience as a student. Remember, there are no right or wrong answers here. What we are looking for is information that will help us plan the best possible learning experiences for you! You may use as much of this bluebook as you need to in order to complete your essay.

Karolyn Whittlesey Givens was born in Pontiac, Michigan, March 20, 1942. She earned her Bachelor of Science in Nursing from Wayne State University in 1965 and a Master of Science with a major in maternal-child health nursing from Boston University in 1978.

Karolyn has practiced medical-surgical, public health and obstetrical nursing in Michigan, Washington, D. C., Massachusetts, Nebraska, and Virginia. She has also been involved in nursing education in inservice and continuing education, and in a baccalaureate program.

She has been active in professional organizations including the National League for Nursing, NAACOG, and the Virginia Perinatal Association. Karolyn was inducted into both Theta and Epsilon Psi Chapters of Sigma Theta Tau, and Phi Kappa Phi.

Karolyn lives in Blacksburg, Virginia, with her husband Clarence and three children, Kristin, David and Emily. She is an assistant professor of nursing at Radford University.