Contemporary Alternate Pedagogies as Heralds of a Paradigm Shift

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Over the last few years, a number of theories have emerged which bring into question some of the established practices in our educational system. It appears that these theories have resulted from a dissatisfaction with the **product-oriented** approach to education, the approach that has dominated the practice since public education began. While theorists such as Dewey (1902, 1938) and Whitehead (1929) proposed a more **process-oriented** approach to education in the early 1900s, their ideas, with a few minor exceptions, have not swayed the traditional "transmission" approach which is so deeply rooted in our present system. To explore whether these recent theories are significant enough to contribute to a fundamental shift in the present perspective will require an analysis of their assumptions and their potential impact on educational practices, and an investigation into how these differ from the established assumptions which dominate current approaches to education. The contemporary theories I would like to consider are the alternate pedagogies that are becoming more prevalent in the literature: the constructivist approach, critical pedagogy and feminist pedagogy. While it is beyond the scope of this paper to include a thorough analysis of these pedagogies, I hope to review some of the key components of each.

Prior to a discussion of the pedagogies, an exploration of what is considered to be "a fundamental shift" seems in order. The most frequently referenced work in discussions of major shift is Thoma Kuhn's (1962) book *The Structure of Scientific Revolutions.* Following the example of Soltis (1971) in his article *Analysis and Anomalies in Philosophy of Education*, I will use the standards set in Kuhn's work to identify some of the signs of an upcoming shift.

WHAT ARE THE SIGNS OF THE OCCURRENCE OF A FUNDAMENTAL SHIFT?

One of the signs of an imminent shift appears when there is a change in the rules which govern an established practice; a change which requires the reconstruction of prior theory and the re-evaluation of the established facts developed from the theory (Kuhn, 1970). When this occurs, deeply entrenched expectations are violated. Kuhn describes how these rules are changed when anomalies occur that cannot be accommodated by the current theories. Initially, when an anomaly occurs it may not be seen as such. But when it is repeated, an awareness of there being something wrong occurs, and eventually the anomaly comes

to be anticipated (Kuhn, 1970). These anomalies often take the form of an increasing recognition of problems which seem to resist resolution by normal methods established within the model. When we look at the increasing numbers of students who are dropping out of our educational institutions and the increasing violence occurring within our schools, we begin to question whether or not our existing model of education is working, especially when, at the same time, one hears claims of more efficient educational methodologies (computer aided instruction, programmed instruction, etc.). Kuhn sees these problems or anomalie as preparing the way for change. When an anomaly becomes more than just another puzzle, the transition to crisis has begun.

After a period of pronounced failure in the process of normal problem solving activity, novel theories begin to emerge as a direct response to crises. Based on their observation of the many books and articles referring to the crisis in our education system, there are a number of educators who feel we are in the midst of a crisis at the present time (Kozol, 1985; Ryan, 1985; Stedman & Kaestle, 1987). This crisis is being noted by people within educational institutions (educators, students and parents) as well as by people on the outside (businesses and those who use the products of the educational system). Historically, social pressure created by such crises has an influence on the breakdown of established theories (Kuhn, 1970). If people begin to realize that established theories are failing to effectively deal with their problems, the social climate then becomes ripe for a fundamental shift. In my opinion the theories proposed by the alternate pedagogies represent a response to these unsolved problems. To determine if these contemporary theories of education presage the emergence of a fundamental shift, it is necessary to consider the assumptions and implications for educational practice of each, and to see this in relation to the perspective of today's educational/model.

WHAT IS THE PERSPECTIVE OF OUR PREVAILING PEDAGOGY?

If we look at the theories of knowledge which have informed the practices that govern schools today, perhaps it will become clear why other theories have emerged. Scheffler (1967), in his description of three teaching models, said that the impression model was the most prevalent model in the education system of his day. Even though this work was written 25 years ago, the current literature would lead us to believe this model is still dominant in schools today (Standish, 1991). The impression model is similar to the transmission model of education: knowledge is believed to be made up of elementary units of experience, which are grouped, related and generalized. What units will be taught and in what sequence is determined by the teacher or the curriculum specialist. A fundamental assumption within this model is that the parts of a given learning experience are equal to the whole. This model, which is closely related to the behavioral model influenced primarily by Skinner (Clark, 1979), has had major impact on the practices in education today. Programmed instruction and sequenced objectives have become an integral part of the teaching methods and the materials used in our institutions. The programmed materials and the assessment practices associated with the model have, in fact, spawned large industries, thereby further ensuring their entrenchment. As an aside, it is interesting to note that these same industries produce materials and workshops for teachers on how to motivate students to learn. This need to provide an external motivator in the learning process is the antithesis of the alternative pedagogies.

In the dominant educational approach the role of the teacher is to transmit a predetermined curriculum. The teacher is seen as the expert. The role of the students is to be passive recipients of knowledge with an assumption that they will transfer the knowledge on their own to other aspects of life. The teacher is more concerned about outcomes or products of the learning, as opposed to the process of learning. Evaluation is often based on the concept that to each question there is only one correct answer. Teachers are expected to respond to students who are having difficulty learning by simplifying the material (Skinner, 1984).

Clark (1979) fourteen years ago warned us of the nightmares that could develop if this behavioral approach gained a significant influence over the process of education. He describes the appeal of an approach which offers instant control to educators who are faced with large classes and increasing societal problems. The movement toward accountability of teachers and programs of education has also enhanced the popularity of this approach. As Standish (1991) and others have pointed out, those nightmares have been realized and the circular nature of the reasoning of the model, and the short-term successes of the approach make it difficult to bring those who are inside the model to see and acknowledge its deficiencies.

Some theorists, Scheffler, Hirst, and Peters for example, have argued against the prevailing approach to education for years (Peters 1967), but

the resistance to arguments based on a liberal tradition stands firm: "It is as if the language of objectives has acquired a life of its own: a language of problems, questions, and answers is set in motion which is self-perpetuating" (Standish, 1991 p. 173).

While the liberal educators are in agreement with the alternate pedagogies in their rejection of the behavioral approach to education, their understanding of knowledge differs from that of the alternative pedagogies and should be noted here. Perhaps the best known and most influential concept of knowledge on educational practice has been Hirst's theory of forms of knowledge. While I am aware that Hirst (1992) in a recent paper stated that his forms of knowledge were limited by a rational, autonomous perspective, his concept of knowledge has been influential in the field and should be considered. Knowledge, he maintained, is separable into a number of distinct forms. These forms are "not mere collections of information but rather complex ways of understanding experience which man [sic] has achieved." (Hirst, 1974) p.122. These forms of knowledge are based on the principles of impartiality and universality. Martin (1981) has pointed out that Hirst's forms of knowledge are important but are too narrow, representing only the productive aspects of education.

A more general curricular paradigm is needed; one that does not ignore the forms of knowledge, but reveals their proper place in the general scheme of things as but one part of a person's education; one that integrates thought and action, reason and emotion, education and life; one that does not divorce persons from their social and natural contexts; one that embraces individual autonomy as but one of many values. (p. 57,58)

WHAT ARE THE ASSUMPTIONS OF THE ALTERNATE PEDAGOGIES?

To determine if certain contemporary theories of education reflect a fundamental shift in thinking it necessary to examine their assumptions and their implications as they apply to educational practice. While there are a number of elements that could be included in an exploration of approaches to teaching (Hare & Portelli 1989; Osborne, 1991), due to time and space limitations I have decided to focus on how each of these pedagogies views knowledge and how these views influence the roles of both the teacher and student.

The Constructivist Approach

The Constructivist pedagogy closely relates to the work of Dewey (1902, 1938), and Whitehead (1929) and originates in the work on children's development of Piaget (1955, 1970), and Vygotsky (1978, 1962). Perhaps its best known recent application is in the whole language approach to reading and writing.

An understanding of how the constructivist views knowledge gives us insight into the basis of this theory. Here we find in this theory a change in focus from the concept of **transmitting** knowledge to the active involvement in **creating** or **constructing** knowledge. Knowledge is thought to be formed through a process of transformation (Piaget, 1970). Old knowledge is changed in the process of developing new understandings. This clearly differs from the concept that learning is an additive process, a concept held by dominant educational theories. As Fosnot (1989) describes it, "learners, in an attempt to make sense of new information and experiences, transform and organize in relation to their own meaning bases" (p. 2). Fosnot also explains that the restructuring occurs through engaging in problem-posing and problem-solving.

In this model, learning is not seen as an accumulation of facts and associations. This is where the notion of the whole being greater than the sum of its parts enters into the understanding of children's learning. Since each child takes in information and integrates it with her/his own experiences, one cannot assume that the child has given the same meaning to the information as the teacher might have intended. Nor is the way the child might integrate the new information always predictable: often the information may not be integrated at all. Of course, the more one knows about a child and his/her experiences the more one is able to judge whether the information would, in fact, be relevant to the child. This has implications for the existing model of education which operates from a set curriculum, where students are expected to learn the prescribed information and be able to demonstrate their knowledge through exam procedures which allow little room for different understandings of the material.

Knowledge, in this model, is also considered to be self regulated, which suggests that children do learn when they are developmentally ready for the information and are experientially ready and interested in the topic (Dewey, 1902; Poplin, 1988b, Fosnot, 1989; Weaver, 1990). This implies that forcing a curriculum on a child who is not ready for it experientially will not result in any kind of meaningful learning. It is true that some children are able to learn the material in order to answer

exam questions but whether it becomes meaningful to them and is generalized to other areas of their lives is left for the most part to chance.

Knowledge is also seen as "socially formed and culturally transmitted" (Vygotsky, 1978, p. 126). In many ways, our present system works against the social development of knowledge. Students who are asked to sit at a desk and who have little opportunity for discussion, are not given the benefit of having others help them make the necessary links to their past experiences. Since knowledge is socially formed and culturally transmitted, opportunities for collaborative learning should be incorporated into the class: there should develop what Dewey (1938) calls a community of inquiry. This contrasts with our existing school environment where competition is an integral part of educational practice. In everything from stickers to scholarships the notion of competition exists. Even group work is sometimes carried out in a competitive fashion (Poplin, 1992).

The relationship between Dewey's notions of education and the above assumptions are numerous. Dewey felt that knowledge came from experience. In his book *Experience and Education*, he explains what he calls "the continuity of experience":

> *As an individual passes from one situation to another, his world, his environment, expands or contracts. He does not find himself living in another world but in different parts of the same world. What he has learned in the way of knowledge and skill in one situation becomes an instrument of understanding and dealing effectively with the situations which follow.* (1938, p.45)

Teaching from the constructivist point of view is child-centered. This stands in opposition to a subject-centered approach and has important implications for the role of the teacher and the student. The teacher's role is to be a facilitator of learning: to draw out what is in the students' minds and to carefully guide them to a new level of understanding. In order to accomplish this, teachers must be sensitive observers of the learning process so that they can take advantage of opportunities for learning as they arise. To facilitate the learning experience, an awareness of a child's interest and background is necessary.

Vygotsky's concept of the "zone of proximal development" helps us to understand the delicate nature of facilitation. Vygotsky believed that children gained increasing ability to control and direct their own behavior. He recognized the need for adult guidance at crucial points in the learning process. The zone of proximal development is the distance between the child's actual developmental level (where the child can solve problems independently) and the level of potential development which can be reached with adult guidance and collaboration with more capable peers.

This type of natural facilitation can be observed in the learning of a language. Parents, quite naturally, provide guidance by taking their cues from the child, but they are careful to not to provide more than the child is ready to absorb. It is interesting to note how many theorists and researchers use what is known about the development of language as their model for facilitation (Piaget, 1955; Vygotsky, 1962; Whitehead, 1929, 1939; Holdaway, 1979). This natural form of facilitation which is proposed by the constructivist rarely occurs in the reductionist oriented classroom. Some would argue that the amount of information given to the child is too much and at the wrong time.

Subject matter is to be determined by both the student and the teacher with the teacher being sensitive to the student's interest and developmental level. There is a need to select the most relevant curriculum at the most opportune time. Again we see a similarity to Dewey's work. Greene (1989), in her article *The Teacher in Dewey's Work* describes how Dewey intended for the teacher to deal with subject matter:

> *His or her obligation was to make the subject part of the child's experience: to find out what there was in the child's present experience that might be usable with respect to the subject and how the teacher's own knowledge of the subject might help in interpreting "the child's needs and doings, and determine the medium in which the child should be placed in order that his growth may be directed."* (Dewey, 1902, p.2, 26)

Critical Pedagogy

Critical pedagogy, like the constructivist approach, has emerged as yet another challenge to the existing educational system. The emphasis of this theory centers around the social construction of knowledge and how this impacts on the educational process. This approach has its roots in critical education theory, which views school knowledge as historically and socially rooted, and interest bound (McLaren, 1989). Critical pedagogy focuses on helping students examine the sociopolitical forces influencing the structure of institutions that are a part of their lives, including the schools themselves. Integral to the approach as well is an examination of the knowledge that is validated by these structures. The aim of the criti-

cal examination is to promote social justice and social transformation (Shor and Freire, 1987; Giroux, 1988). When examining what this says about learning and teaching we begin to envision a picture of its significance. McLaren (1989) describes what teaching and learning should be in critical pedagogy:

> *It should be a process of examining how we have been constructed out of the prevailing ideas, values and world views of the dominant culture... Teaching and Learning should be a process of inquiry, of critique; it should also be a process of constructing, of building a social imagination that works within a language of hope.* (p.189)

Critical pedagogists recognize that knowledge must be made meaningful before it can be made critical (Giroux, 1988). Therefore teachers should take the problems and needs of their students as their starting point. However, they also should focus on how and why knowledge gets constructed and why some knowledge is legitimized and other knowledge is not (McLaren, 1988).

> *Knowledge is relevant only when it begins with the experience students bring with them from the surrounding culture; it is critical only when experiences are shown to sometimes be problematic (e.g., racist, sexist); and it is transformative only when students begin to use knowledge to help empower others, including individuals in the surrounding community.* (McLaren, p.189)

Critical pedagogists value the experiences and stories of their students and monitor their pedagogical practices so as not to unwittingly silence their students. The teacher's role is to assist students in examining the familiar by providing them with a framework within which they can begin to answer questions. Shor & Freire (1987) suggest that the best way to create classrooms where this type of work can be accomplished is through dialogical communication. He sees dialogue creating the opportunity for student reflection and action.

> *This dialogic method systematically invites students or audiences to think critically, to co-develop the session with the 'expert' or 'teacher' and to construct peer-relations instead of authority-dependent relations.* (p. 41)

Part of this approach to teaching requires finding a way to counteract the hierarchy inherent in a classroom situation by transforming the power relations between the teacher and the student.

Teachers need to be aware of not just the problems in the community which need to be examined, but also of the community's strengths so that they can help students see possibilities (Simon, 1987). By helping students question the authoritarian social structures which have influenced their lives and by creating opportunities to define alternatives, critical pedagogists hope to empower the powerless and transform existing social inequalities and injustices.

This notion of questioning the structures that students find themselves in is quite different from the education practices which are focused on how to get students to adapt to the curriculum demands. This curriculum is defined by experts who are often removed from the experiences of the students. The curriculum that is in the present system as mentioned earlier focuses on a limited view of knowledge which represents the dominant culture.

Feminist Pedagogy

The proponents of feminist pedagogy agree with the meaning-seeking and critical aspects of the teaching and learning processes described, but they also feel there are additional issues which have not been addressed. As Martin (1985) has pointed out, current educational theorists have not effectively dealt with the gender issue in education. Our concepts of education, she contends, have been tied to the processes which are primarily associated with male traits of objectivity: those traits that are analytical and rational, as opposed to the more feminine-associated caring, connectedness, and nurturance which she considers to be equally important to society. These reproductive processes have not been given due consideration in our present approach to education. She proposes a redefinition of our educational model to include both the reproductive and the productive processes. Martin is not suggesting that this be simply inserted into to the curriculum as an additional subject, but she sees these reproductive processes as being integrated into the existing subject matter and methods of teaching. She points out that an integration of this sort is likely to change our understanding of the already identified forms of knowledge (Martin, 1981). Like the constructivists, she sees the reproductive forms of knowledge actually reconstructing our existing understanding of how knowledge is built.

The exclusion of women's lives and values from public dialogue has created a one-sided focus on the rational, autonomous person (Greene,1988). The only acceptable public dialogue to date has been the one dominated by forms of knowledge which exclude the feminine voice, as well as of

other cultures. The feminist perspective which has been relegated to the private world, contains knowledge needed in our classrooms and in our society in general (Marlin, 1988). In response to these concerns and others raised by feminist theory the concept of a feminine pedagogy has emerged.

Feminist pedagogy does not, as yet, have its leaders or authorities as does critical pedagogy, but appears to be emerging from two groups: one which comes from concern for instruction in women's studies and a second group arising within schools of education where emphasis is on a feminist social vision (Gore, 1990). Some of the more common aspects of feminist pedagogy noted in the literature are as follows.

Maher (1987) sees the rationale of feminist pedagogy based on the understanding that all human experiences are centrally shaped by the fact of our being male or female and by our race, class and/or culture. She describes feminist pedagogy as follows:

> ....*a combination of teaching practices and curriculum content that explicitly relates students' viewpoints and experiences to the subject matter, yielding for any topic a sense of personal involvement and multiple mutually illuminating perspective taking.* (p. 186)

Maher also stresses that "reason and emotion, thinking and feeling, and public and private roles and experiences are valid ways to make sense of the world" (p. 188). Feminist pedagogy challenges the ideals of universality and objectivity (Culley & Portuges, 1985) and recognizes the role of perspective and vantage point. Adherents claim that denying the necessity of a perspective increases the danger of having an unconscious perspective (Maher, 1987). Subjectivity is seen as a part of our lives.

> *Whatever the substance of one's persuasions at a given point, one's subjectivity is like a garment that cannot be removed. It is insistently present in both the research and nonresearch aspects of our life.* (Peskin, 1988, p.17).

The role of the teacher in this model of pedagogy is to arrange the learning experience so that the subject can have personal meaning for the students. The teacher is to be a democratic facilitator as in the other two pedagogies. The difference lies in the explicit attention paid to the development of authentic relationships between the teacher and the students and among the students themselves. Teachers are expected to enter into relationships with students which break down the barriers that exist in a classroom environment. An atmosphere of trust is nurtured, wherein the personal can be explored and valued. Authenticity also implies that the teachers need to articulate their own views so that they do not remain hidden from the students, but at the same time work to not let their views overshadow the developing views of the students. The power relationship in the classroom is discussed and at least some power is shared. The extent to which power is shared is still the subject of much disagreement (Culley & Portuges, 1985). The classroom environment is one that is filled with both the joy and rigor described by Shor and Freire (1987). Students are expected to integrate the skills of critical thinking, which is grounded in everyday experiences, with respect for and the ability to work with others (Shrewsbury, 1987). The promotion of connectedness in the classrooms is an integral part of the feminist pedagogy: connection of the subject to society in general and the everyday problems associated with it; a connectedness between the community of learners, and connectedness of what is being learned to their experiences.

In contrast to the dominant educational practice which encourages competitive interactions, feminist pedagogy tries to create a learning experience wherein people care about each others' learning as well as their own: a place where multiple perspectives are valued and encouraged: a place where objectivity is questioned and awareness of one's own subjectivity is fostered.

DO THESE PEDAGOGIES REFLECT A FUNDAMENTAL SHIFT?

When we look at what the constructivist, the critical and the feminist pedagogies say about our prevailing educational theories, we begin to see the potential impact of these ideas and the profundity of the shift in education which is being suggested. If Kuhn is to be believed, these are sure signs of a major shift to come. Consider:

These pedagogies embrace a view of knowledge and approaches to teaching which differ significantly from the dominant educational view: here we find a new model emerging which values the reproductive ways of knowing as well as the productive: we find that knowledge is considered to be socially constructed, as opposed to static. These theories see knowledge as subjective, embracing the concept of multiple perspectives, as opposed to objective: knowledge is considered to be connected, and not isolated. Taken to heart, these differences alone can impact significantly on

how we as educators view the world and on how we practice.

With respect to the role of the teacher in these pedagogies, one notes that the role of the teacher changes from that of a transmitter of knowledge to that of a facilitator. As well, the power relationship between the teacher and the student begins to change with students being given more control over their learning. Authentic learning and authentic relationships are fostered by valuing personal experiences, and there is more flexibility in the choice of subject matter as the teacher tries to make the classroom experience more meaningful. As well, in these models, teachers are urged to encourage collaborative work as opposed to competitive interactions, and the teacher is encouraged to become actively involved in the community in which she/he teaches.

In these pedagogies, students are encouraged to critically reflect on their learning experiences as opposed to passively accepting what is being taught and entering into discourse with teachers and fellow students. They are urged to become actively involved in transforming the schools and the community.

A shift in thinking of this magnitude will, of course, spawn many new questions about how we go about teaching, many of these questions having only begun to be explored.

Considered together, all of these differences seem to point to the onset of a significant change in the rules which have governed our prevailing practice in education, this being, according to Kuhn, yet another sign of the beginning of a fundamental shift. These changes will require us to reconsider the knowledge we value, the subjects we teach, the methods we use, our evaluation techniques and our power relations in the classroom. The effects of changes suggested by these alternate pedagogies will effect a wide spectrum of educational practices and institutions.

Whether these three pedagogies remain separate or begin to merge will have to be seen. Certainly the ground common to all three is substantial, and will prove a philosophical force to be reckoned with when standing in comparison with the present educational framework. Already there is some evidence that the constructivists are adapting their theory to include the concepts of critical pedagogy (Harman & Edelsky, 1989).

All of these theories, represented in the three pedagogies, have raised a number of issues which could be called anomalies and have begun to suggest alternate theories for addressing the problems. Again, Kuhn suggests that these are signs of a fundamental shift. He also points out that a shift does not occur until there is a viable theory to take its place. While there are still many problems to be addressed, the theories in question seem to be paving the way for profound change. They are suggesting a new vision for education and questioning the assumptions upon which our dominant system has been built. The constructivist view has already made significant impact at the elmentary level of education.

Perhaps the final and most comforting perspective on this matter can be found in the work of Kuhn (1970), who said that what is required of a new paradigm is not the solution to all the existing problems, but to create an environment of hope and a feeling that it is possible to move forward. I feel that these theories do provide us with this hope of finding another way to approach education; one that embraces diversity with a more balanced philosophical framework for a needy and struggling society.

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